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A COMPREHENSIVE ASSESSMENT OF AIR TRANSPORTATION
IN MAINLAND CHINA

by
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ABSTRACT

This study attempts to obtain an overall picture of air transportation in Mainland China, domestic and international, past and present, so as to lay the ground for further studies.

A brief history of early aviation development in China is described from limited available sources: the first sign of aviation in 1919, the starting of commercial aviation in 1929, general development under the Nationalists before 1949, and the establishment and growth of CAAC under the Communists.

Then, the present situations of airline operations, CAAC and foreign, are discussed. As for domestic operations, flight schedules and timetables, a complete route map showing the important air hubs in the network, the direct service networks and summaries of the connections, fares, frequencies, non-stop distances etc. of 22 major cities are detailed to give a general view of CAAC's scheduled services. Internationally, an account of all foreign airlines serving China, their schedules and timetables, summaries of their present operations are tabulated. Next, CAAC's fares and rate structure, aircraft equipments and a comparison of CAAC with other airlines are touched upon.

A brief description of airports and navigation aids in China is included. Maps are drawn showing their locations.

Finally, the development of China's aviation relationships with her foreign partners is presented. Major partners like the U.S.S.R., Pakistan, France, Ethiopia and Japan are discussed in details.

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CHAPTER 1

AN INTRODUCTION

Although China had her first attempt to build up a commercial aviation system back in 1919, because of fightings among the warlords, it was not until 1929 that the first commercial airline (the China National Aviation Corporation) was established. Under the Nationalists, aviation grew to a peak level in 1947 despite a lot of difficulties in operations.

However, the civil war in 1949 had almost destroyed everything that were built up during the years. After the war, only a few aircraft were left and the airports and supporting facilities were all in bad shape.

Consequently, the Communists had to start everything from scratch. However, since then, growth had been continuous, and aviation in China is now taking a better shape. Routes were laid out among the major cities, new airports were constructed, and navigation facilities were built. With the purchase of the Tridents, IL-62s and the Boeing 707s in the past few years, China is gradually building up a modern fleet.

Besides, during the past three to four years, China seems to have emerged from its isolation in the 50's and 60's. There have been numerous developments: the admission of the People's Republic of China into the United Nations and later on the International Civil Aviation Organization, the establishment of many diplomatic relationships, the U.S. President's trip to the Mainland, and the many many western missions and delegations' invitation to Peking.

In particular, aviation developments of China with other countries had become prominent. They include the purchase of foreign aeronautical equipments, the signing of the many air agreements that gives China the rights to serve all the Continents.

Even so, the air transportation system in Mainland China has remained little known to the Western world. Until very recently, its airline, the CAAC, were known only to a few of her neighboring countries.

The coming prospects of the Chinese flag carrier going out for world service and the trend that the Chinese leaders seem determined to improve its domestic operations have prompted me to this study.

Compiling a comprehensive reference concerning air transportation in Mainland China, past and present, domestic and international, is the primary goal I set out to attain in this study.

A second goal is to analyse the present network, to research on past and present foreign relations and developments, to speculate on future prospects, and to forecast the future demand so as to formulate a growth plan on the present deficiencies.

However, the lack of data and sources of reference has make this job extremely difficult. Compounding to this difficulty is the unreliability of the sources and sometimes even conflicting data.

The first part of this thesis is aimed at giving the readers a general background. The latter part presents the air transportation in China in chronological order.

Chapter 2 discusses some basic facts about China, her geography, her population distribution, her railways and roads development, and her tourist infrastructure.

Chapter 3 presents the historical development of civil aviation in China before 1949, the year the People's Republic of China was established. Efforts were made to cover commercial airline development, the evolution of air laws and regulations, and the international air agreements signed during that period.

Chapter 4 deals with the early developments after 1949, the establishment of the Civil Aviation Administration of China and its growth in the 1950's and 1960's.

Chapter 5 examines the present situations of airline operations, CAAC and foreign, in China. Detailed breakdown of the domestic network in late 1973 were drawn to show the connections among major cities. Summaries of the connections, fares, frequencies, and non-stop distances on both the domestic and international networks were tabulated. Next, the two-tier system of domestic fares, the present aircraft equipments of CAAC were discussed.

Chapter 6 gives a brief description of airports and navigation aids in China. Maps were drawn to show their locations.

Chapter 7 concludes the study with an account on the development of China's aviation relationships with her foreign partners.

CHAPTER 2

BACKGROUND OF THE COUNTRY

2.1 Geographical Background¹

2.1.1 General

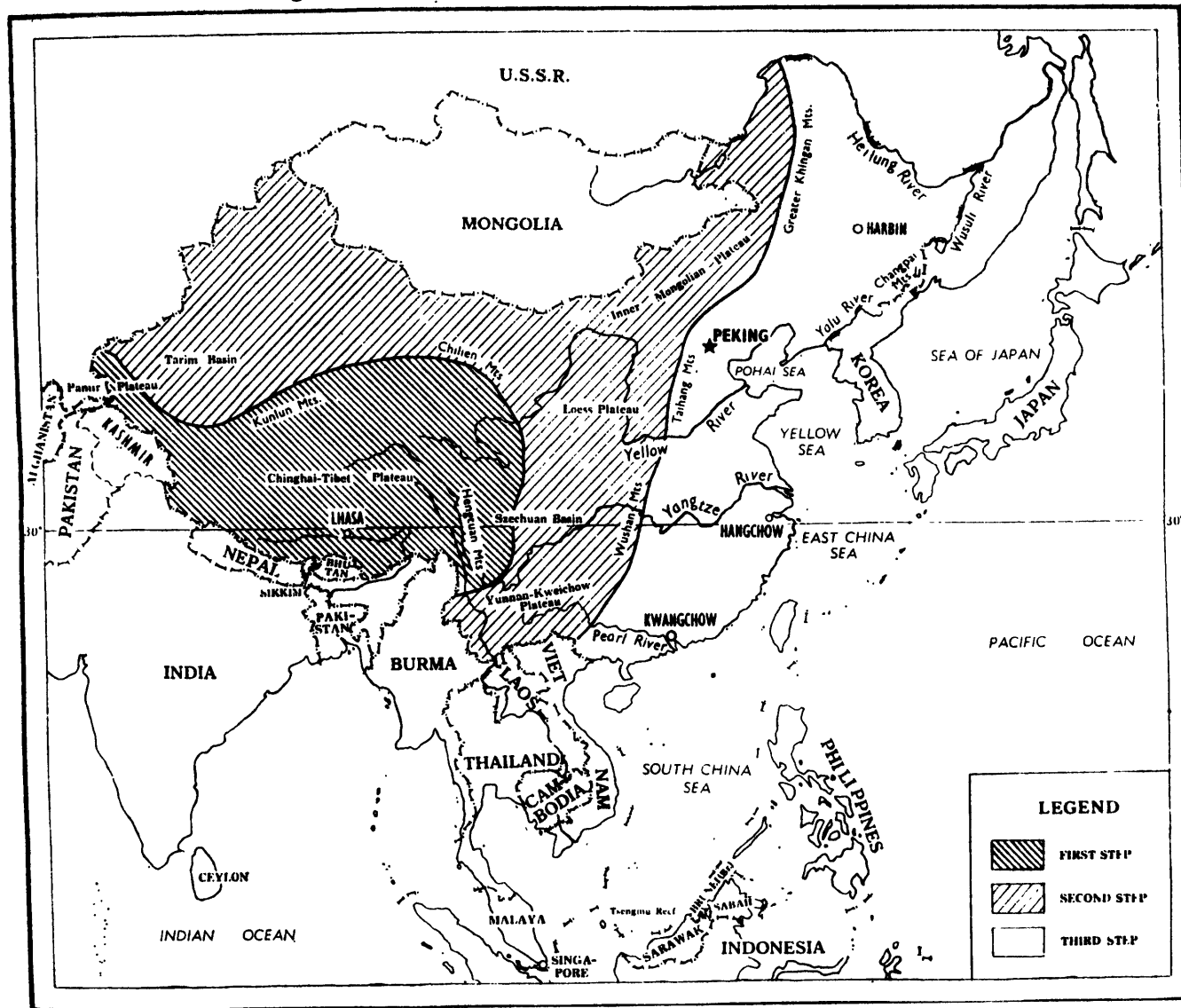
China is located in the eastern part of Asia, on the west coast of the Pacific Ocean. It borders on North Korea in the east; the Soviet Union in the northeast, northwest and part of west; Mongolia in the north; Afghanistan, Pakistan, India, Nepal, Sikkim, Bhutan in part of the west and the southwest; Burma, Laos and Viet Nam in the south. Across the sea to the east and southeast it faces Japan, the Philippines, Indonesia and others.

Besides wide territorial waters, China has vast land. The distance from east to west measures 5,000 kilometers, and from north to south over 5,500 kilometers. (or 3,100 miles and 3,400 miles respectively)

The topography varies from cloud-capped peaks to different shaped and sized basins, from wide, rolling plateaus to low, broad plains. There are great deserts and wilds in the northwest, while rivers, streams and lakes stud the plains on the middle and lower reaches of the Yangtze River. The basic topographic outline is a three-step west-east staircase. (See Figure 2-1) It begins with the Chinghai-Tibet Plateau 4,000 meters (13,100 ft.) above the sea. Crossing the Kunlun and Chilien ranges on the plateau's northern edge and the Hengtuan Mountains on its eastern edge, the land slopes away to highlands and basins from 2,000 to 1,000

Note: many parts in this chapter are simply extracts from various references.

Figure 2-1 CHINA'S TOPOGRAPHY¹



meters above the sea, then descends eastward to hilly regions and plains below 1,000 meters.

Most of the land lies in the north temperate zone with four distinct seasons. A combination of high temperatures and plentiful rain provides favourable conditions for farming. There are sub-tropical regions with luxuriant vegetation in all seasons. Some areas have long winters and short summers.

In the east, winter brings a dry, cold northwest wind from the hinterland toward the sea. Summer sees a hot, moist southeast wind from the sea. The northwest, being far from the seas, has comparatively little rain, its temperature varying greatly in one day. On the other hand, the temperature on the Chinghai-Tibet Plateau in the southwest is relatively low because of its high altitude. Both Lhasa in the west and Hangchow in the east are at latitude 30° N., but July in Lhasa is 15° C. while in Hangchow it is 28° C.

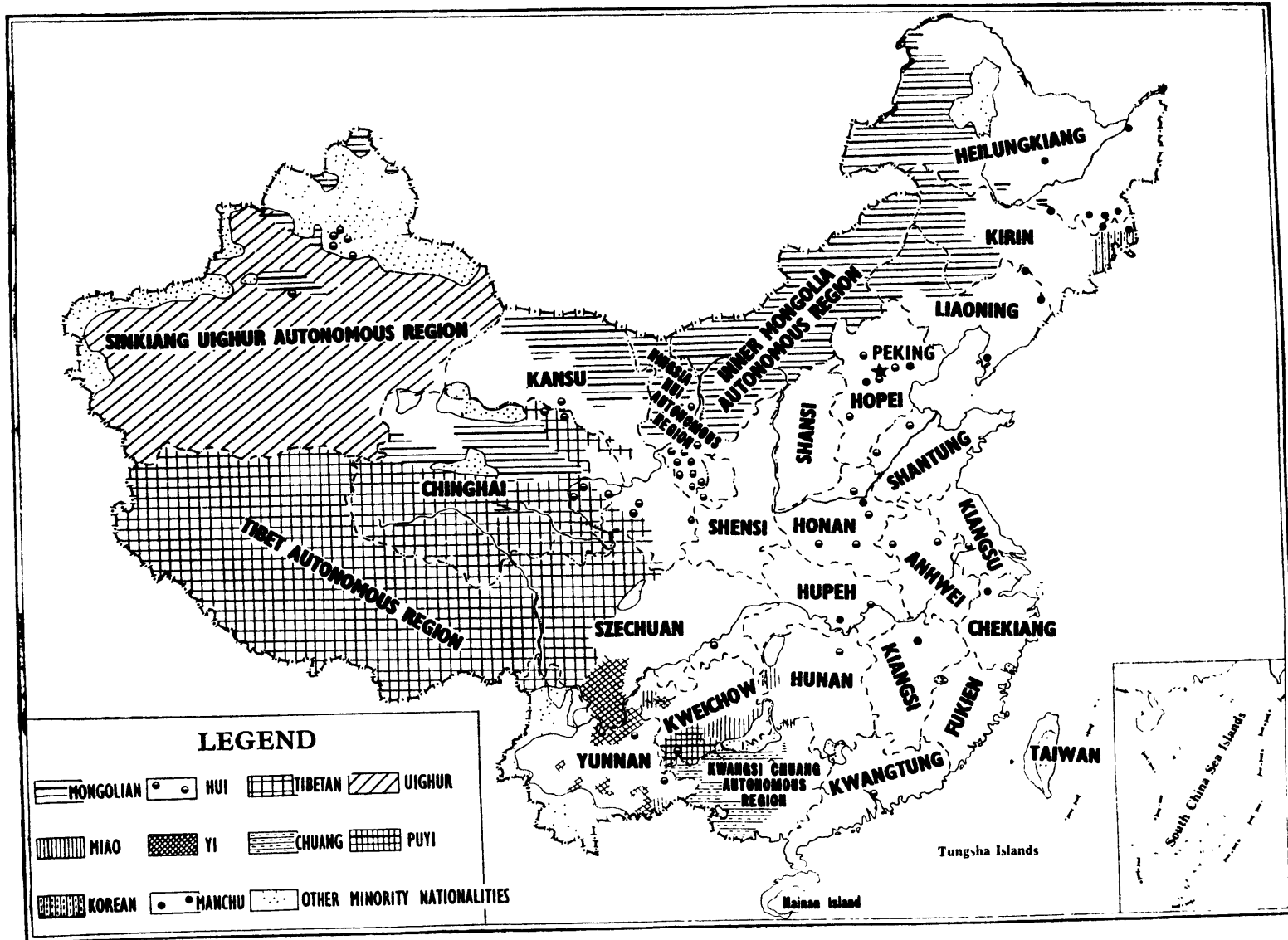
Influenced by the monsoons, the temperature in the north and south varies greatly in winter but little in summer. In January the difference in the average temperature in Harbin in the northeast and Kwangchow (Canton) in the south is as much as 35° C. In July the difference is only 5° C. and swimming is done in both the Sunghua and the Pearl Rivers.

The Yangtze, one of China's main rivers, originates on the Chinghai-Tibet Plateau and flows eastward across the length of China through one autonomous region, eight provinces and one municipality into the East China Sea.

The east and south coasts lie along the Pohai, Yellow, East China

Figure 2-2

DEMOGRAPHIC MAP OF CHINA'S MINORITY NATIONALITIES



and South China seas. The Pohai is China's inland sea, the others are connected with the Pacific Ocean. China has more than 5,000 offshore islands, the biggest being Taiwan and Hainan. Fine natural harbours are found along the 14,000-kilometer coastline from the mouth of the Yalu River on the China-North Korea border to the mouth of the Peilun River on the China-North Vietnam border.

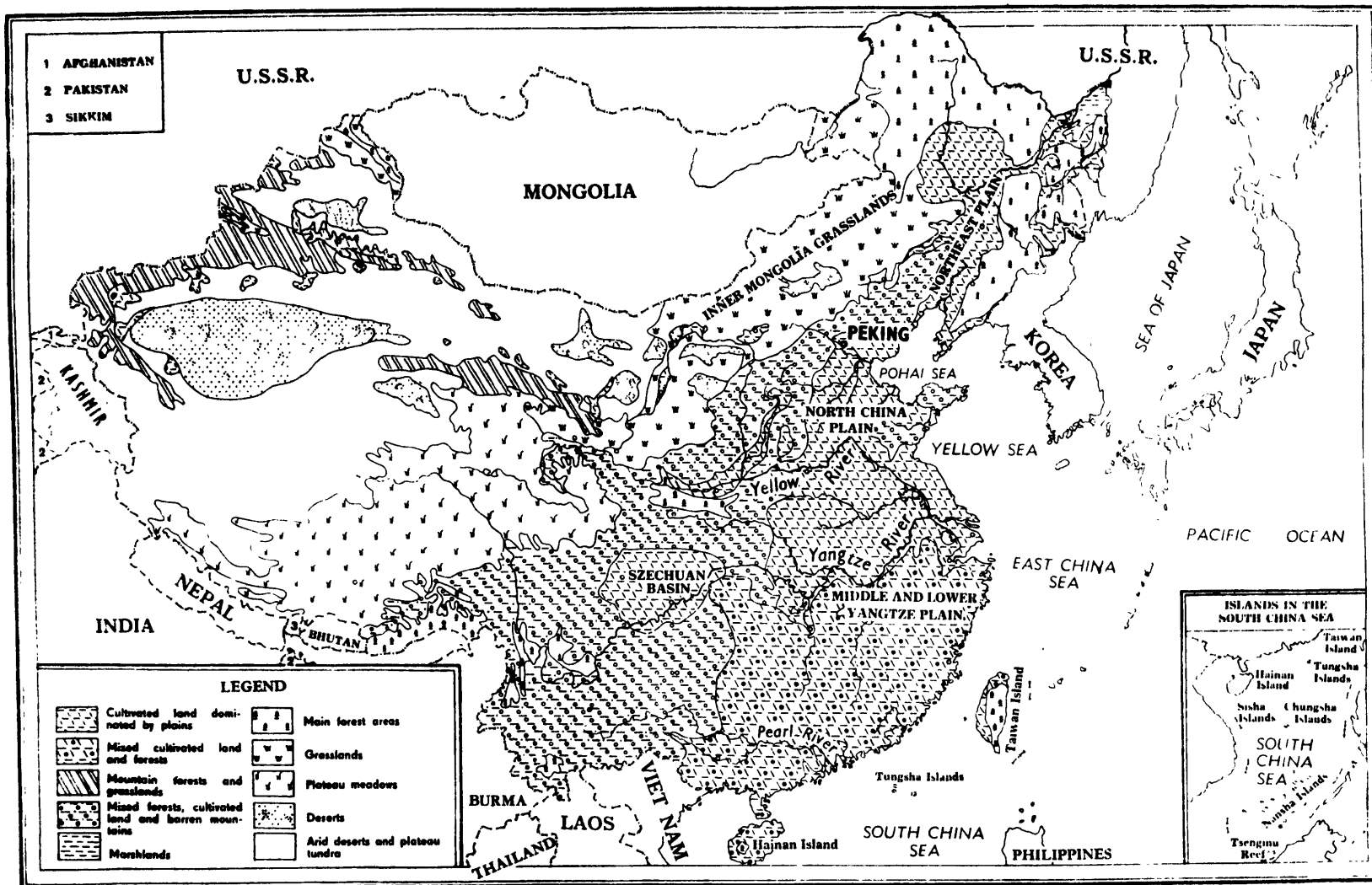
China is rich in mineral resources, especially in quality iron, manganese, tungsten, antimony, tin, copper, lead, zinc, mercury, molybdenum and aluminum, coal and petroleum.

With a land 9.6 million square kilometers (3.7 million sq. miles) in area, the People's Republic of China is a unified, multi-national country of 800 million (an estimated number) people. The Han nationality makes up 94 percent of the population. The rest consists of more than 50 fraternal nationalities, including the Chuang, Hui, Uighur, Yi, Tibetan, Miao, Manchu, Mongolian, Puyi, Korean, Tung, Yao, Pai, Kazakh, Tai, Li and others. The minority people are widely scattered (see Figure 2-2), the more concentrated communities being in the northwest and southwest.

China's vast territory, extending 49 degrees in latitude and over 61 degrees in longitude, abounds in natural resources of all kinds. Figure 2-3 shows China's land resources.

Figure 2-3

MAP OF CHINA'S LAND RESOURCES ¹



2.1.2 Harbors¹

Harbors are of two types, according to their location.

One kind is situated in the mouths of big rivers. The three biggest are the Tientsin Harbour on the lower reaches of the Haiho River west of Pohai Bay, the Shanghai Harbour at the mouth of the Yangtze River where the Whangpoo and Woosung rivers merge, and the Whampoa Harbour at Kwangchow in the Pearl River Delta where the Tungkiang, Peikiang and Sikiang rivers merge.

All three harbours are connected with the broad hinterland by rivers, railways, highways and airlines. The port of Shanghai serves the largest hinterland, which includes provinces of the Yangtze and Huai river valleys and some of the southeast coastal provinces. It also leads in the volume of flow of goods. Tientsin's port serves north China, Inner Mongolia and parts of the northwest. It is a junction for exchange of goods between north and south and an important foreign trade port. Whampoa Harbour, serving all of south China, is a junction for water and land transport and the biggest foreign trade port in that region.

The second type is the natural harbours on the bays, such as at Dalien on the Liaotung Peninsula, Tsingtao on the Shantung Peninsula, Chankiang on the Leichow Peninsula. Their waters are wide and deep and sheltered by islands. Rail connections link them to the hinterland.

2.1.3 Rivers and Canals

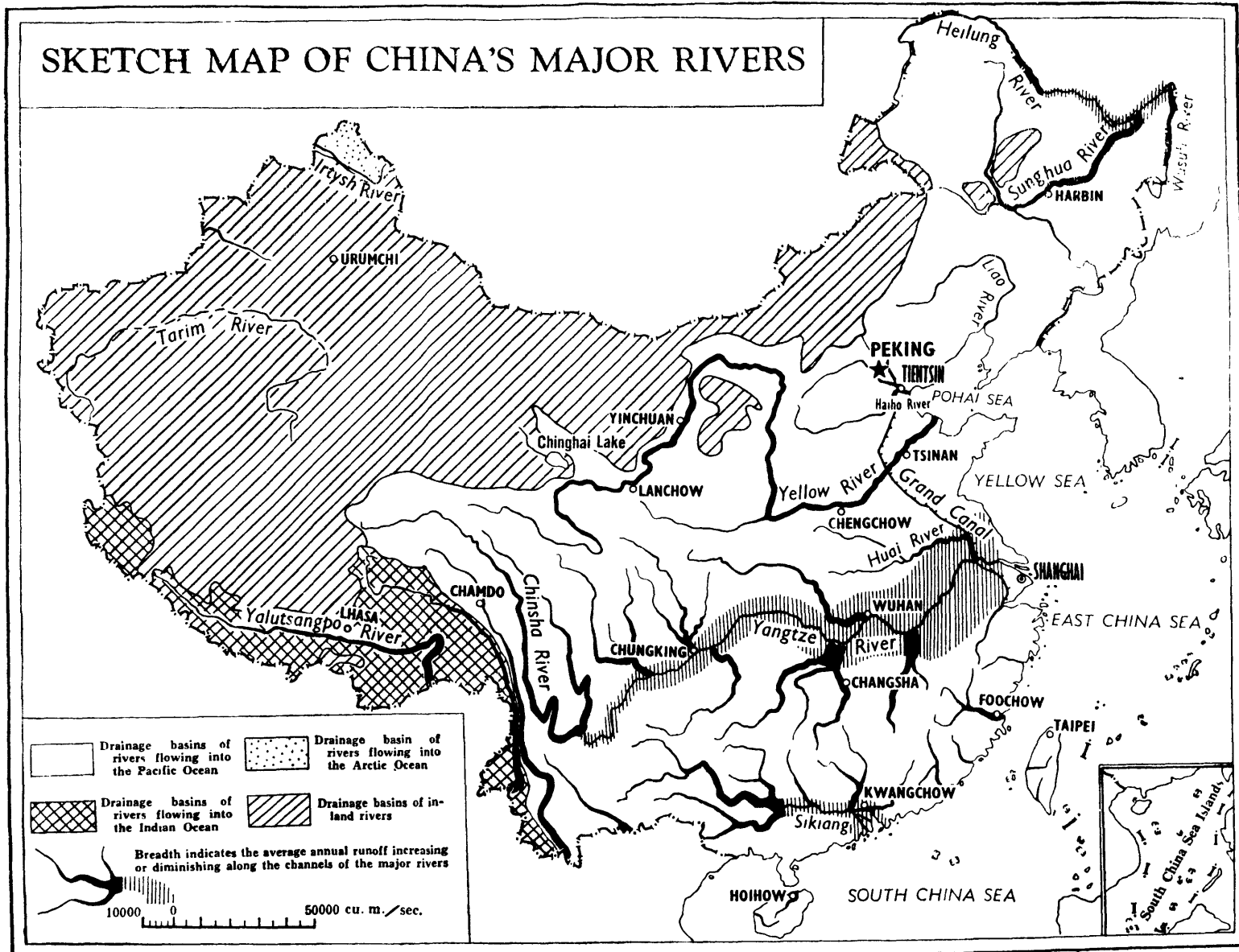
China has a particularly large number of rivers. (See Figure 2-4) More than 5,000 of them have drainage basins of over 100 square kilometers. The majority of these have outlets to the sea. All the major rivers - the Yangtze, the Yellow, the Heilung, the Pearl and the Haiho - flow from west to east and empty into the Pacific. The Yalutsangpo and Nukiang rivers in southwest China stream south into the Indian Ocean. The Irtysh River which flows through Sinkiang eventually finds its way to the Arctic Ocean.

The rivers in the northern part of China - that is, north of the Huai River and the Chinling Mountains - have a large flow in the summer which dwindles to something quite small in winter. They freeze in the winter, some for longer than others, and are therefore not navigable the year round. Most of these rivers carry large amount of silt, so that often the lower course fills up to such an extent that the channels rise above the level of the surrounding land. Unless contained by strong dykes, these rivers often flood over and shift their course.

Rivers south of the Huai-Chinling divide carry a heavy volume of water which does not vary much with the seasons. These never freeze, a factor which makes them a valuable transport asset.

The biggest river in the Hengtuan Mountains in southwest China such as the Nukiang and the Lantsang rise in the Chinghai-Tibet highlands and rush down between towering mountains and narrow gorges. Because of this,

Figure 2-4



though they have an enormous flow and are ice-free, they are not navigable.

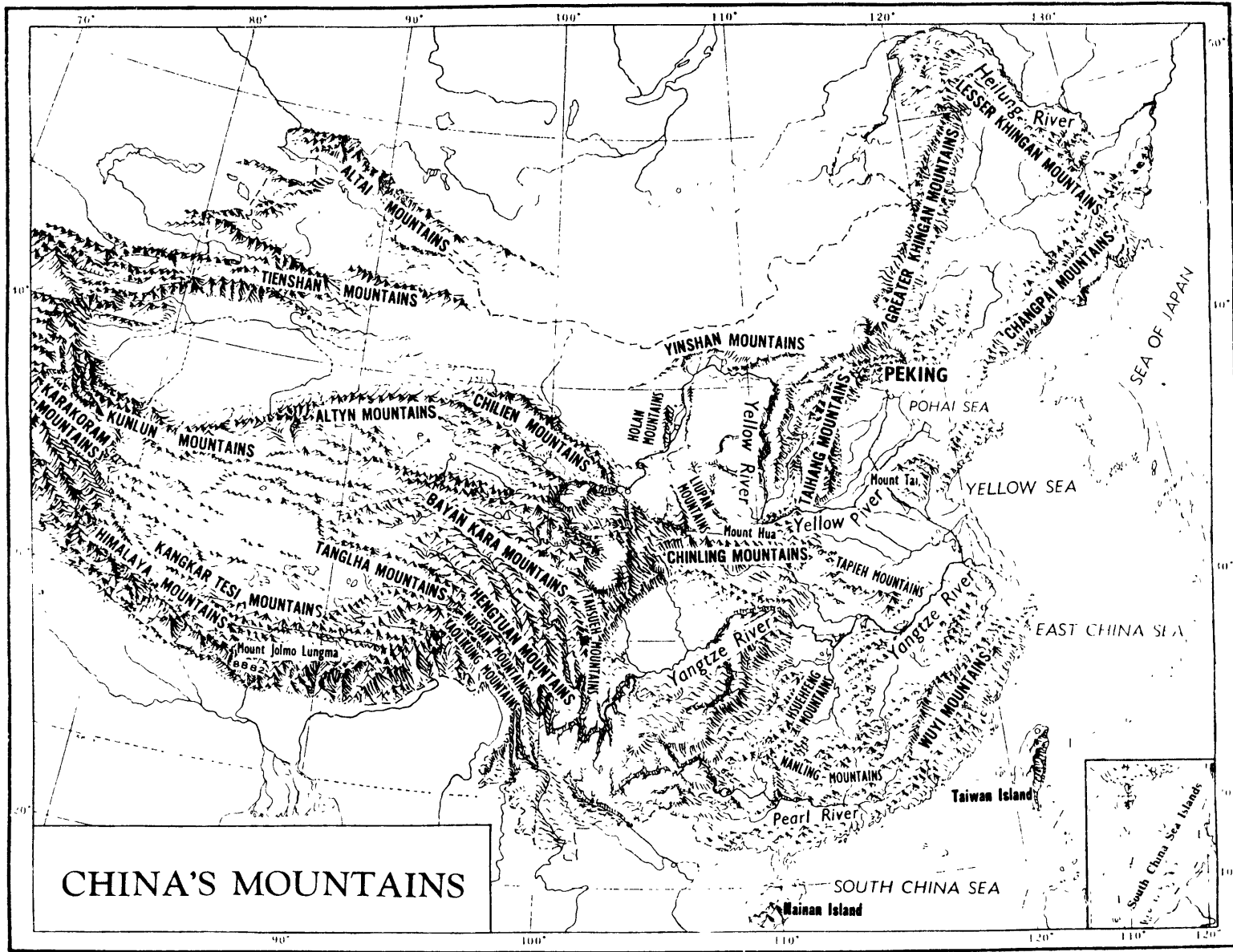
Inland rivers, which are located mainly in the arid northwest, drain one-third of the country's total area. Among them are the Tarim, the Tsaidam and the Shuleh. They are fed by glaciers and snow, and these determine the volume and length of their flow. They flow intermittently and frequently dry up.

In addition to natural rivers, China has many canals. The Grand Canal dug in ancient times stretches for 1,700 kilometers from Peking southward to Hangchow. Other outstanding examples are the spiderweb of canals in the Yangtze Delta and the canals which have been built to provide an outlet for the Haiho River.

2.1.4 Mountains

China's mountain ranges crisscross the country in a complex pattern. (see Figure 2-5) They can be divided into three groups: the east-west ranges, the northeast-southwest ranges and the north-south ranges.

Figure 2-5



2.2 Population Distribution

China has a population of about 800 millions (1971 estimates). It is the world's largest and comprising roughly one-quarter of world population. Approximately 80% of them live in rural area, with the remaining 20% live in the cities. Estimated annual growth rate is from 2 to 2.5 percent. Hence population of China is expected to reach 1 billion by 1980s.

However, China's population is very unevenly distributed. (See Figure 2-6) Most of its inhabitants live in the eastern one-third of the country.

The Chinese government is determined to develop the western part of the country. As a result, immigration to the west is encouraged. However, because of relief or weather problems, transportation to the Northwest and the Southwest has always been very difficult. The development of air transportation hopefully is going to solve part of the problem.

Figure 2-6 Population Distribution

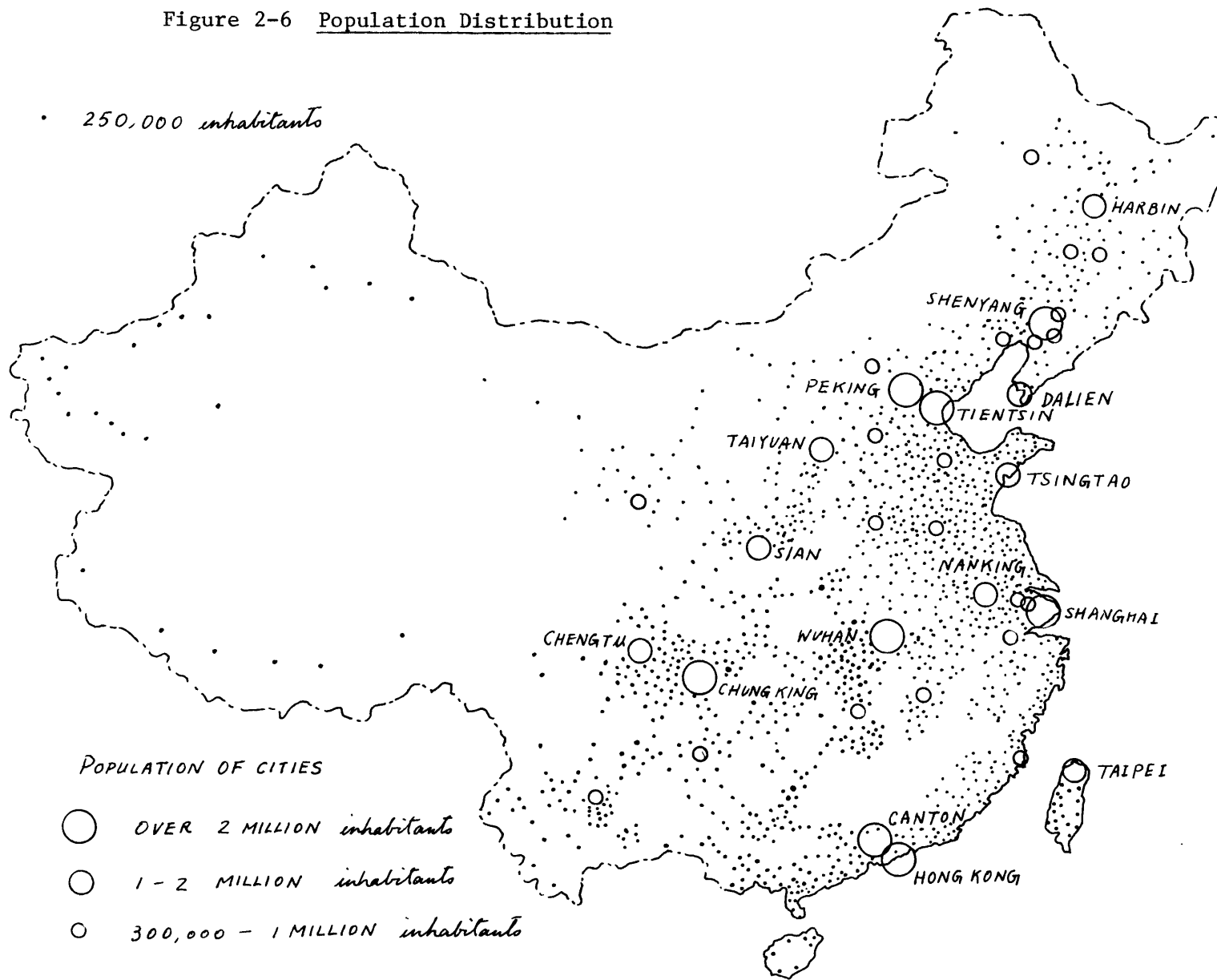


TABLE 2-1

POPULATIONS IN MAJOR CITIES (1960)

<u>Name of City</u>	<u>Population (000)</u>	<u>Name of City</u>	<u>Population (000)</u>
Anshan	805	Nanking	1,419
Canton	1,840	Nanning	264
Changchun	975	Peking	4,010 (around 8 million now)
Changsha	703	Shanghai	6,900 (around 11 million now)
Chengchow	766	Shenyang	2,411
Chengtu	1,107	Shihkiachuang	598
Chungking	2,121	Sian	1,310
Foochow	616	Soochow	633
Fushun	985	Suchow	676
Hangchow	784	Taiyuan	1,020
Harbin	1,552	Tientsin	3,220
Kirin	568	Tsinan	862
Kunming	880	Tsingtao	1,121
Kweiyang	504	Tsitsihar	668
Lanchow	699	Wuhan	2,146
Lushin-Dalien	1,508	Tzepo	806
Nanchang	508	Wusih	613

Sources: References 14, 50, 68.

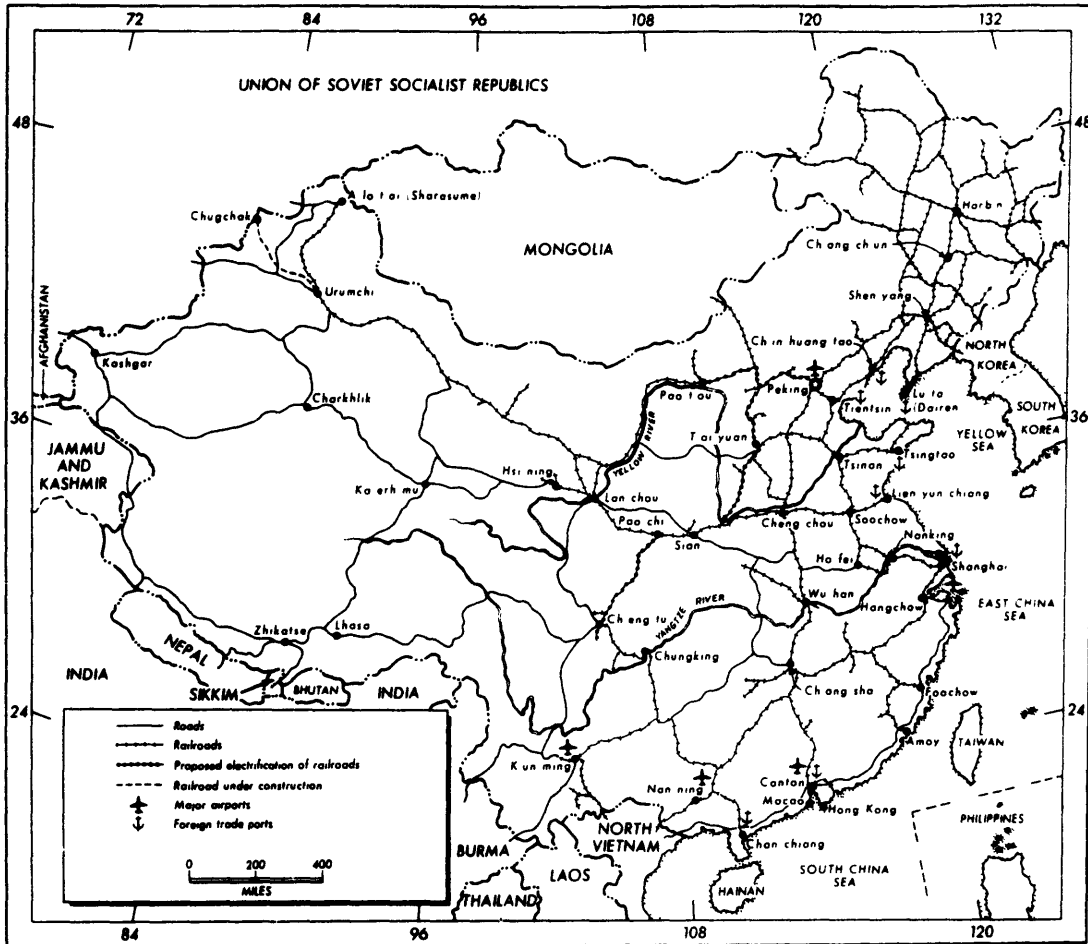
2.3 Railways

The railways play an important role in the transport of raw materials in China. Before the Communists takeover, railways were already well established in the eastern part of the country.

However, in 1949, out of 23,443 km. of tracks only 1,200 were serviceable.³ From 1950 to 1955, 8,000 km. of tracks were laid down or repaired; in 1957, a very great effort was made and 12,000 km. of tracks were laid down or repaired. Today, with the exception of Tibet, all the provinces are connected by rail. There are three main systems:

- A. The north-eastern one: the densest network, with thirty main lines and sixty secondary lines, totalling 9,201 km. in length.
- B. The northern one: twelve main lines and sixty secondary lines, totalling 14,660 km. in length.
- C. The southern one: the smallest, with twenty-two main lines and twenty-two secondary lines, totalling 6,043 km. in length.

From Figure 2-7, we can see that most of China's railways still concentrate in the eastern part of the country. However, this map from reference 30 is outdated. The Kunming-Chengtou was completed in 1970. The Changsha-Kweiyang line is also reportedly completed recently.



Note: The heavily interlaced road network in the eastern half of the country is not shown. This network for the most part parallels and interconnects with the existing railroad network.

Figure 2-7. Principal Transportation Routes (1969)

2.4 Roads³

In 1949, there was no national road system. Roads where existent, were seldom passable all the year round and were often not negotiable by modern vehicles due to their narrowness and the very large number of hog-backed bridges.

The length of the road system has increased eightfold since the Communist takeover, and a system is gradually being constructed that will cover the whole country. Only two provinces are still very far behind, Tibet and Ningshia Province.

It is in border areas that the main effort has been made, both for strategic reasons and for the purpose of establishing overland communications with neighboring countries. The road that will link Katmanku to China will make it possible to increase trade between the two countries, and it will also enable Nepal to resist some of the pressures exerted on here by the Indian government.

For the distribution of the road network, refer to Figure 2-7.

2.5 Tourism⁴⁵

2.5.1 Basic Attitudes

The Chinese government has a philosophical attitude toward visitors. They make it abundantly clear that at this juncture at least they are not interested in tourism as such. That is, the country is not open to visitors whose primary purpose is sightseeing.

There are many places that would be of interest to tourists, but the Chinese have an aversion to becoming a mecca for the curious, especially by those who regard it as an exotic or latest "in" place to be seen on a whirlwind tour.

Among the group that are welcome, in limited numbers, are technical or professional groups that have knowledge that's of interest to the Chinese, and cultural exchange groups - musicians, non-professional sports teams, and students and teachers with a recognized and serious purpose. Another exception are trade missions to the Canton fairs. Generally, such groups are limited to about 25 persons.

2.5.2 Tourist Infrastructure

Even if China wanted to develop tourism on a major scale, there are major limitations imposed on such expansion by the state of the tourist infrastructure. There is no reason to assume, however, that the attitude toward tourism per se is intended to mask the inability to handle a significant increase in the number of visitors, regardless of their purpose.

Indeed, expansion of the infrastructure is going toward on a planned or step-by-step basis in major cities like Canton, Peking and Shanghai.

The primary needs currently are more hotels, vehicles, interpreters, and guides fluent in one or more of the predominant foreign languages. The training of personnel is both time consuming and expensive. Over and beyond acquiring knowledge of the country and its traditions, an interpreter must spend two years usually just to master English, for example. Less intensive study obviously is required of hotel, restaurant, and other service personnel.

Although a limited amount of hotel space has been and is currently being added to the inventory, housing clearly has priority. In any case, the day when visitors can expect accommodations equal to the luxury standards of a Hilton or Intercontinental is not just around the corner. Ostentation is not in good taste.

Outside the biggest cities, and with the exception of the beautiful "resort" at Hangchow, there is little resembling a tourist infrastructure. Even if there were hotels in the hinterland, they would be difficult to reach. Turning the individual tourist loose to explore the countryside would be sheer folly.

The few paved roads are something of an obstacle course because they also serve as major arteries for pedestrians, bicycles, ox carts, and similar conveyances. Road markings are few and far between, and they are written only in Chinese. Service stations would be difficult to find.

Finally, there are no car rental agencies or chauffer-driven cars for hire. Except for the limited number of foreign embassy and foreign trade

mission officials, ownership of automobiles is not permitted. In short, the language barrier and lack of a tourist infrastructure are a real impediment to individual and group travel beyond the immediate vicinity of a few major cities.

2.5.3 Domestic Travel

Domestic travel of any distance at home and to points abroad is comprised mainly of government and party officials and various technical personnel. Chief limiting factors on travel, especially overseas or abroad, by the average citizen include the modest level of income and very short vacations.

CHAPTER 3

HISTORICAL DEVELOPMENT BEFORE 1949

3.1 China Finds Wings (1919-1928)

First development in China's civil aviation history apparently took place in the year 1919. As the World War I came to its end, there were plentiful surplus airplanes available from the Allies, especially from Great Britain. In 1919, the Chinese Central Government desired to build up its first civil aviation network and contracted to purchase 151 planes, all commercial or training types from Vickers, with the condition that all the aircraft would be used only for commercial and training purposes.⁴⁷

Unfortunately, the warlords would not abide by such rules. As wars broke out between the militarists in 1920, the planes were taken away by warlords like Marshal Chang Tso-lin (張作霖) and General Tsao Kun (曹錕) for military purposes. As a result, many of the planes were destroyed during the fightings, and civil aviation never really got a chance to build up its roots in that period.

This is not surprising as the country of China was in such a state of chaos. The Central Government was almost powerless while the warlords had absolute power in their own provinces. However, things started to look brighter in the year 1926.

On July 9, 1926, under the leadership of Generalissimo Chiang Kai-shek, the Nationalist forces, officered by cadet of the Whampoa Military Academy (黃埔軍校), set out from Canton and started the Northern Expedition (北伐).⁴ In two years, the northern warlords were ousted and the country was finally unified. A national government was established in Nanking in 1928, under the direction of the Kuomintang.

3.2 Developments of Commercial Airlines under the Nationalist Regime
(1928-1949)

China's next venture in commercial aviation had better success and regular commercial air transportation began in 1929. Pioneer in the field of commercial aviation in China was the China National Aviation Corporation, a Sino-American joint enterprise first inaugurated in 1929 and reorganized in 1930.¹¹ When the CNAC was established, a contract was concluded with Aviation Exploration Inc., a subsidiary of Curtiss-Wright Company (at the time the biggest aircraft company in the United States), for the joint operation of mail and passenger air service in China. The Company underwent a thorough reorganization in 1930, when a new contract was signed between the Ministry of Communications and China Airways, Federal Inc., U.S.A.⁴ This contract, providing for the joint establishment of the China National Aviation Corporation, became effective on July 17, 1930, following ratification by the National Government. The government acquired a 55% interest in the new company, while China Airways, Federal, Inc., in the United States, acquired the remaining 45%. In 1933, Pan American Airways bought the 45% interest held by American shareholders, but their shares were being cut to 20% after World War II.

Earlier in 1926, Lufthansa had carried out a trial flight to China and had subsequently established the Eurasia Aviation Corporation in February 1931, following the signing of a contract between the Ministry of Communications and the German Lufthansa Company. However, a few days after the Chinese Government's severance of relations with Germany, the corporation became, on August 1, 1941, entirely Chinese-owned and operated. The German interests

were withdrawn from Eurasia and all the German staff members, including air and ground crew and advisors, were sent away. On March 1, 1943, the Eurasia Aviation Corporation was completely reorganized and the Central Air Transport Corporation came into existence. The company developed an extensive network of services within China and to nearby countries and remained as the second largest airline until 1949.

A third scheduled airline was the Sino-Soviet Aviation Company set up in 1939 by the governments of China and Russia to operate between the two countries. Better known as Hamiata in China, this company operated for a short time between Chungking and Moscow but after the war it concentrated on the 880-mile route between Hami in Sinkiang Province and Alma Ata, capital of Kazakh Republic in southeast Russia, where connections were established with Aeroflot.

A fourth major Chinese airline came into existence after World War II when the Chinese National Relief and Rehabilitation Administration Air Transport (CNRRA Air Transport, or in short CAT) was organized by an American, Gen. Claire L. Chennault, of "Flying Tigers" fame, war time commander of the 14th Air Force and the AVG (American Volunteer Group). Later on, it was renamed Civil Air Transport, Inc.

From the beginning of commercial aviation in 1929 to the time the Sino-Japanese War broke out, China had gradually built up a total of 13,826 kilometers of air routes with 30 airplanes of different sizes and makes on the lines. Although during the war, less than 1,000 kilometers remained in operation, the Chinese people as a whole had become much more air-conscious than before the war and the demand for airplane seats was increasing.

After the second World War, commercial aviation enjoyed a period of rapid

recovery and expansion. By 1946, CNAC was operating 33 C-47s, 30 C-46s and 4 DC-4s with 1,350 employees while CATC had 13 C-47s and 11 C-46s. However, this boom was short-lived. As the Communists swept across China, services and facilities that had taken years to establish were hastily withdrawn wherever possible. Operating bases were constantly on the move and some flight equipment was confiscated or destroyed by enemy fire. Finally, as complete conquest became imminent, what was left of the then modern fleets of CNAC and CAT were flown to safety in Hong Kong. Included were Convairs (virtually brand new), DC-4s, DC-3s and C-46s, about 70 aircraft in all. As it turned out, it took another 3 years time for these aircraft to finally return to the Nationalist's hands.

3.2.1 THE CHINA NATIONAL AVIATION CORPORATION

A. Formation of the Airline

In April 1929, Sun Fo, then Minister of Railways, signed a contract with Aviation Exploration, Inc., A Curtiss-Wright subsidiary, in which scheduled flights would be provided under the name China National Aviation Corporation, with Sun Fo (孫科), being the first President. The first regular service was started over the Shanghai-Hankow route using amphibians (Loening Keystones) on the Yangtse River, a 600-mile (873 km.) trip that took two days compared to two weeks by steamers.¹¹ The government collected all the revenues and paid the company for each scheduled mile flown.

However, the Ministry of Communications objected to this, and a new arrangement was made the next year between this Ministry and the American interests. CNAC was re-established as a joint enterprise. The authorized capitalization of the reorganized CNAC was \$10,000,000 Chinese national currency, of which the Ministry of communications was entitled to subscribe 55% while the remaining 45% went to American owners. (In 1933, Pan American Airways bought all the 45% held by American shareholders, but were being reduced to 20% in 1947 with the government owning the other 80%.

The management of this Sino-American commercial aviation company was under the direction of a board of seven directors, four appointed by the Ministry of Communications and three by the American shareholders. From among the members of the board of directors a president and two vice-presidents were elected. Appointment of the president and one of the vice-presidents came from the Ministry of Communications while that for the second vice-president came from the American interests, with the board of directors electing the persons so nominated. The president was to act concurrently as the

managing director of the corporation and chairman of the board.

B. Fleet Structure

Between 1929 and 1933 the CNAC bought eight amphibians (Loening Keystones) which had a capacity of eight passengers.² This type of machine was particularly suited to operations in the Yangtze River region. Subsequently, CNAC also acquired some four-passenger Stinsons, two-engined Sikorsky S-38, Douglas Dolphin amphibians, three-engined Fords and Commodore amphibians.³ As the company got bigger and bigger, new planes like the DC-2s, DC-3s, C-47s and DC-4s were being purchased. At the end of 1947, CNAC operated 33 C-47s, 30 C-46s, and DC-4s (with two more DC-4s and five Convair-240s on order and were due for delivery in China).⁴⁷

C. History of Operations (1929-1945)

The first commercial flight was inaugurated on October 21, 1929 between Shanghai and Hankow with a Loening Keystones amphibian. Subsequent to the trial flight, six weekly services were being offered on the route initially.³ Two years later, in 1931, another route (Shanghai-Hankow-Shanghai-Ichang-Chungking) was inaugurated. It took less than 48 hours to fly from Shanghai to Chungking. On June 1, 1933, Chengtu was added to the route. This East-West route became a main life-blood to the Chinese economy.

On January 10, 1933, a north-south route was opened connecting Shanghai and Peking via Nanking, Haichow, Tsingtao and Tientsin. It only took seven and a half hours to finish the 1,200 km. journey, thus producing another

break-through in the civil aviation history of China.

Another great moment came when the Shanghai-Canton service was inaugurated on October 24, 1933 and the service was extended to Hong Kong three years later. From Hong Kong, people could go on connecting flights to Europe and Australia by Imperial Airways or to the United States by Pan American Airways.

Hence, by 1933, CNAC services had essentially covered all the major cities of China with the capability of connecting flights to the outside world.

From 1935 on, volume of traffic kept expanding and more cities were being added to the existing routes, including those inland cities like Kunming and Changsha. However, the expansion of CNAC was forced to a setback with the outbreak of the Sino-Japanese War (or the War of Resistance as called by the Chinese people) in 1937. As the Japanese troops occupied more and more Chinese land, services linking the coastal cities were disconnected.

During the war, Chungking was established as the central terminus and major cities in the Southwest, Southeast and Northwest remained accessible by air. Besides the regular airlines, planes might be chartered for places like Nanshiung, Liuchow, Kweiyang, Chaotung, Hanchung, Sian, Liangchow, Tienshui, Sining and Ningsia, which were not port of calls of the regular routings.

In December 1937, Chungking was linked to Hong Kong. This service became the new life-blood of Chungking for supplies. Unfortunately on December 1941, Hong Kong fell into the hands of the Japanese forces and the service was discontinued.

Meanwhile, CNAC kept on rendering unsurpassed services in passenger as well as freight and mail transportation despite the tremendous losses they had sustained as a result of the hostilities and despite repeated Japanese

attacks on civil aircraft in flight. In 1939, Chungking was first linked to Hanoi and from Hanoi linked to Paris and London via Air France. In the same year, CNAC also started services to Rangoon. However, both services had to be suspended in 1940 and 1942 respectively as the Japanese advance continued.

In January 1941, the world famous flight over the "Hump" started. CNAC had to operate the "highest" route in the world, linking Chungking to Calcutta via Kunming, Lashio and Chittagong. In the Burma campaign of 1942, CNAC again showed its tremendous contributions by establishing a station at Myitkyina immediately following the occupation of Lashio by the Japanese. Civil aircraft were commissioned to deliver food supplies by parachute and specially packed bales to the Chinese Expeditionary Force which remained fighting in Burma.

One phenomenon that is worth special mention is the low accident rate in Chinese civil aviation during that period. Since commercial aviation became a regular means of transportation in China, the total number of accidents and mishaps, whether involving casualties or damage or destruction of aircraft, had been much lower than in any other country in the world where commercial airlines existed. Considering the fact that there was no radio homing beacon to guide the airships in flight, that planes took off or landed in thick fog (particularly in Chungking) and at night on fields without proper or adequate lighting, flew over enemy-occupied areas, and flew in foul weather, this record is phenomenal, particularly on trips covering enemy-held territory, some of the pilots preferred to take off or navigate in weather conditions which in other countries would ground the airplanes.

D. The Civil War Period (1945-49)

After World War II, the Civil War had in no time broken out in the northern part of China. However, civil aviation was on its way to quick recovery. CNAC remained the biggest airline in China. Its main base of operations was located at Lunghwa Airport, Shanghai. Equipment acquired for its wartime workshops in Calcutta (CNAC had built up a center at Calcutta during the World War Period because it was a lot easier to get gasoline supplies there) were being set up there, which included machine shop, engine rebuilding shop and facilities for complete overhaul.

For personnel, in 1947, CNAC had about 150 Americans and 1,200 Chinese. Eighty of the Americans were pilots. There were 10 Chinese first pilots and about 35 Chinese co-pilots. Most of the maintenance personnel were Chinese, with Americans in charge of the shops. Weather and communications were handled almost exclusively by Chinese technicians.

Some efforts were made at providing passenger comforts, but that required a long period of patient training of personnel. Tendency of the flight operators at that time was to shove the passengers on board, slam the door, and take off. Disembarking at any station was "risky" business, unless the passenger was fortunate enough to sit against the crew cabin bulkhead. Once the door was opened, thundering herd of baggage coolies would swarm in trampling one and all of the passengers.

But progress was slowly being made: Box lunches were provided for long trips cutting through meal hours, transportation was available from airport to town, a few planes had been converted from bucket seats to plush jobs, all of the DC-4s were freshly slicked up, and six hostesses were trained to fly the

Capital Special and Skymaster runs. At that time, keeping plush jobs plush was a major headache for hostesses and operators. The least bit of rough flying would set most inexperienced Chinese to heaving. In addition, as a habit, mothers were likely to hold their small children over the aisle so they could relieve themselves. Only a fast moving, fast talking hostess could succeed in persuading passengers to use the lavatory instead. This unfortunately was a problem of education of passengers.

In addition to maintaining its own passenger-freight-mail service, CNAC was also required to fly special trips on order of the Executive Yuan. Moreover, the four government banks also had the authority to order charter trips from CNAC.

E. Some Operational Data of CNAC

Table 3-1

TRAFFIC STATISTICS OF CNAC FROM 1929 TO 1947

<u>Year</u>	<u>Kilometers Flown</u>	<u>Passengers Carried</u>	<u>Passenger Kilometers Flown</u>	<u>Weight in Kilograms of Mail Carried</u>	<u>Weight in Kilograms of Freight Carried</u>
1929	93,000	220	107,000	-	-
1930	531,000	1,979	1,028,000	-	-
1931	716,000	1,989	977,000	-	-
1932	694,000	2,741	1,248,000	-	-
1933	1,075,000	2,644	1,484,000	-	-
1934	1,435,000	3,545	2,501,000	-	-
1935	1,906,000	9,147	5,757,000	-	-
1936	2,483,000	15,748	11,033,000	-	-
1937	2,061,093	12,758	9,400,510	85,470	41,732
1938	1,307,918	13,701	8,625,886	124,463	76,007

Table 3-1 (Con't)

<u>Year</u>	<u>Km. Flown</u>	<u>Pax Carried</u>	<u>Pax Km. Flown</u>	<u>Wt.Kg.Mail</u>	<u>Wt. Kg.Freight</u>
1939	1,179,295	16,546	8,868,908	102,093	117,375
1940	1,616,794	16,432	11,340,724	82,756	496,499
1941	2,127,377	21,292	15,308,269	90,271	3,559,691
1942	3,115,302	26,867	23,514,705	55,017	4,298,309
1943	9,417,226	33,224	29,815,889	61,182	19,611,124
1944	-	39,363	-	-	-
1945	-	59,177	-	-	-
1946	-	202,510	-	-	-
1947	-	173,317	-	-	-

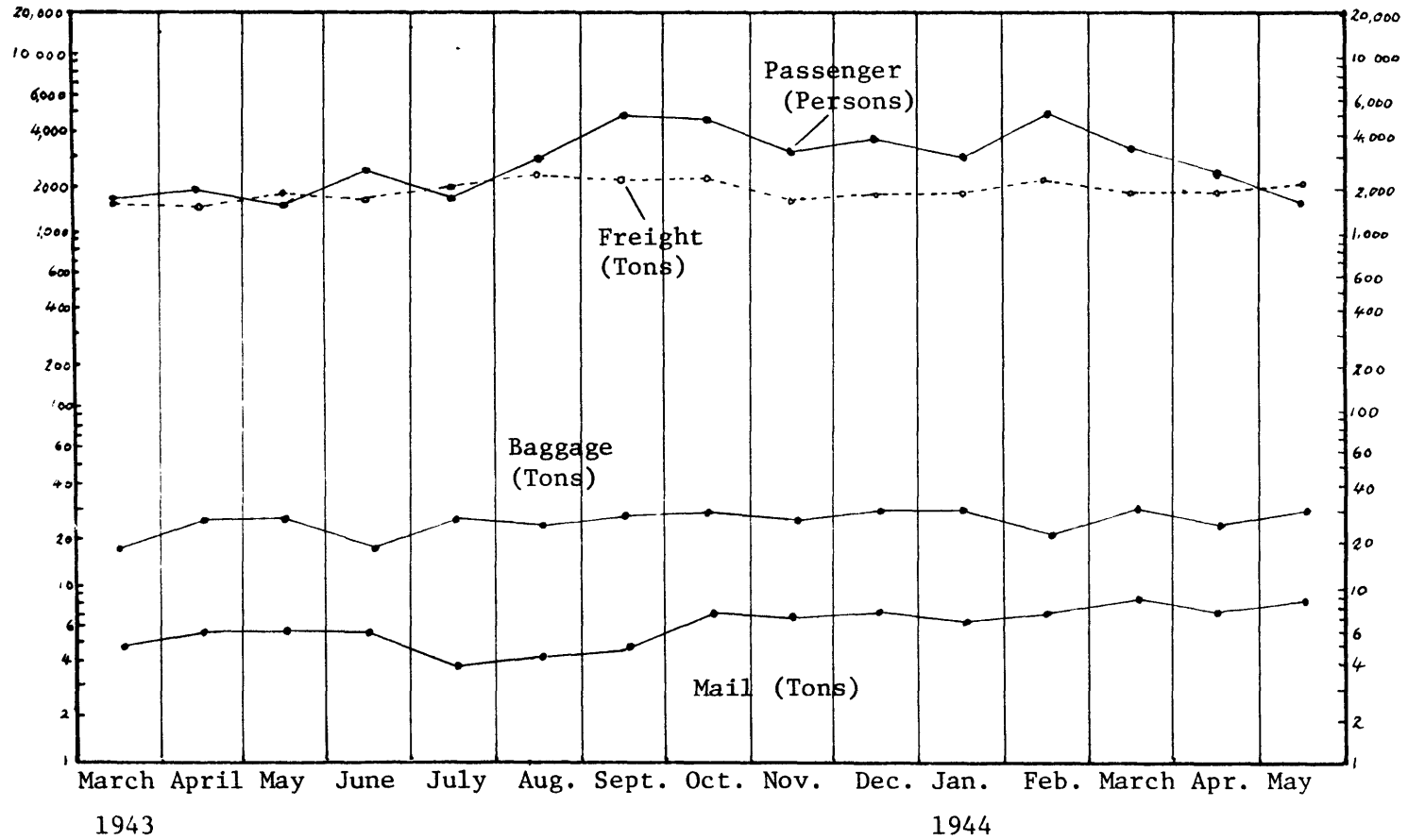
Source: Ministry of Communications (China Handbook 1937-44) - Reference 4.

ITA Study: From 1929 to 1936, Km. flown & pax-km. flown figures (Reference 3) are approximate to the nearest thousand.

TABLE 3-2

PASSENGERS, FREIGHT AND MAIL CARRIED BY C.N.A.C.

PLANES FROM MARCH, 1943 TO MAY, 1944



Source: China Handbook 1937-44 - Ref. 4.

Table 3-3

C.N.A.C. ROUTES IN OPERATION IN AUGUST 1944

<u>Route</u>	<u>Distance (Kilometers)</u>
Chungking - Chengtu	290
Chungking - Kunming	650
Chungking - Kweilin	610
Chungking - Lanchow	780
Chungking - Paoki	531
Paoki - Lanchow	348
Calcutta - Dinjan	886
Dinjan - Kunming	805
Dinjan - Suifu	<u>927</u>
TOTAL	5,827

Source: (China National Aviation Corporation) 1937-44 China Handbook

Reference 4.

Table 3-4

FREIGHT AND PASSENGERS CARRIED, AND TRIPS FLOWN
BY LEND-LEASE TRANSPORTS OVER THE "HUMP"
MARCH, 1943 TO APRIL, 1944

	<u>Outward Trips</u>	<u>Inward Trips</u>	<u>Outward Empty Load Trips</u>	<u>Inward Tonnage</u>	<u>Outward Tonnage</u>	<u>No. of Passengers</u>
1943						
March	332	338	-	707	712	571
April	335	335	-	636	628	603
May	374	371	1	734	725	311
June	361	367	3	735	699	1,334
July	497	498	137	999	794	636
August	549	553	129	1,161	944	1,230
September	562	560	144	1,125	819	3,075
October	487	486	40	884	909	2,741
November	312	317	7	633	647	1,680
December	381	370	2	740	713	2,164
1944						
January	422	420	50	815	399	1,590
February	640	650	28	1,235	634	3,570
March	497	498	7	965	484	1,301
April	545	543	3	1,004	549	730
TOTAL	6,294	6,315	551	12,433	9,757	21,572

Source: (China National Aviation Corp.) China Handbook 1937-44 - Ref. 4

Table 3-5

CNAC SCHEDULE OF SERVICES IN 1947

(In October 1947, CNAC operated 33 C-47s, 30 C-46s, and 4 DC-4s. With these it flew the following routes all round-trip schedules.)

Shanghai-Nanking-Hankow-Chungking	1,485 mi.	14 weekly
Shanghai-Tsingtao-Peiping (now Peking)	1,080 mi.	3 weekly
Shanghai-Nanking-Hsuchow-Tsingtao-Tientsin-Peiping	1,385 mi.	1 weekly
Shanghai-Nanking-Tsingtao-Tsinan-Tientsin-Peiping	1,420 mi.	2 weekly
Shanghai-Hong Kong with mixed stops at Amoy, Foochow and Canton	1,245 mi.	4 weekly
Shanghai-Nanking-Hankow-Kweilin-Canton-Hong Kong	1,990 mi.	1 weekly
Shanghai-Amoy-Manila (Int'l)	1,895 mi.	2 weekly
Shanghai-Taipeh(Now Taipei, Taiwan)	710 mi.	1 weekly
Shanghai-Foochow-Amoy	860 mi.	1 weekly
Shanghai-Hankow-Kunming-Bhama-Calcutta (Int'l)	3,500 mi.	2 weekly
Shanghai-Hankow-Sian-Lanchow	1,900 mi.	1 weekly
Foochow-Taipeh	250 mi.	1 weekly
Chungking-Hankow-Peiping	1,785 mi.	1 weekly
Chungking-Canton-Hong Kong	1,080 mi.	2 weekly
Chungking-Kunming	640 mi.	2 weekly
Chungking-Chengtu	245 mi.	2 weekly

Table 3-5 (Con't.)

Chungking-Sichang	470 mi.	1 weekly
Chungking-Kweiyang	315 mi.	1 weekly
Peiping-Kweisui	420 mi.	1 weekly
Peiping-Taiyuan	395 mi.	1 weekly
Hong Kong-Canton-Hankow	590 mi.	3 biweekly
Lanchow-Suchow-Hami	1,215 mi.	1 monthly

Source: Jessup, A.W., "Planes for the Transport of China", Air Transport,
October 1947 - Reference 47.

3.2.2 CENTRAL AIR TRANSPORT CORPORATION

A. Eurasia Aviation Corporation

In February 1931, the foundations were laid for China's second biggest regular airline at that time. Under a contract between the Ministry of Communications and Germany's Lufthansa, the Eurasia Aviation Corporation was formed. The primary objective of that service was to provide several routes between the Far East and Europe. However, the refusal from the Russians to cooperate with the new corporation, plus the Japanese invasion of Manchuria and political disturbance in Sinkiang blocked this development. As a result, the company settled down to domestic operations. Sino-German control continued until the severance of diplomatic relations between the two countries in July 1941. Until that time, German pilots and chief mechanics were in charge of all the important operations. Quite naturally too, all planes used were German makes, principally Junkers. On August 1, 1941, the Ministry of Communication took over the operations of Eurasia completely and all the German staff members, including air and ground crew and advisors, were asked to leave China. By 1942, the company was down to one old, tired Junkers trimotor.

B. Establishing of CATC

However, some of the CNAC's staff were firmly convinced that some competition in China's airlines was necessary for the promotion of air transportation in China. Consequently, on March 1, 1943, the Eurasia Aviation

Corporation was completely reorganized to form the Central Air Transport Corporation. CATC collected what remained of Eurasia and also purchased a bulk lot of 150 planes from surplus for \$500,000 to form the basic fleet. Many of those airplanes purchased were actually cannibalized for spare parts.

Established as a subsidiary organization of the Ministry of Communications, the Central Air Transport Corporation was government-operated. The corporation was capitalized at \$20,000,000. Although it was provided in the by-laws that the corporation's capital could include private subscriptions, its capitalization at that time was limited to government investment.

C. Initial Operations

With Chungking as the center of operations, the passenger and freight services of the CATC reached Chengtu, Kunming, Kweilin, Lanchow, Liangchow, Su-chow and Hami.

In the first 16 months of operations, up to the end of June, 1944, airplanes of the Corporation had flown a total of 777 hours and 28 minutes covering an aggregate distance of 190,099 kilometers

The following table gives performance statistics of the Central Air Transport Corporation from March 1, 1943 to June 30, 1944:

Table 3-6

PERFORMANCE RECORD OF THE CENTRAL AIR TRANSPORT CORPORATION

MARCH 1, 1943 TO JUNE 30, 1944

<u>Name of Airline</u>	<u>Distance (Kilometers)</u>	<u>No. of Planes</u>	<u>Distance Flown (Kilometers)</u>	<u>Hours Flown</u>	<u>Passen- gers</u>	<u>Baggage (Kilos)</u>	<u>Freight (Kilos)</u>	<u>Air Mail (Kilos)</u>
Chungking-Kunming	650	2	26,195	124-46	360	5,628	12,493	1,845
Chungking-Kweilin	610	2	37,548	188-34	540	7,802	15,273	9,660
Chungking-Chengtu	200	2	14,411	70-57	587	8,133	8,300	1,563
Chungking-Tihwa	2,600	2	64,978	250-22	321	6,735	7,000	3,646
Kunming-Chengtu	680	4	19,556	83-02	77	1,804	4,713	231
Kunming-Kweilin	760	4	5,887	24-14	18	257	99	115
Kweilin-Chengtu	866	2	3,308	12-29	17	443	-	-
Special Flights	-	-	18,216	23-01	55	1,043	2,165	-

Remarks: The Tihwa station of the Chungking-Tihwa line was closed in June, 1944.

Source: Central Air Transport Corporation China Handbook 1937-44 -- Reference 4.

In 1947, the line was operating with 13 C-47s and 11 C-46s. Crew personnel included 25 first pilots, 36 co-pilots, and 27 flight operators. Included among the pilots were 15 Americans, most of whom had served with Air Transport Command or Troop Carrier Command Units in China during the war. Except for an American doctor hired away from CNAC all service personnel were Chinese. Lunghwa Airport was also the main base for CATC. However, this line's shop facilities were much less extensive than those of CNAC. It had no provision for engine rebuilding and had been getting by with surplus parts and engines.

D. Schedules of CATC in 1947

According to the round-trip timetable⁴⁷, CATC flew the routes as shown in Table 3-7:

Table 3-7

CATC Schedule in 1947

Shanghai-Nanking-Tsingtao-Peiping	1,275 mi.	3 weekly
Shanghai-Nanking-Hankow-Sian	1,445 mi.	3 weekly
Shanghai-Hankow-Chungking	1,450 mi.	3 weekly
Shanghai-Nanking-Tsinan-Peiping	1,135 mi.	3 weekly
Shanghai-Nanking-Tsinan	565 mi.	3 weekly
Shanghai-Nanking-Hankow-Chungking	1,485 mi.	3 weekly
Shanghai-Nanking	265 mi.	3 weekly
Shanghai-Amoy-Canton-Hong Kong	1,500 mi.	4 weekly
Shanghai-Hankow-Chungking-Kunming	2,090 mi.	3 weekly
Shanghai-Hankow-Chungking-Lanchow	2,330 mi.	1 weekly
Kunming-Liuchow-Canton-Hong Kong	1,235 mi.	2 weekly

Table 3-7 (Con't.)

Chungking-Hankow-Peiping	1,785 mi.	1 weekly
Chungking-Canton-Hong Kong	1,080 mi.	1 weekly

Actually there was a great looseness of scheduling. CATC readjusted their schedules according to available passengers and cargo for and from all points, to the limit of available aircraft.

3.2.3 SINO-SOVIET AVIATION CORPORATION (HAMIATA)

The Sino-Soviet Aviation Corporation was the third major airline formed in China. It was formally established in 1939 by the governments of China and Russia, each of which subscribed to 50% of the company's capital stock. Better known as Hamiata in China, the main purpose of its establishment was to operate services between Russia and China. This company operated for a short period of time between Chungking and Moscow, but after the Sino-Japanese War it concentrated on the more than 800* miles (about 1,400 km.) route across the Tien Shan mountains between Hami in the province of Sinkiang, China's far western province, and Alma Ata, capital of Kazakh Republic in southeast Russia, where connections were established with the main trunk routes of Aeroflot. This latter service, which was absorbed by SKOGA (People's Aviation Corporation of China) in 1952, was an important link in the long 4,500-mile route between the major coastal cities of China and Moscow.

Very little information was available during the period of this study concerning this airline. It is not clear how big the airline was, how extensive its network was or its schedules, etc. It is only known that it had a fleet of LI-2s (Russian-built DC-3s) and flew at least one round trip per week over the Tien Shan Mountain route. Its main office was at Tihwa (Urumchi) in the Sinkiang province.

*It is not clear what the exact distance of this route would be. Different editions of the World Airline Record give different mileage. In the 1952 edition, it gives the distance as 825 miles, while in the 1955 and 1965 editions the distance is 800 miles and 880 miles respectively.

3.2.4. CIVIL AIR TRANSPORT INCORPORATED

A. Formation of the Airline

The fourth major Chinese commercial airline that came into existence was the Civil Air Transport, Incorporated. Originally, it was known as the CNRRA Air Transport, or CAT for short, because the line was organized to serve the Chinese National Relief & Rehabilitation Administration after the Sino-Japanese War. Its main duty was to carry relief supplies to famine areas of three Chinese provinces cut off from land transport.

The airline was fathered by an American, retired Maj. Gen. Claire L. Chennault, of "Flying Tiger" fame, war time commander of the 14th Air Force and the American Volunteer Group (AVG). Over the objections of many United Nations Relief & Rehabilitation officers, Chennault and his partner, Whiting Willauer, former CAB counsel, China Defense Supplies executive, and head of the Foreign Economic Administrations Far Eastern Branch, finally obtained the CNRRA contract in 1946 after almost a year of negotiation.

B. Fleet Structure

Under that agreement, UNRRA Air Transport purchased 14 C-46s and 5 C-47s from surplus in Honolulu and Manilla and put them at the disposal of CAT. With those nineteen aircraft, CAT operated a daily fleet of 12 planes in 1947.

C. Personnel

The nucleus of the company was composed of ex-Flying Tigers, Army, Navy and Marine Corps men discharged from service after the war. In 1947, not counting business staff, there were 225 employees in CAT, including 50 Americans. Of the latter, 26 were chief pilots.

D. Marketing and Financing

According to CAT's management's estimate, any cargo worth \$2,000 per ton could be hauled 300 miles or more by air in China at an economy over the other modes of ground transportation. Into this, the high China interest rate at that time, about 15 to 20% each month, was included in the calculations. (This means that for every dollar tied up in commodities the owner would lose up to 20¢ per month.) Because of this fact, CAT had been extremely successful in the long haul markets where trip time was an important factor in determining the values of goods transported.

Financing of the airline had been complex. UNRRA purchased \$2 million worth of planes and operational equipment and provided another \$1 million for operating expenses. In addition, other private sources, mainly Chinese merchants from Liuchow, Kweilin, Hengyang, Hankow, Kunming, and Chungking, invested another \$1 million in CAT. In return, CAT had to pay off UNRRA either in cash or in services rendered.

E. Developments from 1947 to 1949

The company began non-scheduled cargo operations under the name CNRRA

Air Transport on February 3, 1947. Headquarters of CAT was at Hong Kong, with other operational bases located at Liuchow, Kweilin, Hengyang, Nanchang, Hankow, and Shanghai.

Under the contract with CNRRA, CAT could only act as a public carrier on the outward hauls, selling to consumers the unused CNRRA space if there was any available. On the inward hauls, CAT was limited to carry only relief and rehabilitation people and cargo. This would include all CNRRA passengers and freight and rehabilitation supplies which might have been sold by CNRRA at the coastal points to prospective users. At all times, anyway, CNRRA had the highest priority in using the available CAT spaces on all routes.

Another important point on the contract was that CAT would have to be terminated when CNRRA closed down. However, Chennault and Willauer had been quite confident that this would not happen. They believed that they could get permission to continue services as they were making an impressive record in moving export cargo from the hinterland to the port cities. It would be very unwise if the government of China forced CAT to go out of business. As things turned out, their judgements proved to be correct. CAT was allowed to operate purely commercial flights by the end of 1947.

In the first year of operations, CAT had expanded its business very rapidly and many scheduled services were inaugurated. It first opened service to Shanghai, the largest city in China, and then to Mukden(Shenyang) and Chinchow in Manchuria, where it operated a supply airlift from North China. Also CAT started the "Little Berlin Airlift" to Taiyuan in the province of Shansi where thousands of people died of hunger, and to the Hsuchow area from the Peking (called Peiping at that time) region. Some time later

CAT extended its operations into Central China and Tibet.

Besides helping out in the famine, CAT assisted the Nationalist Government of China to transport millions of dollars' worth of exportable goods such as cotton, tobacco, tin, bristles and wool from the inland area to the coastal ports for export. Transportation was so undeveloped in China that there was usually no other cheaper means of transporting these goods from the interior of China to the outside world.

Meanwhile, the Communists were extremely successful in the Civil War, winning decisive battles one after another. In 1949, like other Chinese airlines, CAT had to move out of Shanghai as the Communists took over the city. It retreated to Central China and started operating airlifts such as the Kunming-Chungking Airlift. However, as the Communists swept across China, flight and maintenance bases were constantly kept on the move. As a result, CAT management had to operate the airline with a high degree of flexibility.

In June 1949, CAT opened a highly successful air link between Haiphong in Indochina and the Yunan province in China, where rich tin mines were located. Unfortunately, this last effort of CAT in mainland China came to an end in January 1950 when the Communists captured Mengtze, western terminal of the tin lift.

F. Retreat to Taiwan (1949)

After the Communists took over the mainland, CAT moved with the Nationalist Government to the island province of Taiwan. During the crisis, it helped the Nationalists with the enormous task of evacuation, and also

bought some of the aircraft from the retreating Nationalist-controlled CNAC and CATC. However, Chennault's Civil Air Transport had to fight a 3-year court battle with the Communists in Hong Kong, where the aircraft had been flown to before the sale, before it finally won the suit and gained ownership of about 40 aircraft. The aircraft was then shipped to the United States for refurbishing and overhaul. CAT retained some of them for its services in Taiwan and sold the others.

On May 30, 1953, the Civil Aeronautics Act of the Republic of China was proclaimed. As a result, Civil Air Transport, Incorporated was reorganized in 1954 to comply with this Act requiring majority control by Chinese nationals of foreign-owned corporations domiciled in Taiwan. Thus, Civil Air Transport, Limited was formed to take over the route permits formerly held by CAT, Inc. The Republic of China government acquired a 51% interest in CAT, Ltd., and Chinese nationals bought about another 9%. The approximately 40% remaining was retained by CAT Inc.

CAT, Limited has remained in service ever since. Detailed descriptions of its development can be located in the current issue of the World Airline Record.

3.2.5 OTHER AIRLINES

Other airlines were non-existent. Government policy at that time simply discouraged the establishment of privately-owned airline companies. As a result, with the exception of the CNRRA Air Transport only the government airlines had been licensed for operation.

H. H. Kung (孔祥熙) interests tried to establish the Great China Aviation Co., but were refused permission to operate by the Ministry of Communications and the Executive Yuan even though they had actually purchased planes from surplus.

Several provinces had also shown interest in establishing what might be feeder airlines, but nothing more than talk had resulted. Much of these were due to the battle between the Ministry of Communications and the Chinese Air Force as to which would control commercial aviation.

There was though, one exception during the period. In 1932, the Southwestern Aviation Corporation, operated in Kwangsi and Kwangtung with the support of the two provincial governments. However, it was short-lived and services were discontinued in 1938.

3.3 REGULATIONS OF AIR TRANSPORTATION

3.3.1 GOVERNMENT STRUCTURE

The first organic law of the Nationalist Government was promulgated in July, 1925,⁴ under which the National Government was composed of five main branches, namely, the Executive Yuan (行政院), the Legislative Yuan (立法院), the Judicial Yuan (司法院), the Examination Yuan (考試院), and the Control Yuan (監察院).

A. The Executive Yuan

The Executive Yuan was the highest executive organ of the National Government. It had a president and a vice-president, elected and appointed by the Central Executive Committee of the Kuomintang from among the state councillors of the National Government at the recommendation of the President of the National Government. The heads of the various ministries, commissions, and administrations under the Executive Yuan were appointed and removed by the president of the National Government at the instance of the President of the Executive Yuan. In 1944, the Executive Yuan had eleven ministries, four commissions, and two administrations. They were:

1. Ministry of Interior;
2. Ministry of Foreign Affairs;
3. Ministry of Military Affairs;
4. Ministry of Finance;
5. Ministry of Economic Affairs;
6. Ministry of Education;

7. Ministry of Communications;
8. Ministry of Agriculture and Forestry;
9. Ministry of Social Affairs;
10. Ministry of Food;
11. Ministry of Justice;
12. Mongolian and Tibetan Affairs Commission
13. Overseas Chinese Affairs Commission;
14. National Relief Commission;
15. National Conservancy Commission;
16. National Health Administration;
17. National Land Administration.

Each ministry had a minister, a political vice-minister, each commission a chairman and a vice-chairman, and each administration a director and a deputy director, all appointed and removed by the President of the National Government at the instance of the President of the Executive Yuan.

The duty of the Executive Yuan was to direct, coordinate and keep under constant review the work of its ministries, commissions, administrations, and either directly or through them, to exercise general supervision over the administration of the provinces and special municipalities.

B. The Legislative Yuan

The Legislative Yuan was the highest legislative organ of the National Government. It had power to decide on the following matters: legislation, budgets, amnesties, declaration of war, negotiation for peace,

and other important international affairs. However, unlike other national legislature, it was not a policy-formulating body. It decided neither upon foreign nor domestic policy. But a treaty must pass the Yuan before it can become effective.

C. The Judicial Yuan

The Judicial Yuan was the highest judicial organ of the National Government. It had the power of interpreting all laws and orders and the power of altering court sentences. In addition, the Judicial Yuan might introduce bills on matters within its own competence and might petition the President of the National Government for amnesties, mitigation of sentences, or restitution of civil rights.

D. The Examination Yuan

The Examination Yuan was entrusted with the power of conducting civil service examinations and of determining the qualifications for public service.

E. The Control Yuan

The Control Yuan was the highest supervisory organ of the National Government. Its two principal powers were impeachment and auditing.

3.3.2 ESTABLISHMENT OF THE CHINESE CIVIL AERONAUTICS ADMINISTRATION

Even though commercial aviation was developed in 1929, there was no overall supervision of civilian aviation until 1946. Nominally, control was vested in the Bureau of Navigation of the Ministry of Communications.

On December, 1946, a separate Civil Aeronautics Administration was set up within the Ministry of Communications. Its staff was headed by a Chinese Air Force Officer, Lt. Col. Ango Tai (Tai An-Kuo). The nucleus of the organization was composed of 23 China Air Force personnel who spent a year studying air transportation with TWA and the U.S. Civil Aeronautics Administration. American CAA regulations were used as China's 'air bible'. Some time later, those regulations were being translated into Chinese.

3.3.3 ESTABLISHMENT OF AVIATION LAWS

Before the establishment of the Chinese CAA, after years of legislative study and revision, a civil aviation law was promulgated by the National Government on May 30, 1941.

The Civil Aviation Law contained eight chapters subdivided into 67 articles. The main provisions of law included the following:⁴

Manufacturers or owners of all civil aircraft must apply to the Ministry of Communications for inspection of the aircraft before any license will be issued by the Ministry.

Unless the original registration has been cancelled, no aircraft which has been registered in a foreign country may apply for registration in China.

All registered and licensed aircraft must bear clear markings of the Chinese registry on an easily visible part of the body of the aircraft.

Unless permission is given by the Ministry of Communications, aviation stations and airfields must not be used for purposes other than operations of civil aircraft. The lending, leasing, or putting out of commission of aviation stations and airfields must have the approval of the Ministry of Communications. When an aviation station or an airfield is used by a party other than the legal owner or management of the field for landing or take-off purposes, the management is entitled to collect certain fees, the rate to be set by the Ministry of Communications.

All aviation crews (including pilots) must first pass technical examinations to be conducted by the Ministry of Communications, and after securing qualification papers apply for a civil aviator's permit from the Ministry of Communications before commencing actual flying operations. The Ministry of Communications reserves the right to conduct periodical and provisional examinations of aviation personnel. In the case of any aviator whose technical ability, physique, or character falls short of the Ministry's required standard, the Ministry of Communications may limit, suspend, or cancel his license.

Except in the case of trial flights, all civil aircraft in operation must carry (a) testimonial that the aircraft is fit for operation, (b) license for the aircraft, (c) qualification papers of the crew, (d) pilots' permits, (e) aviation log, (f) name list of the passengers, (g) bills of landing and invoice of merchandise, and (h) if there is any radio transmitter in the aircraft, permit for the operation of the radio.

No aircraft, unless with the permission of the Ministry of Communications, is allowed to carry and transport fire-arms, ammunition, explosives, poison gas, radio transmitters, homing pigeons, or cameras. Nor are the crew, passengers, or other persons travelling in the aircraft allowed to carry such articles.

Aircraft used for transport purposes must have the permission of the Ministry of Communications, and in accordance with the provisions of the Chinese Postal Laws, must transport mail matter.

Unless the Ministry of Communications has secured the consent of the military and aviation authorities and the special approval of the Executive Yuan, no foreign-owned aircraft is allowed to fly over Chinese territorial air. All aircraft operating on international lines should take-off or land only on airfields designated by the Ministry of Communications as well as abide by all regulations.

The owner of the aircraft is held responsible for compensation for any casualty, damage to health or property as a result during the flight, whether the mishap is intentional or accidental.

3.3.4 ROCKY ROAD

Ahead of the newly created Chinese CAA in 1947 was a rocky road. Airports were in bad shape, except for a few of the wartime AAF (American Air Force) fields in southwest China. Night landing facilities were nonexistent. Communication was neither satisfactory nor sufficient. Weather reporting was haphazard and slow. Whatever regulating took place in the past was accomplished by the airlines themselves. Also, pressure from above -- CNAC was 80% government owned and CATC was completely government owned -- to provide maximum service had made it difficult to carry out regulations contained in the Civil Aviation Law.

Establishment of the Chinese CAA should settle jurisdictional disputes between the Ministry and the Chinese Air Force as to which would control commercial aviation. However, the CAF was a very powerful political force in a country which was controlled so thoroughly by the military (this is still very true in both mainland China and the Province of Taiwan). Some questions remained as to Chinese Air Force's complete acceptance of defeat on what very many militarists believed was a vital topic.

Besides the troubles with the Chinese Air Force, the Chinese CAA faced a lot of other problems right at the beginning. There were a harvest of fatal crashes in 1947. The cause of this was simply due to the fact that operations then were greater than airports, equipment, communications, and meteorological services available could possibly support. The airlines were not wholly to blame. With other means of transportations slow and so limited, the government as part or full

owner was pressing the airlines. Eventually, the airlines were forced to run operations beyond the minimum safety allowances and more accidents were inevitable.

In addition too much was needed and too little finance was available to expect an overnight miracle. This, along with the shortage of regulatory personnel, was fully recognized by Col. Tai. As a result, the Chinese CAA had resolved to hire foreign experienced personnel.

Maintenance regulations had been left completely to the companies before the establishment of the CAA. CNAC was definitely in the lead with equipment. One can imagine this line certainly would not like competition and consequently had not shown much interest in making service available to CATC and the other airlines on a fee basis. While regulations previously were the companies' concern, they then must follow Chinese CAA rules. This turned out to be another tough job for the CAA.

Uniform rates were established by the Ministry and prevailed on all lines. These ran about CN\$265 per mile for passengers (\$0.038 U.S. at the open market exchange rate at that time). However, both CNAC and CATC claimed to lose money at that figure in the face of inflation. The same was also true on the freight rates. At the official exchange, CN\$3350 was equivalent to US\$1 while the open market ratio was 7,000 to 1 in October 1947. The latter ratio had jumped incredibly after that date. Just before the Nationalists' retreat to Taiwan, the Chinese National Dollar was almost worthless, Hence, rate-making had been troubling the CAA a lot during the years 1947 to 1949.

Another difficult spot of regulating was private flying. First of all, permission to import personal planes, while it had not been refused,

had not been granted. There had been long delays resulting from the jurisdictional dispute mentioned before. Secondly, serious obstacles to private flying would be airports. Almost all airfields had been taken over by the Chinese Air Force. Only under great public pressure had the CAF granted its permission for four-engined planes to land on the Kiangwan runway, the only one in Shanghai suitable for heavy plane operation. International airlines planning to use such planes as Boeing Stratocruisers on trans-Pacific hops had found no airport big or sturdy enough for operations along the coast of China. The Chinese CAA really had a hard time on airport issues.

So much had been troubling the then newly established CAA. Even though air transport had been, and could continue to be, an important life vein of China, it was doomed unless money, personnel, and strong backing was given to the Chinese CAA. To make things worse, against the CAA was raised the banners of the military, the feudal landlords, and the self-seeking politicians. Unfortunately, no time was permitted for its steady growth. The Communists won the civil war and the Nationalist government was ousted from the mainland in 1949.

3.4 International Air Agreements

After the second World War, international air services were expanding all over the world. Although hindered by the fact that runways were too short at China's international airports - Tientsin, Shanghai and Canton, there were services connecting China with Burma, India, Hong Kong, the Phillipines, and the Soviet Union.

Most of the international services were just a continuation of interrupted services before the war. They were maintained by certain informal arrangements.

However, with the establishment of the International Civil Aviation Organization, and the ever-growing size of international aviation, more formal air agreements were necessary for the expansion of international services. Consequently, on December 20, 1946, an air agreement was reached with the United States government, basically the Bermuda type. Again, on July 23, 1947, an air agreement was signed with Great Britain. Later in 1949, the Dutch airlines were also given commercial landing rights in China. All these agreements, though never denounced, had failed to be implemented after the Communist take-over.

3.4.1 Air Agreement with the United States (1946)

In 1946, Mr. William Robertson of the United States Civil Aeronautics Administration, was responsible for negotiating an air transport agreement between China and the United States.* The agreement and accompanying exchange of notes between China and the United States of America were signed at Nanking on December 20, 1946.¹² (The contents of the Agreement and Accompanying Exchange of Notes can be located in Reference 12 Vol. 3, pages 3403-3429.) Representing the United States was the Honorable J. Leighton Stuart, then Ambassador of the United States of America to China, while Dr. Wang Shih-Chieh, Minister for Foreign Affairs of China, signed the Agreement for China. This was and still is one of the most liberal bilateral agreements on record. Basically, it is of the Bermuda type. Airlines of both countries had been granted the right of transit and non-traffic stops in the territory of the other. United States airlines was permitted to pick up and discharge passengers, cargo and mail at Shanghai, Tientsin and Canton. (Note the omission of Peking and Nanking, as they did not have adequate airport facilities to handle international flights. Apparently, Tientsin was used as the gateway to Peking and Shanghai was used as the gateway to Nanking which was then capital of the Republic of China.) Chinese airlines were allowed similar traffic rights at Honolulu, San Francisco and New York. The Agreement had named the carriers to be made responsible for scheduled operations between the two countries as China National Aviation Corporation and the Central Air

*Flight, January 9, 1947 -- Reference 66.

Transport Corporation for China (the Nationalist Chinese Government had asked the Civil Aeronautics Board to cancel this foreign air carrier permit issued to CNAC and CATC on February, 1971^{*}), and for the United States Northwest Airlines, Pan American Airways and Trans-World Airlines.

For the Chinese Airlines, three routes were agreed upon:

1. China over a Pacific route via Tokyo, Kurile Islands, the Aleutian Islands to Alaska to San Francisco and beyond.
2. China over a Pacific route via the intermediate points of Manila, Guam, Wake, and Honolulu to San Francisco and beyond.
3. China over an Atlantic route via intermediate points in Indo-China, Burma, India, the Near East, Africa and Europe to New York and beyond.

With this routing pattern, it permitted round-the-world flight for a designated Chinese flag carrier serving the United States ports of entry on both east and west coasts.

Similarly, the United States carriers were accorded rights on the following routes:

1. The United States over a Pacific route to Tientsin and Shanghai and thence to the Philippine Islands and beyond, as well

^{*}Aviation Week and Space Technology, March 1, 1971, p. 27 -- Reference 65.

as beyond Shanghai via Route no. 3 described below.

2. The United States over a Pacific route to Shanghai and Canton and beyond.
3. The United States over an Atlantic route via intermediate points in Europe, Africa, the Near East, India, Burma and Indo-China, to Canton and Shanghai and beyond.

On each of the above routes the airlines authorized to operate such route may operate nonstop flights between any of the points on such route omitting stops at one or more of the other points on such route. In addition, there was no predetermination of frequencies or capacity or of any arbitrary division of air traffic between countries and their national airlines. Fifth and sixth freedom traffic were also allowed, making the Agreement really flexible.

Northwest Airlines of the United States first made use of this Agreement. It started service between Seattle and Shanghai on July, 1947.* The routing had comprised the following principal segments: Seattle-Anchorage; Chicago/New York-Twin Cities-Anchorage, via Edmonton; Anchorage-Tokyo-Shanghai-Manila.

Almost at the same time, the China National Aviation Corporation started a regular service between Shanghai and San Francisco.** Aircraft would land at Honolulu, Midway and Guam, and the single fare was 900 dollars (U.S.).

*World Airline Record, 1950-51, p. 118 - Reference 7.

**Flight, May 1, 1947, page 401 - Reference 66.

3.4.2 Air Agreement with Great Britain

The next important air agreement signed was the one with Great Britain. In 1947, Great Britain sent a mission to China.* On July 23, 1947, a four-year agreement was signed permitting British and Chinese airlines to fly regular services between British and Chinese territories.** The Chinese Corporations would be permitted to fly from London or Singapore to Canton, Shanghai and Tientsin, and also from Hong Kong to Canton and Shanghai, and the Chinese airlines were permitted to operate services to London and Prestwick on routes across the Pacific, North America and the Atlantic, and also through the Middle East and Southern Europe. In addition, Chinese airlines were also permitted to fly from Shanghai or Canton to Hong Kong and Singapore. The officially designated flag carriers were the CNAC for China and Hong Kong Airway, Ltd. for Great Britain (BOAC would fly passengers between Hong Kong and London).***

*Flight, June 12, 1947, p. 560 - Reference 66.

**Flight, July 31, 1947 - Reference 66.

***Flight, June 19, 1947, p. 585 - Reference 66.

3.4.3 Air Agreements with the Netherlands

In 1949, Dutch Airlines were also given commercial landing rights in Shanghai, Kunming, Canton, and Tientsin.* Chinese lines would land at Amsterdam, Batowia, Sourabaya, Medan, Palembang, Balikpapan, Makassar and Kupng. KLM and CNAC were the designated flag carriers.

*Flight, January 29, 1949 - Reference 66.

CHAPTER 4

EARLY EFFORTS IN AVIATION DEVELOPMENTS
UNDER THE COMMUNISTS

4.1 The Early Days (1949)

"We will have not only a powerful army but also a powerful air force and a powerful navy."

From the opening address by Mao Tse-Tung at the First Plenary Session of the Chinese People's Political Consultative Conference, September 21, 1949.

From the above quote, there is no doubt that the Communists were very anxious to build up their military aviation. However, their desires to build up civil aviation were not any less.

Civil aviation in the People's Republic of China was virtually created overnight when the pilots and crews of nine Curtiss C-46 and Douglas C-47 civil transports of the China National Aviation Corporation (CNAC), one of the two major Nationalist civil airlines, defected to the Communists on November 9, 1949, as the Nationalists were retreating to the island province of Taiwan.² Seventy-one of the remaining CNAC and CATC (Central Air Transport Corporation) aircraft, including DC-3s, DC-4s and C-46s, were flown to Hong Kong. Slightly before the retreat, Civil Air Transport, Incorporated, founded by Gen. Chennault, bought all the aircraft that belonged to the CNAC and CATC from the Nationalist Government. However, having occupied the mainland, the Communist Chinese Government also claimed the ownership of these aircraft. As a result, these 71 aircraft were stationed in Hong Kong and a decision by the Hong Kong govern-

ment was pending regarding their legal ownership.

On February 23, 1950, the Hong Kong Supreme Court ruled that the aircraft rightfully belonged to the People's Republic of China, thereby denying the rights of CAT while providing PRC with all the airplanes that were needed to start civil aviation operations on the mainland. The Communists were quick to send their crews to Hong Kong and repainted the airplanes with flag markings of the PRC. However, they never really received the aircraft. In July 1952, the ruling was reversed, and the decision was that the aircraft belonged to the Americans.

Hence, the People's Republic of China had to start building its aviation network from scratch. Even with the nine air transports defecting from CNAC plus a few other civilian planes remaining, commercial air traffic was nearly non-existent in the early days. The civil war had left many ground facilities and aircraft damaged or destroyed. Airports were all in a poor state. Maintenance facilities and fuel stocks for the planes were meager. Moreover, there was a serious shortage of trained personnel. Consequently, any air services that existed in the early days were merely military traffic operated with the assistance of the Russians.

4.2 The Early Years (1949-1954)

Although civil aviation was totally disorganized in 1949, the Communist Government, however, had already formulated a plan for their national airline at the time of the take-over.

With Soviet help, the Chinese set up the Civil Aviation Bureau (CAB) in 1950.⁵³ Nominally under the Ministry of Communications, the Bureau was actually controlled by a high-level military committee.

In 1950, two airlines were established. The first one, set up by the CAB and completely Chinese owned, is the China Civil Aviation Corporation (CCAC). The second one, with a Russian abbreviated name SKOGA, and in Chinese 中蘇民用航空股份有限公司 (Sino-Russian Joint Stock Civil Aviation Company Incorporated), was an expansion of Hamiata.

4.2.1 THE CHINA CIVIL AVIATION CORPORATION (CCAC)

In 1950, the Civil Aviation Bureau recruited former airline personnel of the Nationalist's airlines to set up the China Civil Aviation Corporation (CCAC). It was owned entirely by the Chinese government and began services with about 25 US-built aircraft, half of which needed repairs. Its initial activities were mainly in support of the military.

With a fleet of twelve or so airworthy aircraft, the CCAC operated services in Eastern and Southern China. With Tientsin, Chungking and Canton as bases, it served the cities of Hangchow, Kweiyang, Kunming, Chengtu and Hankow (See Figure 4-1).

In July, 1952, the Civil Aviation Bureau changed the name of CCAC to People's Aviation Corporation of China. Even this name was short-lived. In 1954, it was dissolved along with SKOGA and replaced by the Civil Aviation Administration of China (CAAC).

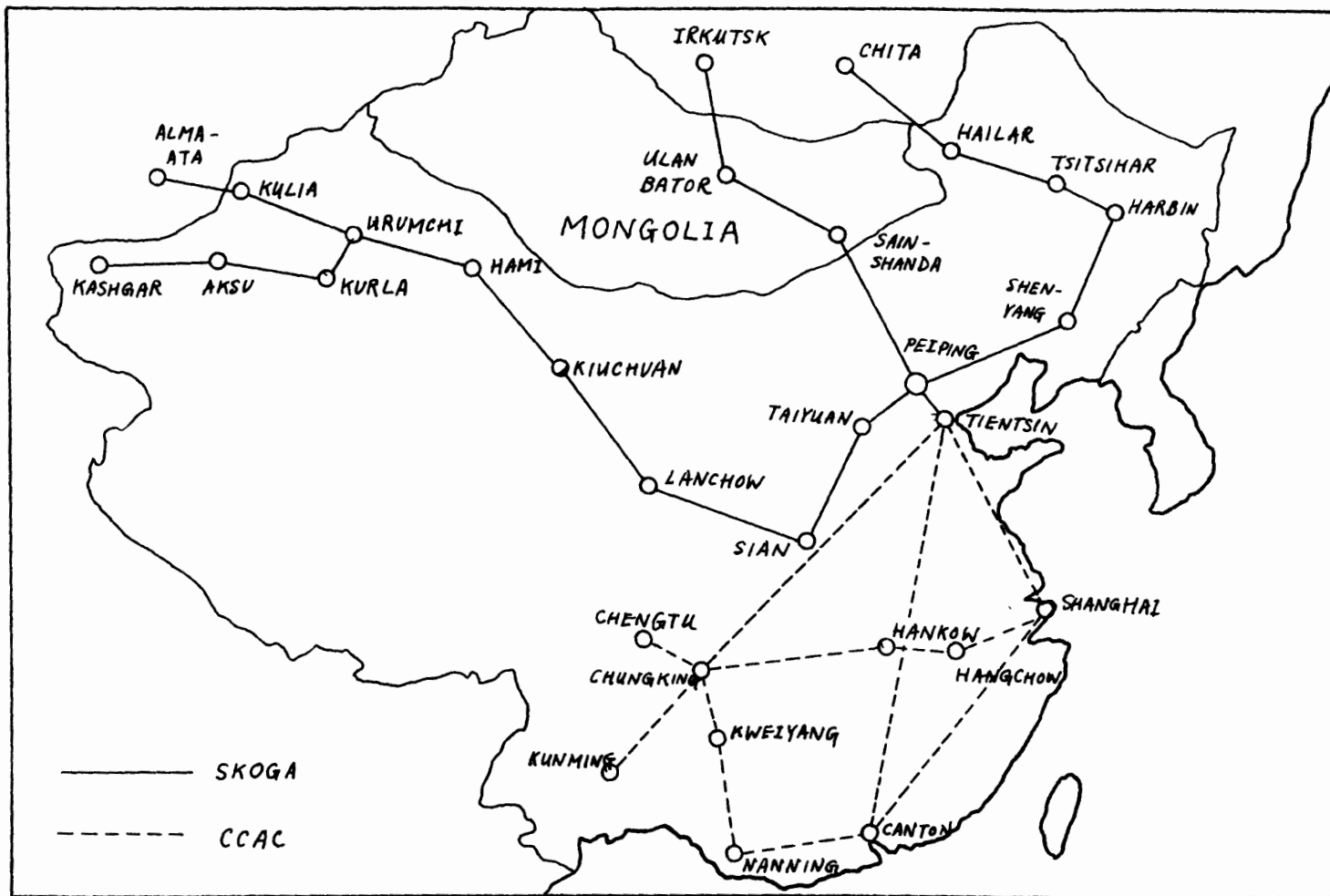


Figure 4-1. Air Networks of China (1950 to 1954)

4.2.2 SKOGA

A. Establishment (1950)

The first negotiations between Communist China and the Soviet Union on civil aviation took place in 1950. A ten-year "Agreement of the Establishment of a Joint Stock Sino-Soviet Civil Aviation Company" was concluded in Moscow on March 27, 1950. In accordance with this Agreement, the Sovetsko-kitayskoe aktsionernoie obshestvo grazhdanskoy aviatsii (SKOGA) was inaugurated. This new company was actually an expansion of the Sino-Soviet Aviation Corporation (Hamiata) that was formed in 1939. Supposedly, it was founded on the principle of "equal rights and partnership", with the main purpose of helping the development of civil aviation in Communist China and strengthening the economic cooperation and cultural exchange between Communist China and the Soviet Union.

Hence, the capital of this new company was provided by the two governments on a fifty-fifty basis. However, though owned equally by the two countries, Moscow had furnished the airline with most airplanes, pilots, and other accessories necessary for operations, including fuel, spare parts and maintenance facilities.

In addition, throughout the early years, Aeroflot had provided the necessary technical assistance as there was a serious shortage of trained aviation technicians in China, and the Russians also trained a number of Chinese students sent to Moscow to become aeronautical engineers.

For the Chinese part, CAB helped the expansion of SKOGA by supplying co-pilots, radio operators, and ground crews.

B. The Initial Fleet

Among the company's flight equipment were Douglas DC-3s originally sent to Russia from the U.S. under a wartime lend-lease program and the Russian built Lisunov LI-2 transports, license-produced versions of the Douglas DC-3.

C. New Routes (See Figure 4-1)

When SKOGA took over Hamiata, there was already a connection between Peking and Moscow via Chungking. The more than 800 mile route across the Tien Shan mountains between Hami in the Sinkiang province and Alma Ata, capital of Kazakh in southeastern Russia, served as an important link in the long 4500-mile flight between Peking and Moscow. Now, with Peking as the capital of the People's Republic of China, a more direct routing to Moscow was desirable.

Consequently, on August 1, 1950, the following three routes were inaugurated:

- (1) Peking-Chita, via Shenyang, Harbin, Tsitsihar, and Hailar;
- (2) Peking-Irkutsk, via Ulan-Bator; and
- (3) Peking-Alma Ata, via Taiyuan, Sian, Lanchow, Kiuchuan, Hami and Urumchi.

The Peking-Chita route and the Peking-Irkutsk route created a more directed routing from Peking to Moscow through the comparatively well-developed Siberian services of Aeroflot which had major terminals located at both Chita and Irkutsk.

In addition to the above mentioned three routes, in 1953, the Peking-Urumchi (Tihwa) route was extended about 750 miles to Kashgar (Sufu), an important commercial center in westernmost Sinkiang province, via Kurla and Aksu.

D. Operations

The headquarters of the company was in Peiping (at that time Peking was called Peiping), the national capital of the People's Republic of China. With Russian investments, the company got off to a fast start.

However, although the aviation network was expanding, business volumes were disappointing. Very few people could afford the luxury of traveling by air. Finally, at the end of 1954, the Russians handed over all the equipment to the Chinese government and the airline was dissolved.

4.2.3 GENERAL SITUATIONS OF CIVIL AVIATION

Although SKOGA and CCAC had reestablished air services over the main routes previously developed by CNAC and CATC, the apparent volume of service was little, if any, greater than in 1940 and only about half of that in 1947. (See Table 4-1). Moreover, considering the fact that an important part of SKOGA's mileage (roughly one quarter) was flown on the Peking-Irkutsk route, internal progress was perhaps slower than the overall figures might indicate.

The main reason for the comparatively slow growth of air transportation in this period was the high cost of gasoline, especially in the western part of China. At some interior points, gasoline had to be brought in over great distances by caravan or truck. Hence, the cost might end up ten times higher than that at the ports along the east coast.

There was no uniform fare structure, first class or economy, and the fares were adjusted to some extent to make up for higher gasoline costs. In general, the rates per passenger-mile ranged from about 5¢ to 7.5¢ (US currency) for short-haul traffic out of Peking and Shanghai, to 15¢ to 20¢ on the far western routes.

As of October 1, 1954, the total network of commercial services in China added up to approximately 8,850 unduplicated route-miles. Monthly aircraft-miles came to about 260,000.

TABLE 4-1

Some Traffic Data for 1947 and 1954

	<u>1947</u> <u>(October)</u>	<u>1954</u> <u>(October)</u>
No. Cities Served	50	28
Unduplicated Route Miles	15,000	8,835
Route-Miles Per City	300	316
Daily Scheduled Aircraft Miles	20,373	8,334
Daily Aircraft Miles per Route Mile	1.36	0.94
Annual Estimated Seat Mile Capacity	225,000	75,000

Source: World Airline Record, 1965

Reference 10.

4.3 Establishment of the Civil Aviation Administration of China (CAAC)

On September 15, the first session of the First National People's Congress met in Peking with 1141 deputies attending.²⁹ Following the Congress, the Civil Aviation Bureau was abolished and the Civil Aviation Administration of China (CAAC) was set up, under the direct control of the Ministry of Transport and Communications.

In the same year, after two weeks of negotiations, a series of Sino-Soviet agreements were announced in Peking. One of the agreements was that the Russians promised to relinquish its shares in four Sino-Soviet joint stock companies by January 1, 1955. Among the four mentioned joint stock companies was SKOGA.

Two days before the dissolution of SKOGA, a joint "Agreement between the Government of the People's Republic of China and the Government of the Union of Soviet Socialist Republics Concerning the Establishment of Scheduled Air Service between China and the Soviet Union" was signed in Peking with the principal provisions of the Agreement as opening three air routes: (1) Peking-Moscow, (2) Urumchi-Alma Ata, and (3) Peking-Chita by civil aircraft. The details of this Agreement will be elaborated upon in a later chapter on foreign relations.

As a result of the earlier agreement, business of the Sino-Soviet Joint Aviation Company (SKOGA) was suspended on January 1, 1955, and its assets, securities and administrative authority were transferred to the China Civil Aviation Administration (CAAC).

The Chinese-owned carrier, already reorganized twice, was dissolved along with the Sino-Soviet airline. From 1955 on, CAAC had been not only

the name of the administration organization, but was also the name of the national airline of the People's Republic of China. Hence, its functions had been many-fold. On one hand, it administered all the development of civil aviation in China. On the other hand, it managed and operated the business of commercial air transportation of the Chinese flag carrier.

4.3.1 ORGANIZATION OF CAAC

The exact organization of CAAC is still little known to the outside world. However, from limited available sources, it seems that it has a similar organizational structure as that of Aeroflot.

Although in 1962, a major change took place and CAAC was elevated to become the General Administration for Civil Aviation in China (GACAC), it is still commonly known as CAAC. Since then it has been placed under the direct control of the Council of State, and has become a very powerful ministry department with great authority.

Kuang Jen-nung (or Quang Jen-nun) has been CAAC's Director- General since 1955, an unusually long term for a high-level administrator in China. Although made an air force lieutenant-general in 1964, until 1967, he and CAAC have few operational ties with the military. The only exception would be the sharing of some airfields and also some of the airline pilots are former air force pilots. However, CAAC's duty on promoting civil aviation was seldom mixed with military activities.

The home office consists of most departments normally found in an airline headquarters, plus some typical of government agencies in capitalist countries -- general business, planning and research, domestic routes, international operations, personnel, flight operations and air traffic control, navigation, communications, meteorology, equipment, maintenance, engineering, construction, training, finance and supply, medical, security, editorial publications, staff office. CAAC also has headquarters for special-purpose aviation, overhaul facilities and its own aviation school in Peking. Like all Chinese organizations, CAAC has a political section at all levels.¹

Actual flight and support operations are directed by six regional bureaus based in 6 major cities, including Peking. Each regional bureau is in charge of promoting air transportation within its region, which normally consists of five to six provinces or autonomous regions. However, although local airfields and support facilities are under the supervision of the bureaus, a substantial degree of freedom was given to the local people running them to decide how they should manage and operate the facilities. This economic independence allow the local agencies to take initiative of their own. (Actually, this is not only happening in the aviation field in China. In other areas, like manufacturing factories, the local supervising staff were always free to decide how much they should produce, how fast they should buy, etc. The national government would only help them to formulate their plans, provide technical assistance if needed, with seldom interference.) This is obviously a good way, as the local people would know best about their present needs. An example in the air transportation area would be: a transportation management office in a province, a county or a commune can build an airfield, petition for schedule changes or plan aerial surveys in consultation with the regional bureau according to local need. So far, this system works satisfactorily in China even though materials were almost always lacking.

In January 1967, in the midst of the Cultural Revolution, by joint order of the State Council and the Central Military Commission, civil aviation bureaus at all levels, ground service and maintenance units, airports, and flying schools were placed under the control of military forces. The air force was the branch placed in control. The air force

continued to control the complete air transport system throughout the Cultural Revolution Period, and there was no indication now that the system had changed.

4.3.2 THE ROLE OF CAAC

CAAC wields authority in all civil aviation activities. It has the power and function of the FAA and CAB in the United States and manages Communist China's only airline, also known as CAAC. Besides air transport, CAAC provides all specialized services, such as crop-dusting.

Its functions are many-fold and can be summarized as the following:

A. As a Government Administration Ministry

Its bureaus are in charge of licensing of aircraft, registration of air carriers, and examination of personnel. In addition, it is also responsible for the planning and construction of new airports and other maintenance facilities, opening up new airways and improving the air traffic control system.

B. As an Airport Operator

Its next duty is that of an airport operator. Airports were maintained by the local agencies under its supervision. Services were provided to carriers, which included refuelling of airplanes, checking of airworthiness, performing overhauls and providing parking aprons, etc.

C. As an Airline Management

As the operator of the national airline, it is also in charge of doing

ticketing, financing, accounting, marketing, etc. for CAAC, the airline. Hostesses had to be trained. Crew scheduling, fleet planning, and flight scheduling are all its main concerns.

D. As a Training Institute

It is also responsible for the training of aviation technicians, mechanics, navigators, and pilots. This is provided through the aviation school of CAAC at Peking.

E. As a Foreign Relations Department

It does most of the negotiations of air agreements with foreign countries for China. As China is a country where politics, diplomacy and foreign trades were always mixed together with international aviation, CAAC had consequently played an important role in the recent change of foreign relations with many countries. Because of China's advantageous geographic location, the opening up of air space in China to foreign air carriers had become a very powerful tool in foreign negotiations. Thus, the importance of CAAC is ever increasing.

F. As a Supporter to Other Government Sectors

As agriculture is the life-blood of the Chinese people, many of the aviation facilities were made available just for the sake of agriculture. Of course, there are other aspects (like geological surveying) that also

used a lot of civil aviation, but agriculture had no doubt been getting the most benefits out of it.

A special section of CAAC, called Special Flight Group, was formed which is expertly doing jobs like fertilizer dusting for the agricultural sector. Many planes were specially designed with their main function being the spraying of fertilizers such as the Shenyang AN-2s. They were called 'agriculture planes' in China sometimes instead of civil transport, although they too were part of the backbone of CAAC's initial fleet in the 1950's.

Besides crop spraying, the Special Flight Group also did forestry work, geological and territorial surveys, pest control and seed sowing.

4.3.3 AS TIME GOES BY

After taking over SKOGA and the People's Civil Aviation Company in 1954, CAAC immediately launched its campaign in the development of aviation in China. For the domestic side, routes were laid out between major Chinese cities; and for foreign aviation, a route was set up between Harbin, in Manchuria, and the Siberian border town of Chita in the Soviet at the end of 1954. However, most of the traffic between China and the Soviet Union was still handled by Aeroflot flying directly to Peking from Russia.

On New Year's Day, 1955, another direct link to Russia was opened from Sinkiang Province to Alma-Ata, where the line connected with an Aeroflot link to Central Russia.

The year 1956 marked the first scheduled route to a non-Communist state. On April 11, 1956, a CAAC inaugural flight using Ilyushin IL-14M left Kunming at 7:30 A.M. and arrived at Rangoon, Burma at noon. The IL-14M was acquired from Russia to augment and replace the aging Nationalist airliners during the Korean War. It was the first modern CAAC transport and was assigned to high-frequency passenger routes. CAAC really treasured their new planes and even illustrated them in their flight timetables. Although the airplane was also used by the military from time to time, it was licensed in three-digit 600 series registration for civil use.

Growth continued the next year and more new routes were opened including an IL-14M link between Peking and Sining in Tsinghai Province in January, 1957.

In 1958, as part of Chairman Mao Tse-tung's Great Leap Forward Policy, considerable efforts were given to the expansion of the CAAC civil air fleet.

More and more feeder lines were opened throughout the country. The national objective was to link all of China together by means of air transportation. The new feeder lines were widely publicized in the Chinese media, and ceremonies were held at their inaugurations. Shenyang AN-2, a Chinese-made version of the Antonov AN-2, were the most widely used airplanes because of their ability to land at difficult locations. This is extremely important considering the fact that most of China's northwest, southwest and central regions are really rough terrain and had very backward airfields (which were mostly just a piece of grass strip with no lighting and air traffic control facilities to help landings at all).

A typical example of the significance of this kind of feeder line was the route opened on July 11, 1958, between Taiyuan and Changchih in Southeastern Shansi. This route across rough terrain usually took four days by land; but with the AN-2, the CAAC flight completed the trip in two hours.

In 1959, the CAAC claimed that practically all the "old-fashioned U.S. planes" had been replaced by modern Ilyushin and Chinese built transports. This statement was not totally true. Although the older planes were taken out of service on passenger routes, they were being used extensively on cargo flights and other special duties.

Late in 1958, Chinese pilots, crewmen and mechanics were sent to Moscow to begin training on the four-engine turboprop Ilyushin IL-18. Subsequent to the trainings, five IL-18 transports were ordered to operate on routes between Canton and Peking in 1959.

Throughout the first few years of its existence, CAAC made numerous attempts to improve its equipment and service. However, CAAC's civil air fleet had not been significantly modernized. The failure of the Great Leap Forward of the late 1950's, plus the ideological split that took place

between the PRC and Russia in the early 1960's, forced many ambitious civil aviation plans to a grinding halt.

CAAC's activities reached a low point around 1963, after the Russians called back all their advisory personnel and stopped all technical aid to China. Airplanes were stranded on the ground for lack of gasoline, or simply because there was nobody to fly them. Spare parts were badly needed and many good planes had to be taken apart in order to keep the others flying. That was really a 'black period' for the CAAC. However, the Chinese held their ground strongly and started the "self-reliance" campaign. Very soon, spare parts were produced single-handedly in Chinese factories and the situations had finally reversed itself by 1968.

Since 1968, the growth rate of CAAC has been accelerating at a tremendous speed. More routes were inaugurated, and especially fascinating is the fact that China is buying bigger and faster airplanes for the use in both its domestic and international services.

Today, CAAC has built up a domestic network of substantial size and is at the moment exploring world aviation. It is no longer a sleeping giant in the orient -- it has awakened! And its voice will soon be heard around the world.

CHAPTER 5

PRESENT SITUATIONS OF AIRLINE OPERATIONS IN CHINA

5.1 An Overview

5.1.1 BACKGROUND: A QUARTER-CENTURY OF GROWTH

From an almost non-existent air network, the sole airline of Communist China (CAAC) has developed into a domestic and international carrier equipped with modern jet aircraft operating over a substantial part of Asia's civil aviation route system within the last 25 years. Growth has been continuous. Although the exact figures are always lacking, as China usually released only percentages of growth on its achievements, yet with the limited available sources, we can tell that improvement has been quite impressive. Especially when one takes into account the low priority China gave to its development efforts in passenger travel compared with other sectors like agriculture and irrigation, plus the fact that most of the establishments in aviation were accomplished without adequate industrial support, one must admit that the Chinese people have made notable progress.

Moreover, CAAC has established aviation as a means of transportation for the convenience of the general public. This can be reflected by the way domestic rates were set (which has no profit incentive at all) and also by the way the Chinese government had dealt with foreign countries in negotiating air bilateral agreements (in which non-competition is always emphasized).

The expansion of aviation infrastructure (airports and aviation service

facilities) in the country since 1949 has been even more impressive. The upgrading of the three international airports at Peking, Shanghai and Canton plus the recent installation of new navigation equipment proved important for the establishment of international air system. As China has now rejoined ICAO, it can be seen that China will soon have its facilities modernized to reach the ICAO standards.

Freight traffic still dominates the domestic market while business and official travel accounts for almost all of the growth in both domestic and international passenger air travel. Not too many tourists in the Far East were able to travel in China yet but people are looking forward for a change someday. When the day comes that tourists can enter China freely again, it will also be the day that profitability on the routes to China will be possible.

Domestic growth in aviation has shown a less consistent pattern, but air freight transportation is already a firmly established element in the air transportation system. As for passenger transport, demand has always been great; but the domestic air fare, though seemingly low by Western standard (about 4¢ per mile), are just too high for the ordinary citizens of China to afford. The Chinese government still has very rigid control over labor wages. Hence, in the near future, not much increase in domestic pleasure air travel can be expected. However, as the country tries to develop its industries, business travel will certainly boom in the coming days.

5.1.2 REGIONAL AVIATION

The planning of civil aviation in China can be divided into two parts. In addition to the overall development by CAAC, the individual communes in China formed their own committees to decide and work on the transportation needs in their own regions.

Most of the time the need is for agriculture. As a result, almost all of the communes in China has at least a landing strip good enough so that small 'agricultural planes' like the AN-2s can land. As mentioned in the previous chapter, the Special Flight Group of CAAC performs a lot of 'general aviation' for the agriculture sector.

Besides developing regional aviation for agricultural purposes, in some regions where other modes of transportation are difficult and undeveloped, air transport becomes the life-blood to that region. This is true especially for the western part of China where the terrain is really rugged. Although two East-West cross country railways have now been completed, many of the important cargoes, including agricultural and industrial products have to be shipped in and out of some regions by plane. For those regions, non-scheduled freight traffic is essential and is being developed.

5.1.3 NATIONAL AVIATION PLANNING

Other efforts on domestic regional aviation development are from the head government. The CAAC is in charge of providing the necessary scheduled service to the whole country. Although the population of China tends to be concentrated along the east coast, CAAC had however put in very little

TABLE 5-1

NETWORK GROWTH DATA - SELECTED YEARS

<u>Year</u>	<u>No. of Cities Served</u>	<u>No. of Routes</u>	<u>Unduplicated Route Miles</u>
1947(Oct.)	50	-	15,000 Miles(24,135 km.)
1950	-	-	7075 Miles(11,387 km.)
1952	13	10	8070 Miles(13,000 km.)
1954(Oct.)	28	-	8835 Miles(14,216 km.)
1957	38	29	16,159 Miles(26,000 km.)
1958	-	-	20,505 Miles(33,000 km.)
1960(August)	80	-	24,535 Miles(39,477 km.)
1964(Nov.)	-	43	23,990 Miles(38,600 km.)
1968	-	-	24,855 Miles(40,000 km.)
1973	90	About 80	37,290 Miles(60.000 km.)

attention to the coastal cities except the few international entry ports like Shanghai, Tientsin and Canton. Other big coastal cities like Foochow, Tsingtao, Amoy, Ningpo and Dalien received very little or no scheduled services. The reason behind it is probably because land transportation is pretty much established in the coastal area in addition to the convenience of water transport. Hence, we can see that the national transportation policy of China has been to provide transportation services in accordance to the real needs. There might be more people travelling in the coastal area, but priority in air transport development was first given to regions that are hard to gain access by land.

From 1950 to 1973, from various sources, the network is thought to have expanded more than 5 times. The rate of growth is shown in Table 5-1. By the end of 1973, the CAAC network served about 90 cities with an unduplicated mileage of about 37,290 miles.

From Table 5-1, we can see that 1947 had been an important year for civil aviation in China. Air traffic was at an all time high and this peak was not reached again until 1957. However, the civil war practically destroyed all the fruits of efforts accumulated through the years. In 1949, there was almost nothing left.

With Soviet help, air routes were opened up again and growth was steady until 1960. Then, the breach with Russia caused another downfall. There was very little growth from 1960 to 1968.

After 1968, as air transportation proved its importance during the start of the Cultural Revolution, it was given a higher priority for development. Since then, network growth has been rapidly on the uprise.

5.1.4 ENTERING WORLD AVIATION

With the purchases of the 10 Boeing-707s, the basic fleet required for CAAC's international venture has been created. Now, with the air agreements signed so far, its flag carrier can provide round-the-world service whenever the Chinese leaders so desire.

However, China has not, as yet, made use of all the privileges in the air agreements. One reason why is probably because of the careful attitude of the Chinese leaders. It seems that they want to wait until they have grasped the necessary knowledge in airline management well (like knowing the airplanes they fly, knowing ICAO rules, etc.) so that they can start out to give the world first-class service.

This is always the case in recent Chinese issues. They have always wanted to play safe and have wanted to make sure that a good job can be done before actually doing it. The buying of the Concorde is an example. When the Chinese government first announced that they had put in three options for the controversial SST, the world was amazed. Right now, it was reported that they would wait and see how the Concorde works in the market before putting in their firm orders.

As China has already started services to Japan, very soon, they will learn more about the operations of international airlines and acquire the necessary experience. Therefore, we can expect a day not too long from now when China will start its world-wide operations.

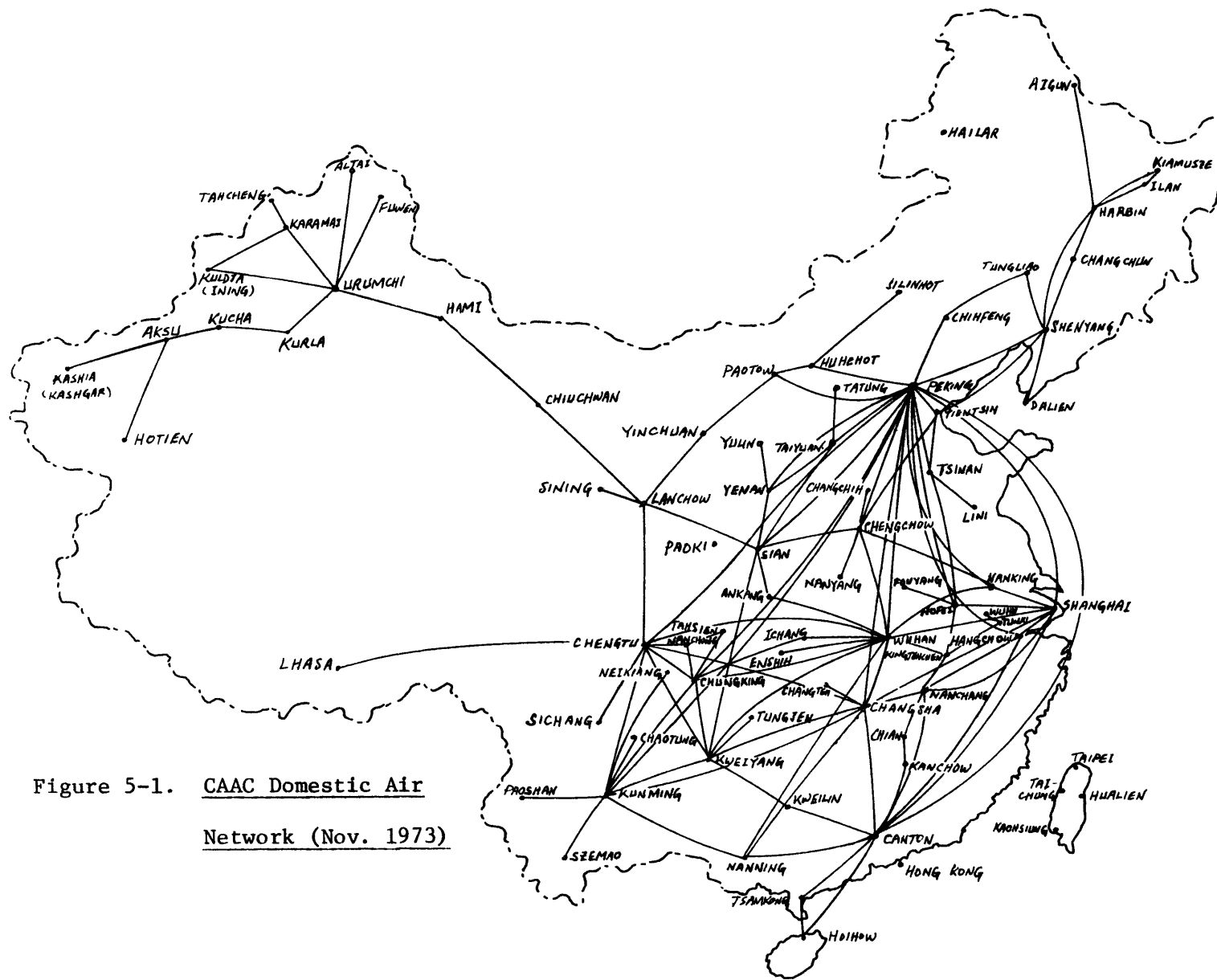


Figure 5-1. CAAC Domestic Air Network (Nov. 1973)

5.2 Network Routings and Schedules

5.2.1 DOMESTIC SERVICES

As shown in Figure 5-1, by the end of 1973, CAAC's domestic network served a total of about 90 cities, with a total length of almost 40,000 un-duplicated route-miles.

We can see that Peking is the nerve center of almost all the domestic air traffic. In November 1973, it had direct flight services to 26 cities in China plus many of the international flights to 10 foreign countries. Although Shanghai is the biggest city in the world and is one of the biggest industrial centers in China, its importance in air transport is just no match to Peking, the national capital, where most of the business and party travel are generated.

One point that requires special attention is the distribution of networks. The overall system is a hubs-and-spokes type, with Peking as the center of the network. Shenyang in the northeast region, Wuhan in central China, Shanghai on the east coast, Canton on the south coast, Kunming in the southwest region, Urumchi in the northwest region, Chengtu in the mid-west and Lanchow in between Central China and the northwest, all together form the major satellites (or hubs) of China's air network. All these satellites have direct links to Peking, with the exception of Urumchi, which links Peking via Lanchow. From these satellites, branches (or spokes) are laid out to nearby cities and towns, forming the completed network. Many of these spokes are not shown in the map as they are non-scheduled services to the communes.

TABLE 5-2

Peking-Canton Domestic Services Time-table

(Nov. 1974)

Source: Constructed from Nov. 1974 OAG

1234567	1234567	1 5	123456	3 7	4 7	Weekdays	3 6	3 7	123456	4 7	1234567	1234567
CA 135	CA133	CA314	CA131	CA181	CA312	Flight No.	CA311	CA182	CA132	CA313	CA134	CA136
1315	1245	1220	0905	0840	0730	Peking	1625	1830	1610	2145	2100	2135
↓	↓	1440 1515	↓	↓	0950 1020	Chengchow	1405 1330	↑	↑	1925 1850	↑	↑
↓	↓	1705 1755	↓	↓	1210 1300	Wuhan	1140 1050	↑	↑	1700 1610	↑	↑
1455 1455	↓	↓	↓	↓	↓	Shanghai	↓	↑	↑	1905 1905	↑	↑
↓	↓	1910	↓	↓	1415	Changsha	0935	↑	↑	1455	↑	↑
↓	↓	1945	↓	↓	1450	↓	0900	↑	↑	1420	↑	↑
1800	1540	2150	1200	1320	1655	Canton	0700	1405	1315	1220	1625	1900
707	Y62*	PRP	Y62	TRD	PRP	A/C Type	PRP	TRD	Y62	PRP	Y62*	707

One-way one Class Fare: Peking-Canton (1163 Miles) RMB 244.00 U.S.\$ 107.36

Note: * : CA134 switch to Boeing-707 at Shanghai
A/C Type: 707 = Boeing 707
Y62 = Ilyushin-62
PRP = Propeller Aircraft Type varies
TRD = Hawker Siddeley Trident

Another feature in the Chinese air network that is interesting is the high proportion of available air service to the industrial centers. This is understandable as many factories had been forced to stop production just because one single part was not available before air transportation in China was developed. Days or even months were needed for shipment of the needed parts. The Communists realized this and put in a lot of efforts in providing the required air traffic to these industrial cities. Taiyuan, for example, gets a lot of attention. The same is true for Wuhan, Chengtu, Lanchow and Shenyang.

The busiest domestic route is the Peking-Canton route. A time-table of the services between these two cities has been constructed from the November 1974 issue of the Official Airline Guide and is shown in Table 5-2. Altogether there are 26 one-way flights weekly in this sector. Fifteen are non-stops; another 7 are one-stop daily jet services via Shanghai; with the remaining 4 flights being 3-stop propeller flights via Changsha, Wuhan and Chengchow. Note that both Boeing-707 and IL-62 are used for domestic services between Canton and Shanghai.

One reason why the Canton traffic to Peking is so dense (relatively) is probably because a great number of visitors still enter the country through Canton, which is a comfortable 125-mile train ride from Hong Kong. Besides, Canton is the ultimate destination of most businessmen going to the semi-annual trade fairs.

The next busiest domestic route is the one between Peking and Shanghai. A time-table has again been constructed from the Official Airline Guide and is shown in Table 5-3. There are 16 weekly domestic flights between the two cities, including 2 daily non-stop Boeing 707 flights. In addition to these

TABLE 5-3

Peking-Shanghai Domestic Services Time-table

(Nov. 1974)

Peking - Tsinan - Nanking - Shanghai

Daily	6	Daily	2	Weekdays	2	Daily	6	Daily
CA135	CA153	CA151	CA154	Flight No.	CA513	CA152	CA154	CA134
1315	0735	0745	1400	Peking	1320	1200	1600	2100
			1515 1555	Tsinan	1205 1115			
	0940 1045		1740 1830	Nanking	0930 0850		1435 1330	
1455	1130	0925	1930	Shanghai	0750	1015	1245	1905
707	JET	707	JET	A/C Used	JET	707	JET	707

One-way One Class Fare:

	<u>RMB(Yuan)</u>	<u>U.S.\$</u>	<u>Excess Baggage Rate</u>
Peking - Shanghai(643 Miles)	150.00	66.00	1% Fare/kg.
Peking - Nanking(558 Miles)	123.00	54.12	1% Fare/kg.
Peking - Tsinan(229 Miles)	52.00	22.88	1% Fare/kg.

Note: A/C Type: 707 = Boeing 707

JET = Jet Aircraft Type Varies

Source: November 1974 Official Airline Guide

16 weekly flights, there are more flights going in between the two cities which are segments of the international flights between China and some foreign countries.

The traffic between Shanghai and Canton is also very dense. Hence forming a busy Peking-Shanghai-Canton triangle.

Frequencies in most sectors haven't been increased by too much over the past few years, but the total capacity has increase a great deal with the introduction of larger airplanes. Moreover, the network has improved a great deal by the general increase in non-stop flights.

A. CAAC Domestic Flight Schedule

A complete November 1973 CAAC domestic flight schedule is shown in Table 5-4. The time-table has been translated from one shown in the March 1974 issue of the Japanese magazine Aireview (Reference 79). There are 82 routes in all, including 2 non-scheduled service routes. Actually, there are a lot more non-scheduled services in China. Scheduled services only form a small portion of all the air traffic (which includes military traffic) in China.

Unfortunately, there are no flight numbers and types of aircraft printed along with the routes in the Aireview timetable. An attempt to match the routes with those shown in the Official Airline Guide also failed because the OAG seemed to include only the major domestic flights.

However, from other various sources, it is believed that jet services are only available to the major hubs like Shanghai, Canton and Peking. Even Wuhan had as yet no scheduled jet services. For the smaller cities, propellers like the IL-18s, IL-14s and Viscounts are used.

TABLE 5-4

CAAC FLIGHT SCHEDULE

(Domestic Services)

Effective Nov. 1, 1973

<u>Routes</u>	<u>Onward Trip</u>	<u>Return Trip</u>
Peking-Shanghai	1,3,4	1,3,4
Peking-Nanking-Shanghai	6	6
Peking-Tsinan-Nanking-Shanghai	2	2
Peking-Tsinan-Hofei-Shanghai	1,3,5	3,5,7
Peking-Nanking	4	4
Peking-Canton (Kwangchow)	daily	daily
Peking-Shanghai-Canton	2,5,7	2,5,7
Peking-Hangchow-Canton	7	7
Peking-Changsha	6	6
Peking-Chengchow-Wuhan-Changsha-Canton	1,4,5,7	3,4,6,7
Peking-Nanning	2,5	2,5
Peking-Changsha-Nanning	1	1
Peking-Chengtu-Kunming	2,6,7	1,2,6
(Return trip on 1 bypasses Chengtu)		
Peking-Chengchow-Kunming	4	4
(Return trip stops at Changsha instead of Chengchow)		
Peking-Sian-Chungking-Kunming	3	2
Peking-Chengchow-Wuhan-Kweiyang-Kunming	6	5
Peking-Sian-Chengtu	3,4*	3,5*
Peking-Sian-Chungking-Chengtu	5	4
Peking-Taiyuan-Sian-Chengtu	1	7
Peking-Shenyang	4*	4*
Peking-Shenyang-Changchun-Harbin	2,3,4,5,6,7	2,3,4,5,6,7
Peking-Shenyang-Dalien	1	1
Peking-Taiyuan-Yenan-Sian	2,4,6	2,4,6
(Return trip non-stop at Taiyuan)		
Peking-Sian-Lanchow	5	5
Peking-Taiyuan-Sian-Lanchow	2,3,7	1,2,6
Peking-Paotow-Yinchuan-Lanchow	4	3
Peking-Huhehot-Silinhot	1,3,5	1,3,5
Shanghai-Nanking-Chengchow-Sian	6	6
Shanghai-Nanking-Chengchow-Sian-Lanchow	2,5	3,4
Shanghai-Hangchow-Nanchang-Canton	1,3,4,6	1,3,4,6
Shanghai-Hangchow-Changsha-Canton	2,5	2,5
Shanghai-Nanchang	Non-Scheduled Service	
Shanghai-Nanchang-Changsha-Kweiyang-Kunming	1,4	2,5
Shanghai-Nanking-Tsinan-Tientsin-Shenyang	2*,3,5,7	1,3*,4,6

Note: 1,2,3,4,5,6,7 stand for Monday, Tuesday, Wednesday, Thursday, Friday, Saturday, Sunday respectively.

*Cargo flights.

CAAC FLIGHT SCHEDULE (CONT'D)

<u>Routes</u>	<u>Onward Trip</u>	<u>Return Trip</u>
Canton-Nanning	4,6,7	4,6,7
Canton-Nanning-Kunming	2,5	2,5
Canton-Kweilin	1,4	1,4
Canton-Kweilin-Kweiyang-Chungking-Chengtu	2,7	3,6
Chengtu-Lhasa	1,2,4,5	1,2,4,5
Chengtu-Changsha-Shanghai	6	6
Chengtu-Chungking-Wuhan-Nanking-Shanghai	2,4	3,5
Chengtu-Chungking-Wuhan-Nanking	6	7
Chengtu-Sian-Taiyuan-Peking-Shenyang	1	2
Chengtu-Lanchow	Non-Scheduled Service	
Chengtu-Hsichang	3,5	3,5
Chengtu-Kweiyang-Tungjen	3,5	3,5
Lanchow-Sining	1,2,4,6	1,2,4,6
Lanchow-Chiuchuan Hami-Urumchi	1,3,6	2,4,7
Lanchow-Sian-Chengchow-Tientsin-Shenyang	7	1
Shenyang-Changchun-Harbin-Kiamusze (or Chiamussu)	1,3,6	1,3,6
Shenyang-Peking-Chengchow-Wuhan-Changsha	2*	3*
Changchih-Taiyuan	4	4
Changchih-Taiyuan-Tatung	2,6	2,6
Nanchang-Chian-Kanchow	1,2,3,4,5,6	1,2,3,4,5,6
Nanchang-Kingtehchen	2,4,6	2,4,6
Hofei-Fouyang	1,2,3,4,5,6	1,2,3,4,5,6
Hofei-Anking-Tunki	1,2,4,6	1,2,4,6
Tsinan-Lini	1,3,5	1,3,5
Canton-Haikow(Hoihow)	1,4,6	1,4,6
Canton-Chankiang-Haikow	daily	daily
Wuhan-Ichang-Enshih	1,2,3,4,5,6	1,2,3,4,5,6
Changsha-Changteh	1,3,5	1,3,5
Nanyang-Chengchow	1,2,3,4,5,6	1,2,3,4,5,6
Chengtu-Nanchung-Chungking	2,4,6	2,4,6
Chengtu-Nanchung-Tahsien	1	1
Chengtu-Nanchung-Tahsien-Chungking	2,4,6	1,3,5
Kunming-Paoshan	1,3,5	1,3,5
Kunming-Chaotung	1,4	1,4
Kunming-Szema	2,4,6	2,4,6
Kunming-Neikiang	7	7
Sian-Ankang	1,2,4,5,6	1,2,4,5,6
Sian-Yenan	3	3
Sian-Yenan-Yulin	2,5	2,5
Urumchi-Kurla(Korla)-Kutcha-Akosu(Aksu)-Kashgar	2,5	3,6
Urumchi-Kurla-Kutcha-Akosu-Hotien(Khotan)	4,7	1,5
Urumchi-Altai	2,4,6	2,4,6
Urumchi-Ining	3,6	3,6
Urumchi-Karamai	3	3
Urumchi-Fuwen	2,4,6	2,4,6
Shenyang-Dairen(Dalien)	5	5
Harbin-Ilan	1,3,5	1,3,5

B. Domestic Timetables

One special character of CAAC's printed timetables is that their timetables would always include timetables of the foreign airlines. Maybe this is a good way to demonstrate their attitude of non-competition.

Some of the domestic service timetables are shown in the coming few pages. They are translated from a CAAC timetable effective April 1, 1973.

The schedules are in local times, and there are remarks like 'CAAC Schedules effective as from April 1st 1973 and subject to change without notice' printed on the timetable just like the ones usually found in the Western airlines' timetables.

Weekdays are represented by numbers, just like the numbering system used in the OAG. i.e., 1 stands for Monday, 2 for Tuesday, etc.

From the timetables, it can be seen that stop-over time for most airports is between half an hour to one hour. There were not too many non-stop flights and frequency of service was still very low in 1973.

TABLE 5-5

DOMESTIC TIME TABLE

Kwangchow(Canton) - Shanghai

(April 1973)

1 5	4 6	2	Weekdays	2	4 6	1 5
351	534	532	Flight No.	531	533	352
7.05	13.50	14.40	Kwangchow	14.05	13.10	18.10
8.50	15.35	17.00	Nanchang	11.40	11.20	16.20
9.30	16.05	17.50		10.50	10.30	15.45
10.45	17.20	19.30	Hangchow	9.00	9.05	14.20
11.20	17.50	20.00		8.25	8.30	13.40
12.00	18.30	20.45	Shanghai	7.40	7.50	13.00

Source: Translated from April 1, 1973 CAAC Time Table

TABLE 5-6

DOMESTIC TIME TABLE

Peking - Shanghai

(April 1973)

1 4 6	2	6	1	Weekdays	1	6	2	3 5 7
512	514	156	157	Flight No.	158	156	513	511
7.50	13.30	8.00	8.15	Peking	15.15	16.00	12.40	14.00
9.20	14.45	↓	↓	Tsinan	↑	↑	11.25	12.30
10.00	15.15	↓	↓		10.35	11.40		
↓	17.00	9.45	↓	Nanking	13.30	14.15	8.50	↑
↓	17.30	10.45	↓		12.35	13.30	8.10	
12.00	↓	↓	↓	Hofei	↑	↑	↑	9.40
12.50	↓	↓	↓		↑	↑	↑	9.05
14.20	18.30	11.30	10.30	Shanghai	11.50	12.45	7.10	7.30

Source: Translated from April 1, 1973 CAAC Time Table

TABLE 5-7

DOMESTIC TIME TABLE

Kwangchow(Canton) - Hangchow - Shanghai - Peking

(April 1973)

5	3 7	6	1	4	Weekdays	4	1	6	3 7	4
186	184	134	134	132	Flight No.	131	133	133	138	185
8.45	16.35	13.25	12.45	16.35	Kwangchow	↑ 15.35	11.35	12.00	15.30	21.55
11.00 12.15	↓	↓	14.25 15.20	↓	Hangchow	↑	↑	10.15 9.20	↑	↑
↓	18.30 19.45	↓	↓	↓	Shanghai	↑	↑	↑	13.25 12.00	19.15 18.00
15.00	21.45	16.05	17.15	19.20	Peking	12.40	8.45	7.30	10.05	15.45

Source: Translated from April 1, 1973 CAAC Time Table

TABLE 5-8

DOMESTIC TIME TABLE

Kwangchow(Canton) - Peking

(April 1973)

2	3 7	2 5	Weekdays	3 6	1 4	2
136	313	311	Flight No.	312	314	135
18.15	11.50	7.00	Kwangchow	↑ 16.20	21.00	16.50
	13.50 14.20	9.00 9.35	Changsha	14.15 13.45	18.55 18.05	15.45 14.45
	15.35 16.05	10.50 11.40	Wuhan	12.30 11.40	16.50 16.20	↑
↓	17.55 18.45	13.30 14.05	Chengchow	9.50 9.15	14.30 14.00	
20.55	21.05	16.25	Peking	7.05	11.50	12.45

Source: Translated from April 1, 1973 CAAC Time Table

TABLE 5-9

DOMESTIC TIME TABLE

Peking - Harbin

(April 1973)

1 3 4 6 7	Weekdays	1 3 4 6 7
161	Flight No.	162
8.25	Peking	20.25
10.35 11.05	Shenyang	18.05 17.15
12.15 13.05	Changchow	16.05 15.35
14.05	Harbin	14.35

Source: Translated from April 1, 1973

CAAC Time Table

TABLE 5-10

DOMESTIC TIME TABLE

Kwangchow(Canton) - Kweilin - Nanning - Kunming
(April 1973)

1	6 7	3 4	7	Weekdays	7	3 4	6 7	1
341	331	331	337	Flight No.	338	332	332	342
7.10	13.20	15.50	7.00	Kwangchow	10.55	20.40	17.40	20.40
↓	↓	↓	8.40	Kweilin	9.15	↑	↑	↑
9.05 9.40	15.15	17.45		Nanning		18.50	15.50	18.50 17.50
12.00				Kunming				15.45

Source: Translated from April 1, 1973 CAAC Time Table

TABLE 5-11

DOMESTIC TIME TABLE

Peking - Shanghai
(April 1973)

5	2	4	Weekdays	4	2	5
153	153	151	Flight No.	152	154	154
16.00	12.00	7.00	Peking	12.25	18.25	21.55
17.55	13.55	9.15	Shanghai	10.00	16.25	19.55

Source: Translated from April 1, 1973 CAAC Time Table

C. Summary of Domestic Services in 22 Major Cities

In order to illustrate the hubs-and-spokes concept as mentioned before, twenty-two cities have been chosen and their particular direct service networks drawn.

In addition, tables putting together the non-stop distance between these cities, the frequency of service, and the respective fares were tabulated. The April 1972 frequencies were obtained from Reference 50. It seems that the timetable used in that report is incomplete. It only covered the major domestic routes. Hence the frequencies appearing in the table may not necessarily represent the total frequency of traffic. This is also true for the frequencies of service of April 1974, which were acquired from that month's issue of OAG.

Under the non-stop distance column, the numbers in parentheses are the mileages given in Reference 50; those mileages in brackets were estimates from maps; and the remaining mileages are quoted from the OAG.

In many cases, fares were located only in RMB (Ren Min Bi - Chinese currency), and the exchange rate used to calculate the equivalent in US\$ is 1 yuan (RMB) = 0.44¢ U.S.

In some other instances, actual data were not available and a dash was used.

The 22 cities chosen are Canton, Changsha, Chengchow, Chengtu, Chungking, Hangchow, Kunming, Kweiyang, Lanchow, Nanchang, Nanking, Nanning, Peking, Shanghai, Shenyang, Sian, Taiyuan, Tientsin, Tsinan, Urumchi, Wuhan and Yen-an. Yen-an is not really a major city on the mainland, and it is not exactly a traffic hub either, at least not yet. However, it is included in

the group because of its potential to become a tourist center. Even now, many of the tourists to China would pay a visit to Yen-an, the headquarters of the Communists in the late 1930's and early 1940's. The government set up a few museums there and travel to Yen-an is encouraged to both visitors and even the Chinese people in general. The choice of Hangchow is for the same reason. It is a place of natural beauty. In addition, its airport is very well developed and equipped, and serves as a secondary airport to Shanghai's Hung Chiao International airport. Tsinan, Kweiyang, and Tientsin are not big air centers, but their locations enable them to have the potential to become this in the future. Of the rest, Peking, Shanghai, Canton, Kunming, Urumchi, Wuhan, and Shenyang stand out as the air hub of their region. They have direct services to most of the other cities and in turn connect with the smaller neighboring towns and local communes by feeder services.

A matrix showing how well the 22 cities are connected is shown in Table 5-34. Note that the matrix is not symmetrical as round-robin scheduling is used on some routes.

TABLE 5-12

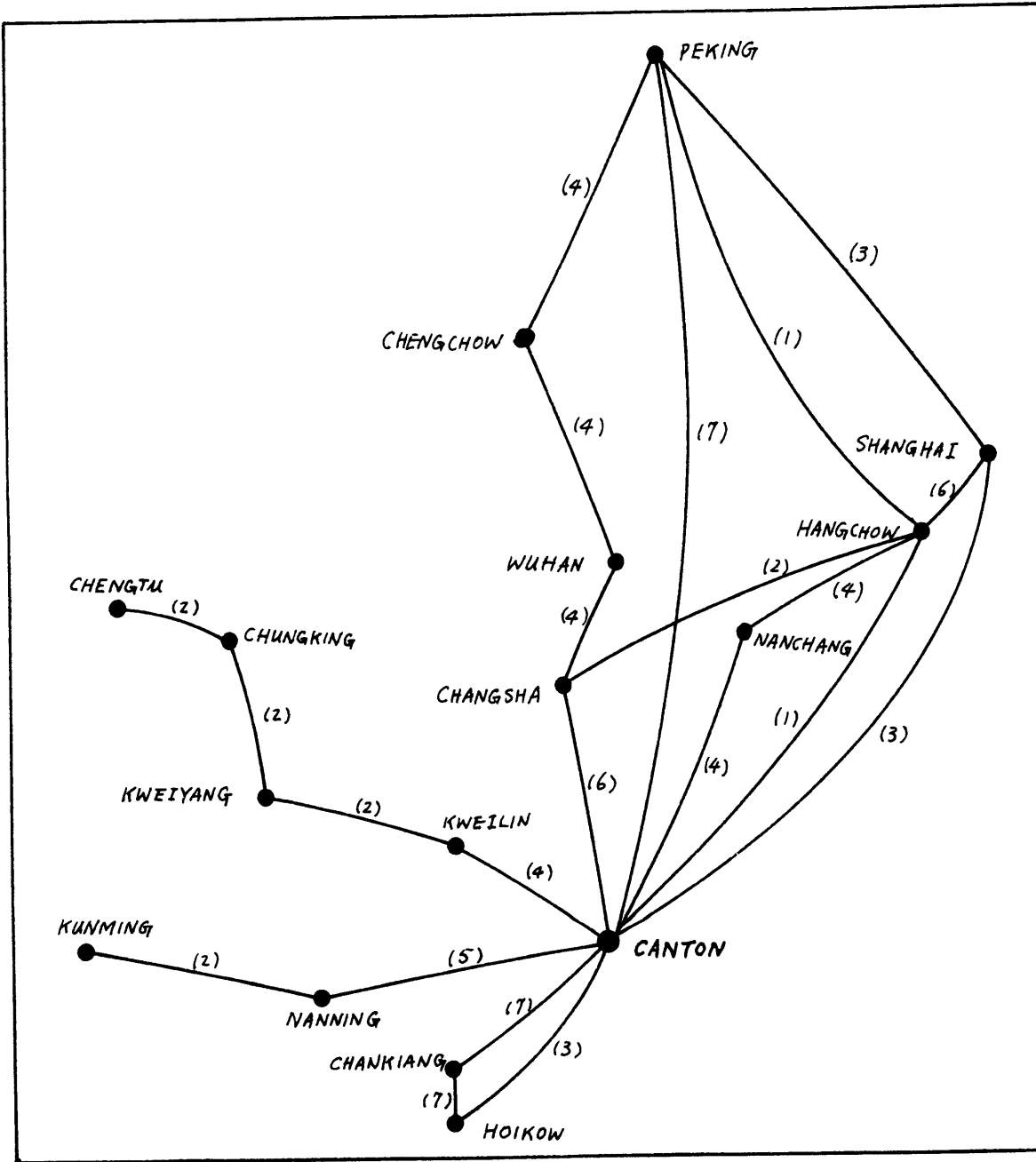
SUMMARY OF DIRECT SERVICES FROM CANTON

<u>From/To</u>	<u>Non-Stop Distance (Miles)</u>	<u>Frequency/week</u>			<u>o/w One Class Fare</u>	
		<u>April 1972</u>	<u>Nov. 1973</u>	<u>Nov. 1974</u>	<u>RMB (yuan)</u>	<u>U.S.\$</u>
1. Canton/ Changsha	469	7	6	4	68.00	29.92
2. /Chankiang	[236]	-	7	-	-	-
3. /Chengchow	923	4	4	4	-	-
4. /Chengtu	[743]	-	2	-	-	-
5. /Chungking	[604]	-	2	-	-	-
6. /Hangchow	[618]	5	7	6	135.00	59.40
7. /Hoikow	[297]	-	10	-	-	-
8. /Kunming	[681]	4	2	2	163.00	71.72
9. /Kweilin	[243]	-	4	-	-	-
10. /Kweiyang	[417]	-	2	-	-	-
11. /Nanchang	414	4	4	6	81.00	35.64
12. /Nanking	[674]	-	-	-	164.00	72.16
13. /Nanning	314(339)	5	5	5	75.00	33.00
14. /Peking	1163(1267)	8	15	26	244.00	107.36
15. /Shanghai	744	5	9	13	155.00	68.20
16. /Wahan	[486]	4	4	4	106.00	46.64

Note: Distance: [] - estimated by measurements from maps.

() - from Reference 50.

without brackets or parentheses - from OAG.



Note: Number in parenthesis represents round-trip weekly frequency from Canton. However, if accompanied by an arrow, that number represents the frequency in the direction of the arrow.

FIGURE 5-2 DIRECT SERVICE NETWORK OF CANTON (NOV. 1973)

TABLE 5-13

SUMMARY OF DIRECT SERVICES FROM CHANGSHA

<u>From/To</u>	<u>Non-Stop Distance (Miles)</u>	<u>Frequency/Week</u>			<u>o/w One Class Fare</u>	
		<u>April 1972</u>	<u>Nov. 1973</u>	<u>Nov. 1974</u>	<u>RMB (yuan)</u>	<u>U.S.\$</u>
1. Changsha/ Canton	[326](469)	5	6	4	68.00	29.02
2. /Changteh	[111]	-	3	-	-	-
3. /Chengchow	[451]	4	4(1)	4	98.00	43.12
4. /Chengtu	[556]	-	1	-	-	-
5. /Hangchow	[444]	2	2	-	-	-
6. /Kunming	670(724)	-	2	2*	-	-
7. /Kweiyang	[354]	-	2	2	-	-
8. /Nanchang	181	4	2	2	37.00	16.28
9. /Nanning	471(510)	-	1	1	100.00	44.00
10. /Peking	824(799)	6	7(1)	6**	179.00	78.76
11. /Shanghai	[549]	4	5	2	116.00	51.04
12. /Shenyang	[1104]	-	(1)	-	-	-
13. /Wuhan	(168)	4	4(1)	4	38.00	16.72

*Return trip Kunming to Changsha has 3 direct flights per week

**Return trip Peking to Changsha has 5 direct flights per week

Frequency/week: no. in parenthesis = cargo flight frequency

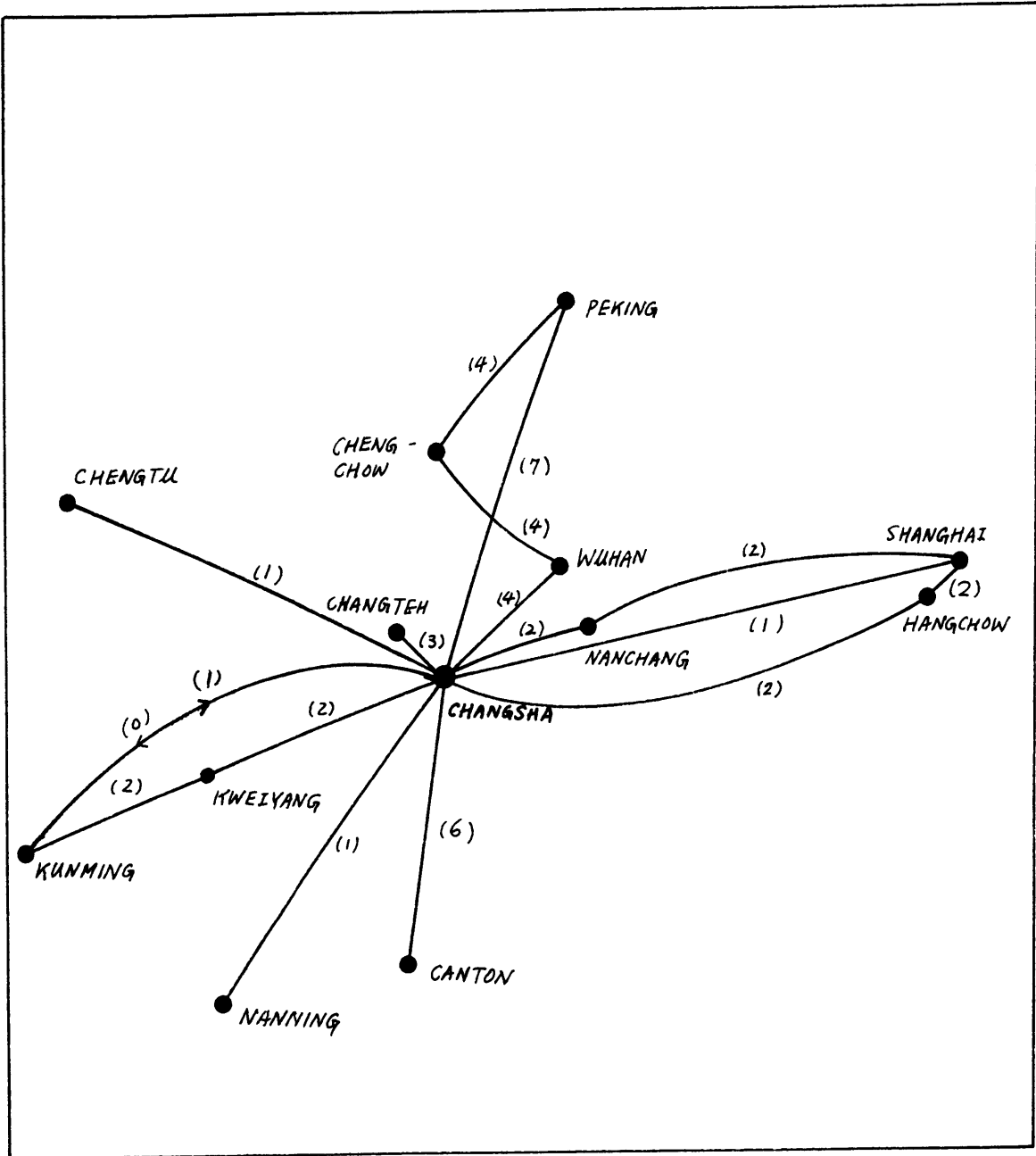


FIGURE 5-3 DIRECT SERVICE NETWORK FOR CHANGSHA (NOV. 1973)

TABLE 5-14

SUMMARY OF DIRECT SERVICES FROM CHENGCHOW

<u>From/To</u>	<u>Non-Stop Distance (Miles)</u>	<u>Frequency/week</u>			<u>o/w One Class Fare</u>	
		<u>April 1972</u>	<u>Nov. 1973</u>	<u>Nov. 1974</u>	<u>RMB (yuan)</u>	<u>U.S.\$</u>
1. Chengchow/ Canton	(923)	4	4	4	-	-
2. /Changsha	[451]	4	4(1)	4	98.00	43.12
3. /Kunming	941	-	1	1*	-	-
4. /Lanchow	[542]	-	3	-	-	-
5. /Nanking	(354)	4	3	-	71.00	31.24
6. /Nanyang	[139]	-	6	-	-	-
7. /Peking	(364)	4	5(1)	5	82.00	36.08
8. /Shanghai	[514]	3	3	-	107.00	47.08
9. /Shenyang	[708]	-	1(1)	-	-	-
10. /Sian	(261)	3	4	-	56.00	24.64
11. /Tientsin	[361]	-	1	-	-	-
12. /Wuhan	(289)	4	5 (1)	4	60.00	26.40
13. /Dwiewang	[667]	-	1	-	-	-

*Return trip Kunming to Chengchow has no direct flight

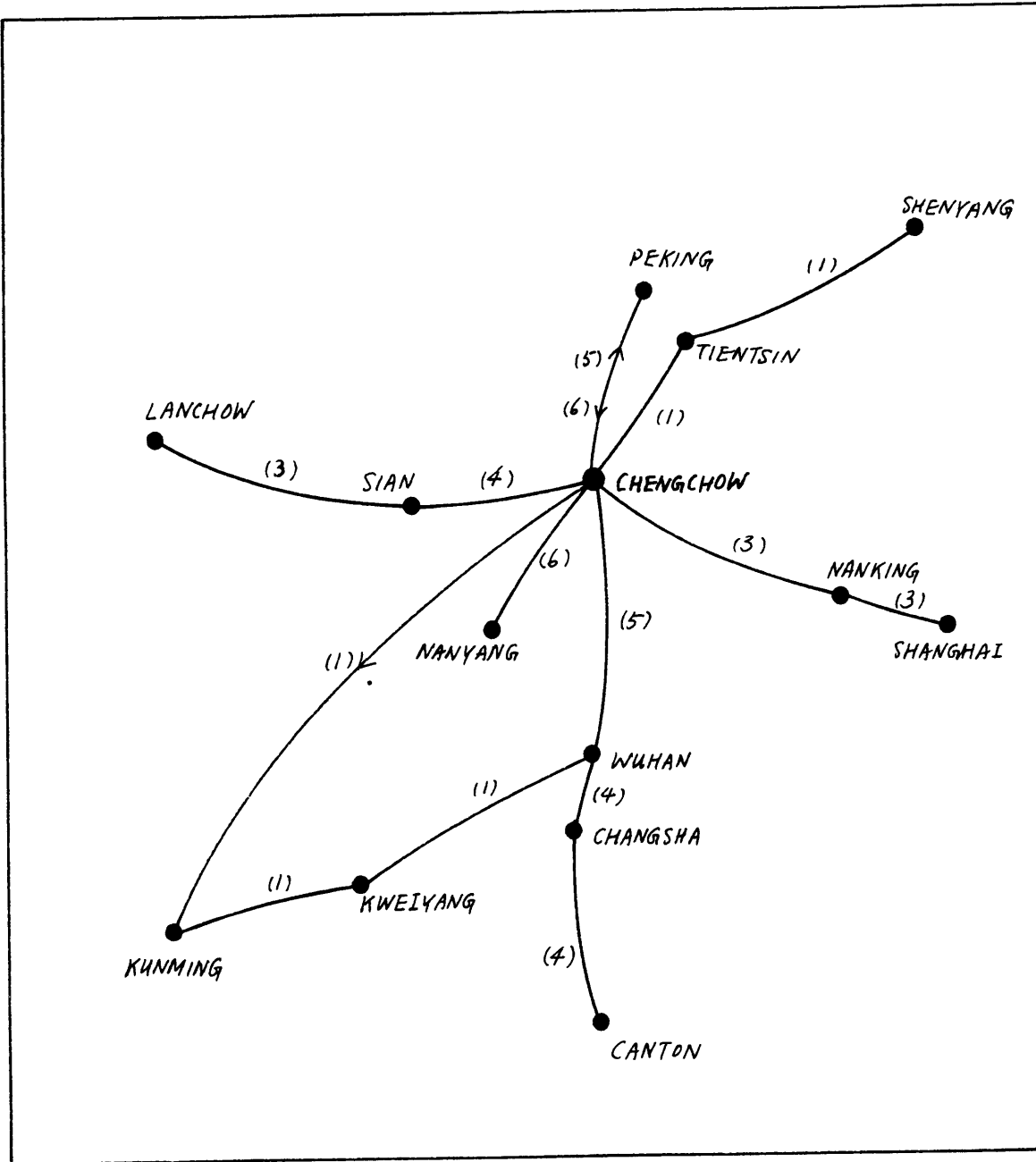


FIGURE 5-4 DIRECT SERVICE NETWORK FOR CHENGCHOW (NOV. 1973)

TABLE 5-15

SUMMARY OF DIRECT SERVICE FORM CHENGTU

<u>From/To</u>	<u>Non-Stop Distance (Miles)</u>	<u>Frequency/week</u>			<u>o/w One Class Fare</u>	
		<u>April 1972</u>	<u>Nov. 1973</u>	<u>Nov. 1974</u>	<u>RMB (yuan)</u>	<u>U.S. \$</u>
1. Chengtu/ Canton	[743]	-	2	-	-	-
2. /Changsha	[556]	-	1	-	-	-
3. /Chungking	[153]	-	12	-	-	-
4. /Kunming	402	-	3	1*	-	-
5. /Kweilin	[528]	-	2	-	-	-
6. /Kweiyang	[368]	-	4	-	-	-
7. /Lanchow	[361]	-	Non Scheduled		-	-
8. /Lhasa	[757]	-	4	-	-	-
9. /Nanchung	[118]	-	7	-	-	-
10. /Nanking	[847]	-	3	-	-	-
11. /Peking	937	-	4(1)	2	226.00	99.44
12. /Shanghai	[1021]	-	3	-	-	-
13. /Shenyang	[1292]	-	1	-	-	-
14. /Sian	[368]	-	4(1)	2**	-	-
15. /Sichang	[215]	-	2	-	-	-
16. / Taiyuan	[688]	-	2	1	-	-
17. /Tahsien	[201]	-	4	-	-	-
18. /Tungjen	[368]	-	2	-	-	-
19. /Wuhan	[604]	-	3	-	-	-

*Return trip Kunming to Chengtu has no direct flight

**Return trip Sian to Chengtu has only 1 direct flight per week

TABLE 5-16

SUMMARY OF DIRECT SERVICE FORM CHUNGKING

<u>From/To</u>	<u>Non-Stop Distance (Miles)</u>	<u>Frequency/week</u>			<u>o/w One Class Fare</u>	
		<u>April 1972</u>	<u>Nov. 1973</u>	<u>Nov. 1974</u>	<u>RMB (Yuan)</u>	<u>U.S.\$</u>
1. Chungking/ Canton	[604]	-	2	-	-	-
2. /Chengtu	[153]	-	12	-	-	-
3. /Kunming	[375]	-	1	-	-	-
4. /Kweilin	[368]		2			
5. /Kweiyang	[229]	-	2	-	-	-
6. /Nanchung	[83]	-	6	-	-	-
7. /Nanking	[729]	-	3	-	-	-
8. /Peking	[889]	-	2	-	-	-
9. /Shanghai	[896]	-	2	-	-	-
10. /Sian	[354]	-	2	-	-	-
11. /Tahsien	[108]	-	3	-	-	-
12. /Wuhan	[472]	-	3	-	-	-

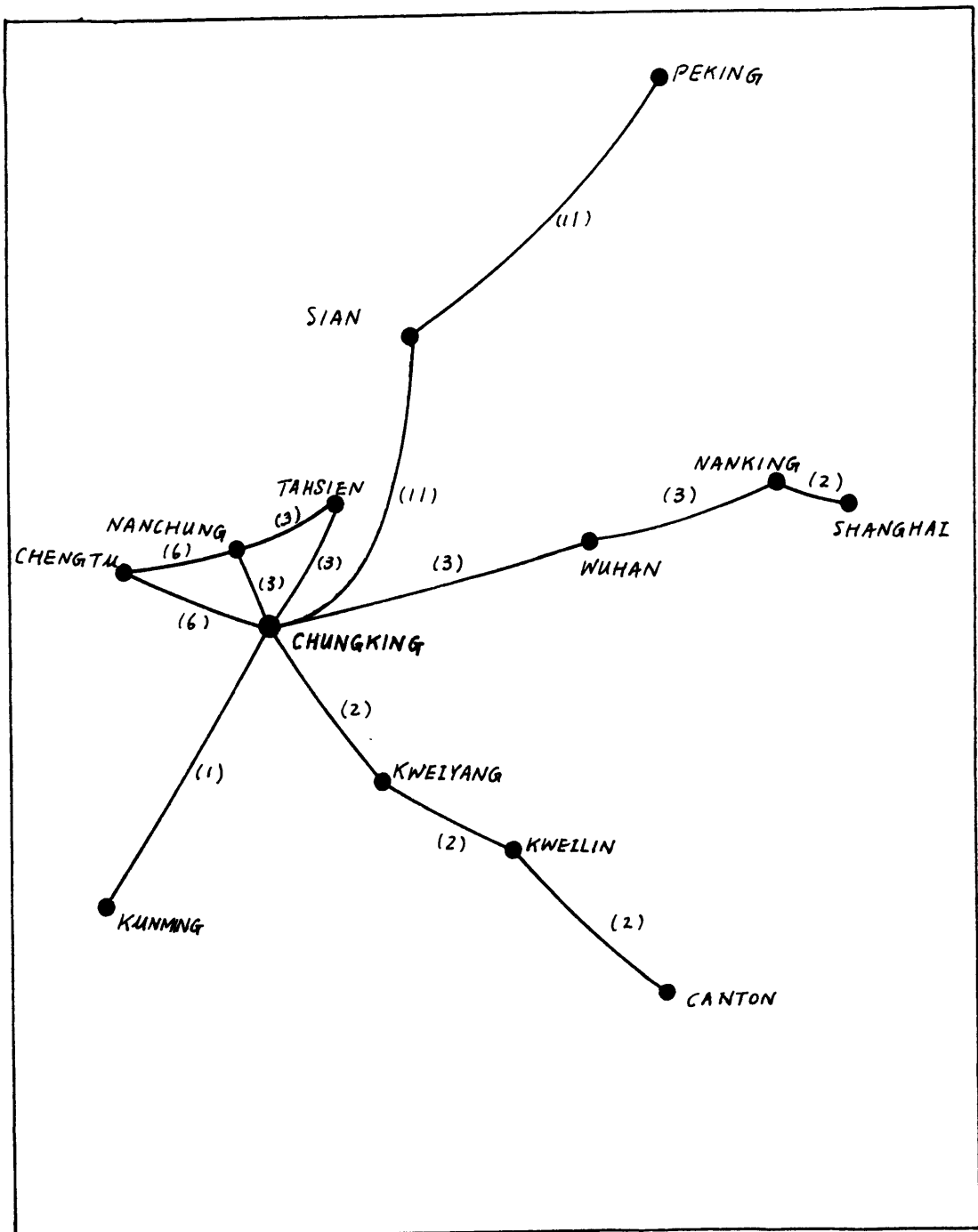


FIGURE 5-6 DIRECT SERVICE NETWORK FOR CHUNGKING (NOV. 1973)

TABLE 5-17

SUMMARY OF DIRECT SERVICE FROM HANGCHOW

<u>From/To</u>	<u>Non-Stop Distance (Miles)</u>	<u>Frequency/Week</u>			<u>o/w One Class Fare</u>	
		<u>April 1972</u>	<u>Nov. 1973</u>	<u>Nov. 1974</u>	<u>RMB (yuan)</u>	<u>U.S. \$</u>
1. Hangchow/ Canton	[618]	5	7	6	135.00	59.40
2. /Changsha	[444]	-	2	-	-	-
3. /Nanchang	286	4	4	6	59.00	25.96
4. /Nanning	898	-	-	-	-	-
5. /Peking	676	1	1	0	150.00	66.00
6. /Shanghai	(97)	6	6	6	20.00	8.80

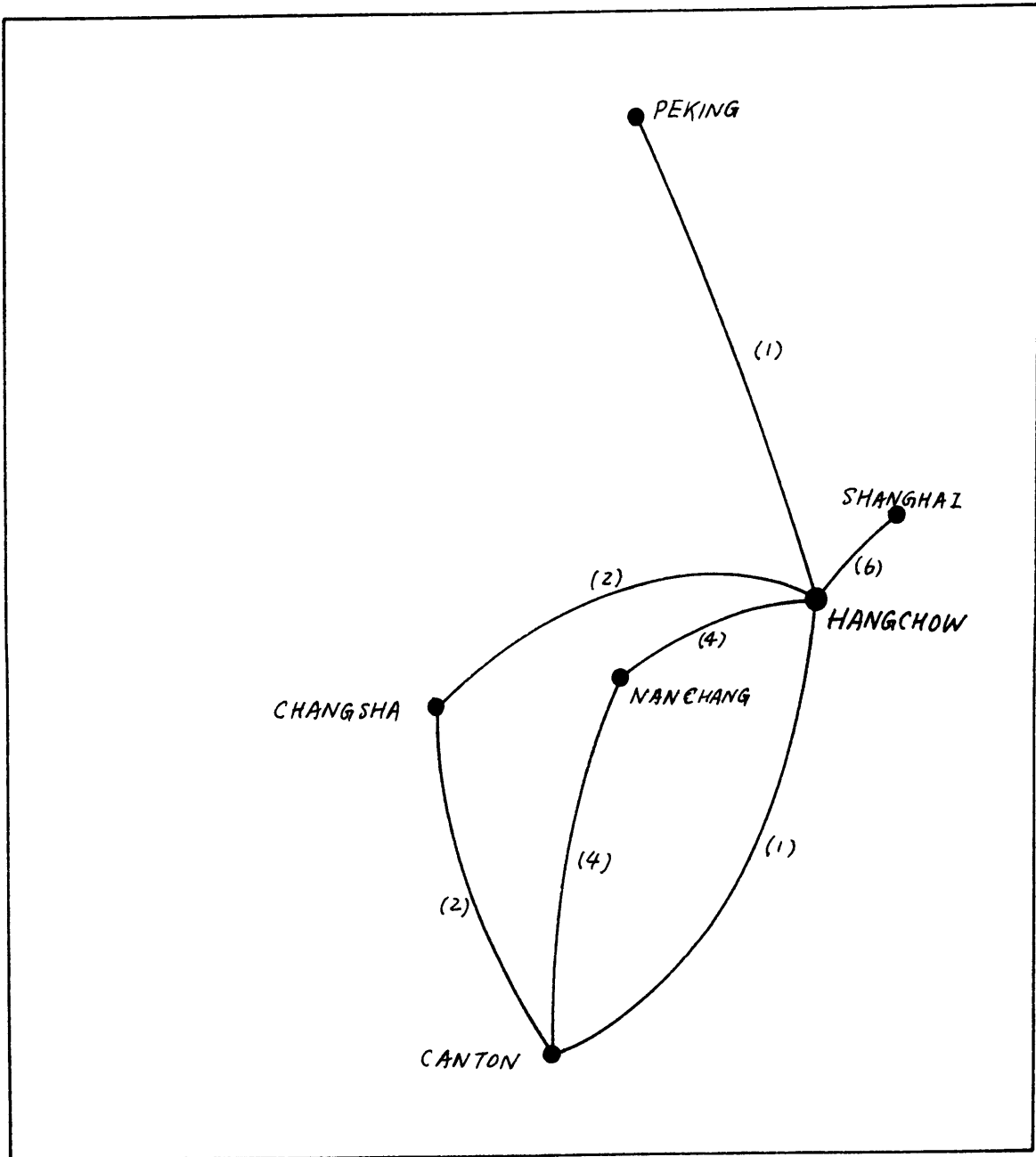


FIGURE 5-7 DIRECT SERVICE NETWORK FOR HANGCHOW (NOV. 1973)

TABLE 5-18

SUMMARY OF DIRECT SERVICE FROM KUNMING

<u>From/To</u>	<u>Non-Stop Distance (Miles)</u>	<u>Frequency/Week</u>			<u>o/w One Class Fare</u>	
		<u>April 1972</u>	<u>Nov. 1973</u>	<u>Nov. 1974</u>	<u>RMB (yuan)</u>	<u>U.S.\$</u>
1. Kunming/ Canton	[680]	2	2	2	163.00	71.72
2. /Changsha	670(724)	1	3	3*	-	-
3. / Chaotung	[160]	-	2	-	-	-
4. /Chengchow	941	-	0	0**	-	-
5. /Chengtu	403	-	0	0***	-	-
6. /Chungking	[375]	-	1	-	-	-
7. /Kwieyang	[319]	-	3	2	-	-
8. /Nanchang	[833]	-	2	2	-	-
9. /Nanning	384(384)	2	2	2	88.00	38.72
10. /Neikiang	[347]	-	1	-	-	-
11. /Paoshan	[215]	-	3	-	-	-
12. /Peking	1293(1279)	1	6	2	309.00	135.96
13. /Rangoon	702(705)	-	1	1	-	-
14. /Shanghai	[1208]	-	2	2	284.00	124.96
15. /Sian	[854]	-	1	-	-	-
16. /Szemao	[189.5]	-	3	-	-	-
17. /Wuhan	[792]	-	1	-	-	-

*Return trip Chengsha to Kunming has 2 direct flights per week

**Return trip Chengchow to Kunming has 1 direct flight per week

***Return trip Chengtu to Kunming has 1 direct flight per week

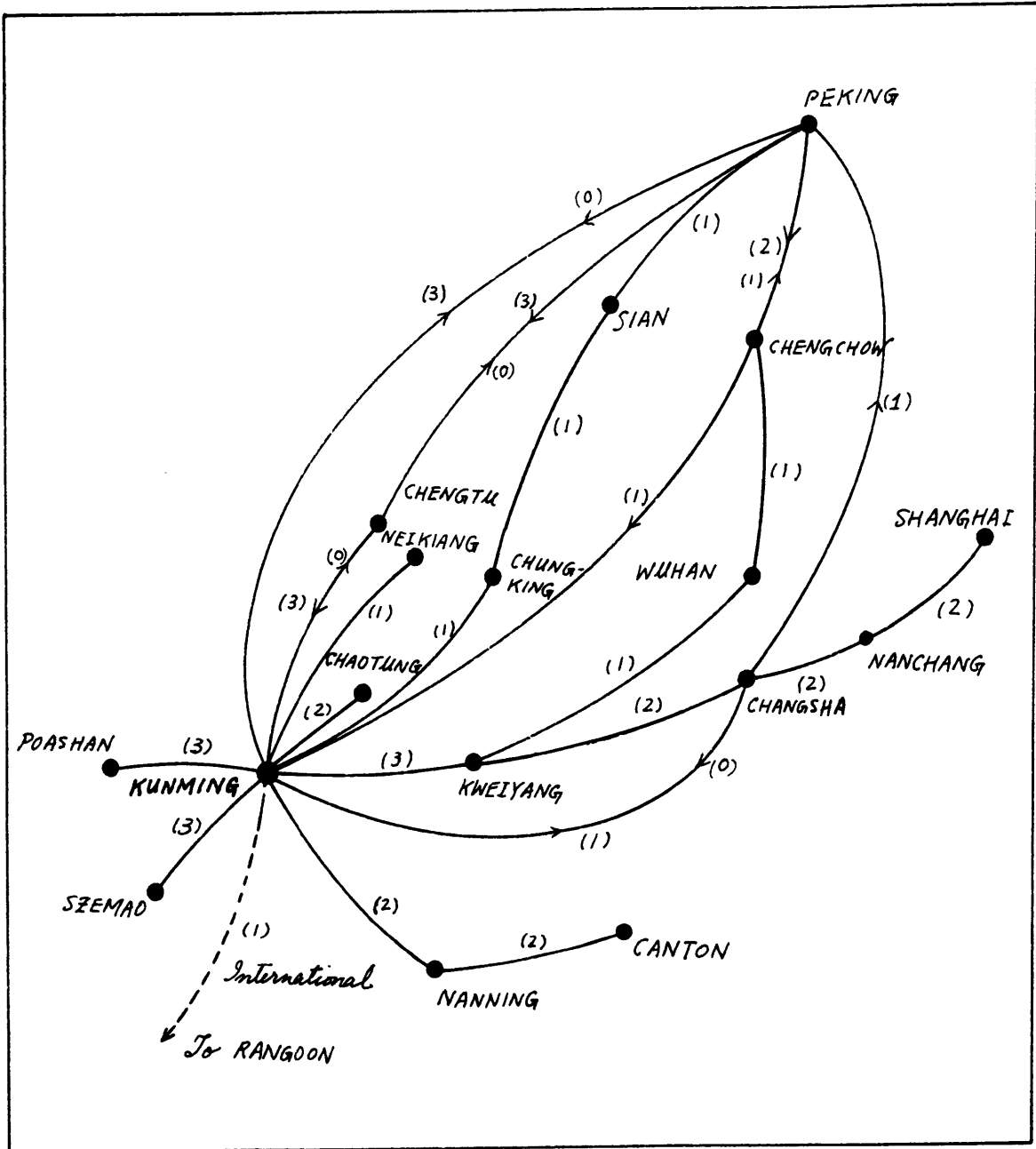


FIGURE 5-8 DIRECT SERVICE NETWORK FOR KUNMING (NOV. 1973)

TABLE 5-19

SUMMARY OF DIRECT SERVICE FROM KWEIYANG

<u>From/To</u>	<u>Non-Stop Distance (Miles)</u>	<u>Frequency/week</u>			<u>0/w One Class Fare</u>	
		<u>April 1972</u>	<u>Nov. 1973</u>	<u>Nov. 1974</u>	<u>RMB (Yuan)</u>	<u>U.S.\$</u>
1. Kweiyang/ Canton	[417]	-	2	-	-	-
2. /Changsha	[354]	-	2	2	-	-
3. /Chengchow	[667]	-	1	-	-	-
4. /Chengtu	[368]	-	4	-	-	-
5. /Chungking	[229]		2			
6. /Kunming	[319]	-	3	2	-	-
7. /Kweilin	[176]		2			
8. /Nanchang	[517]	-	2	2	-	-
9. /Peking	[1042]	-	1	-	-	-
10. /Shanghai	[896]	-	2	2	-	-
11. /Tungjen	[128]		2			
12. /Wuhan	[486]	-	1	-	-	-

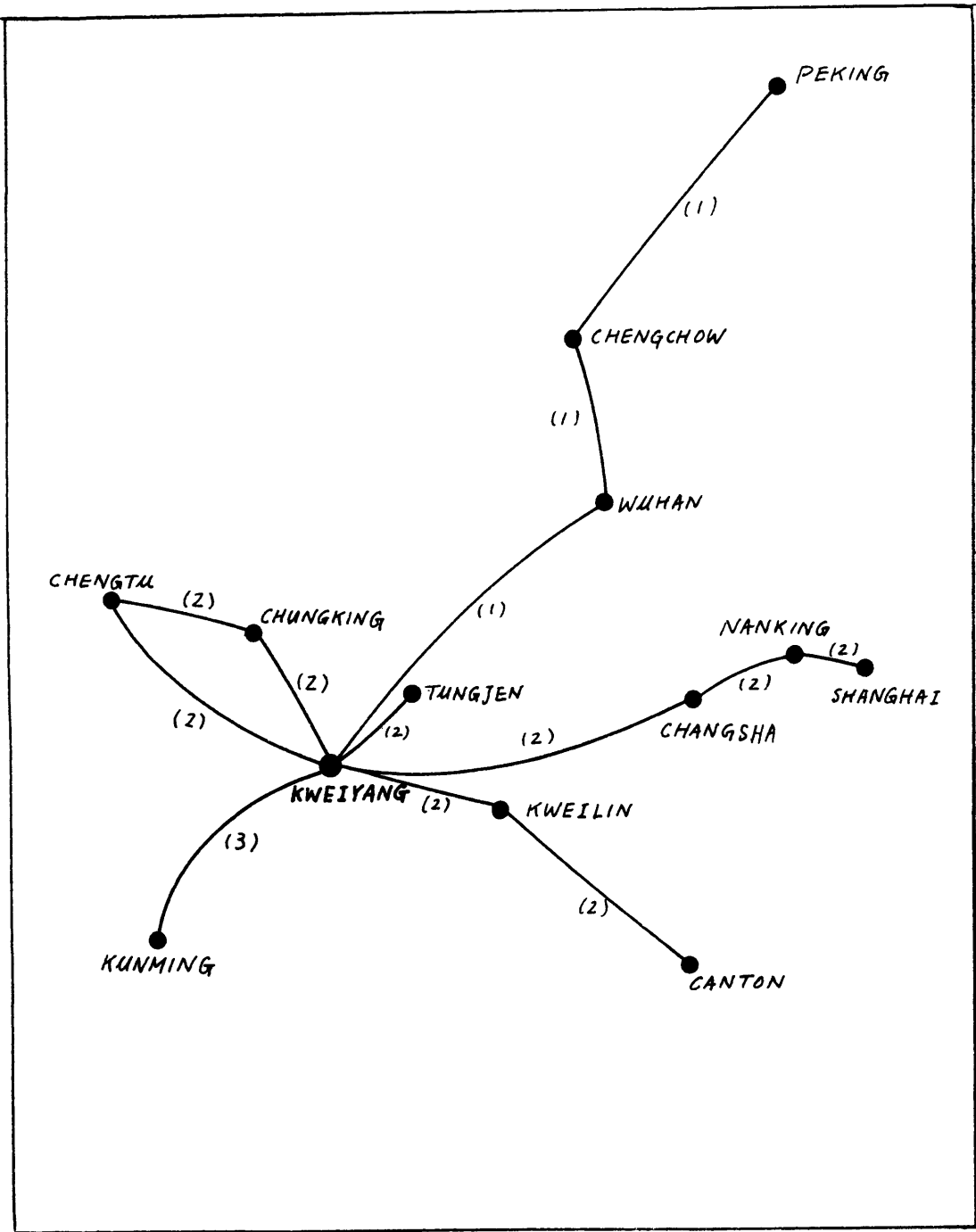


FIGURE 5-9 DIRECT SERVICE NETWORK FOR KWEIYANG (NOV. 1973)

TABLE 5-20

SUMMARY OF DIRECT SERVICE FROM LANCHOW

<u>From/To</u>	<u>Non-Stop Distance (Miles)</u>	<u>Frequency/Week</u>			<u>o/w One Class Fare</u>	
		<u>April 1972</u>	<u>Nov. 1973</u>	<u>Nov. 1974</u>	<u>RMB (yuan)</u>	<u>U.S.\$</u>
1. Lanchow/ Chengchow	[542]	-	3	-	-	-
2. /Chengtu	[361]	-	non scheduled	-	-	-
3. /Chiuchuan	[372]	-	3	-	-	-
4. /Hami	[722]	-	3	-	-	-
5. /Nanking	[882]	-	2	-	-	-
6. /Paotow	[472]	-	1	-	-	-
7. /Peking	[706]	-	5	-	-	-
8. /Shanghai	[1049]	-	2	-	-	-
9. /Shenyang	[1111]	-	1	-	-	-
10. /Sian	[308]	-	7	-	-	-
11. /Sining	[122]	-	4	-	-	-
12. /Taiyuan	[490]	-	3	-	-	-
13. /Tientsin	[750]	-	1	-	-	-
14. /Urumchi	[986]	-	3	-	-	-
15. /Yinchuan	[214]	-	1	-	-	-

[] estimated mileage from Maps

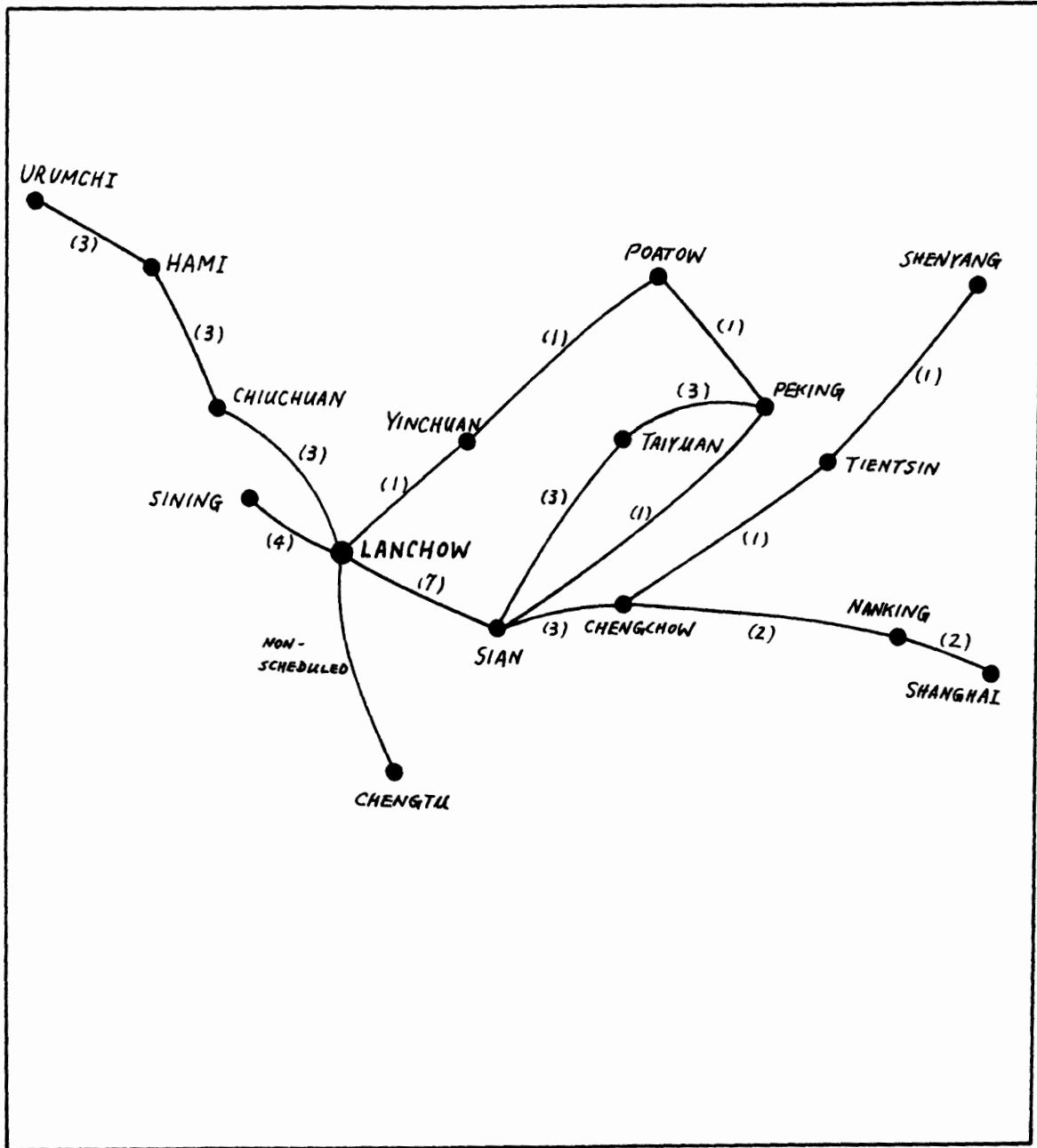


FIGURE 5-10 DIRECT SERVICE NETWORK FOR LANCHOW (NOV. 1973)

TABLE 5-21

SUMMARY OF DIRECT SERVICE FROM NANCHANG

<u>From/To</u>	<u>Non-Stop Distance (Miles)</u>	<u>Frequency/Week</u>			<u>o/w One Class Fare</u>	
		<u>April 1972</u>	<u>Nov. 1973</u>	<u>Nov. 1974</u>	<u>RMB (yuan)</u>	<u>U.S. \$</u>
1. Nanchang/ Canton	414	4	4	6	31.00	35.64
2. /Changsha	181	2	2	2	37.00	16.28
3. /Chian	[111]	-	6	-	-	-
4. /Hangchow	286	4	4	6	59.00	25.96
5. /Kanchow	[188]	-	6	-	-	-
6. /Kingtehchen	[89]	-	3	-	-	-
7. /Kunming	[833]	-	2	-	-	-
8. /Kweiyang	[517]	-	2	2	-	-
9. /Shanghai	370	6	6	8	79.00	34.76

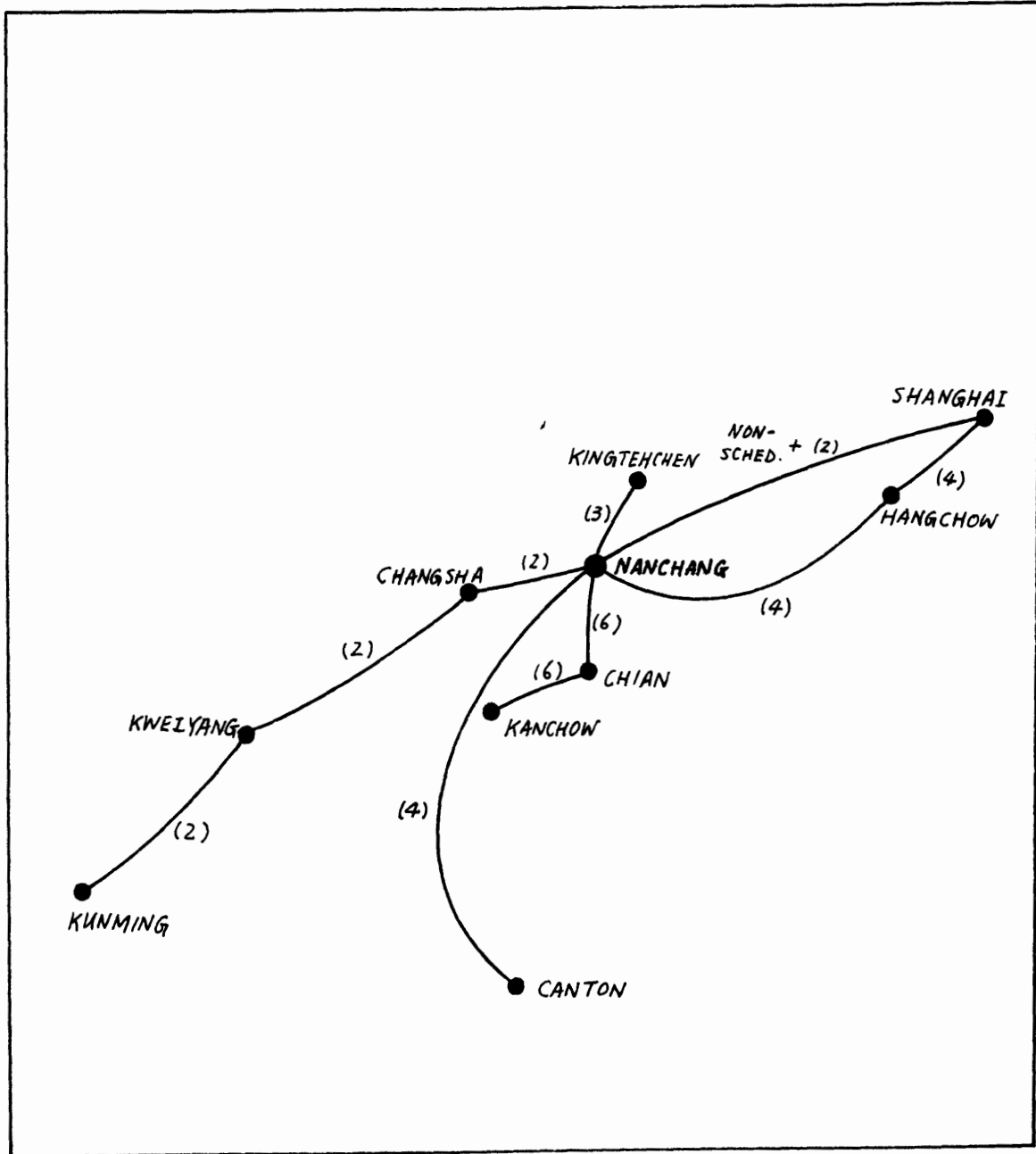


FIGURE 5-11 DIRECT SERVICE NETWORK FOR NANCHANG (NOV. 1973)

TABLE 5-22

SUMMARY OF DIRECT SERVICE FROM NANKING

<u>From/To</u>	<u>Non-Stop Distance (Miles)</u>	<u>Frequency/Week</u>			<u>o/w One Class Fares</u>	
		<u>April 1972</u>	<u>Nov. 1973</u>	<u>Nov. 1974</u>	<u>RMB (yuan)</u>	<u>U.S. \$</u>
1. Nanking/ Canton	[674]	0	0	-	164.00	72.16
2. /Chengchow	(354)	3	3	-	71.00	31.24
3. /Chengtú	[846]	-	3	-	-	-
4. /Chungking	[729]	-	3	-	-	-
5. /Kunming	(1086)	-	0	-	-	-
6. /Lanchow	[882]	-	2	-	-	-
7. /Peking	558(544)	3	3	2	123.00	54.12
8. /Shanghai	158	11	10(1)	5	36.00	15.84
9. /Shenyang	[715]	3(1)	3	-	-	-
10. /Sian	[569]	3	3	-	-	-
11. /Tientsin	[493]	2	3(1)	3	-	-
12. /Tsinan	344(342)	4	4(1)	4	71.00	31.24
13. /Wuhan	(288)	3	3	-	56.82	25.00

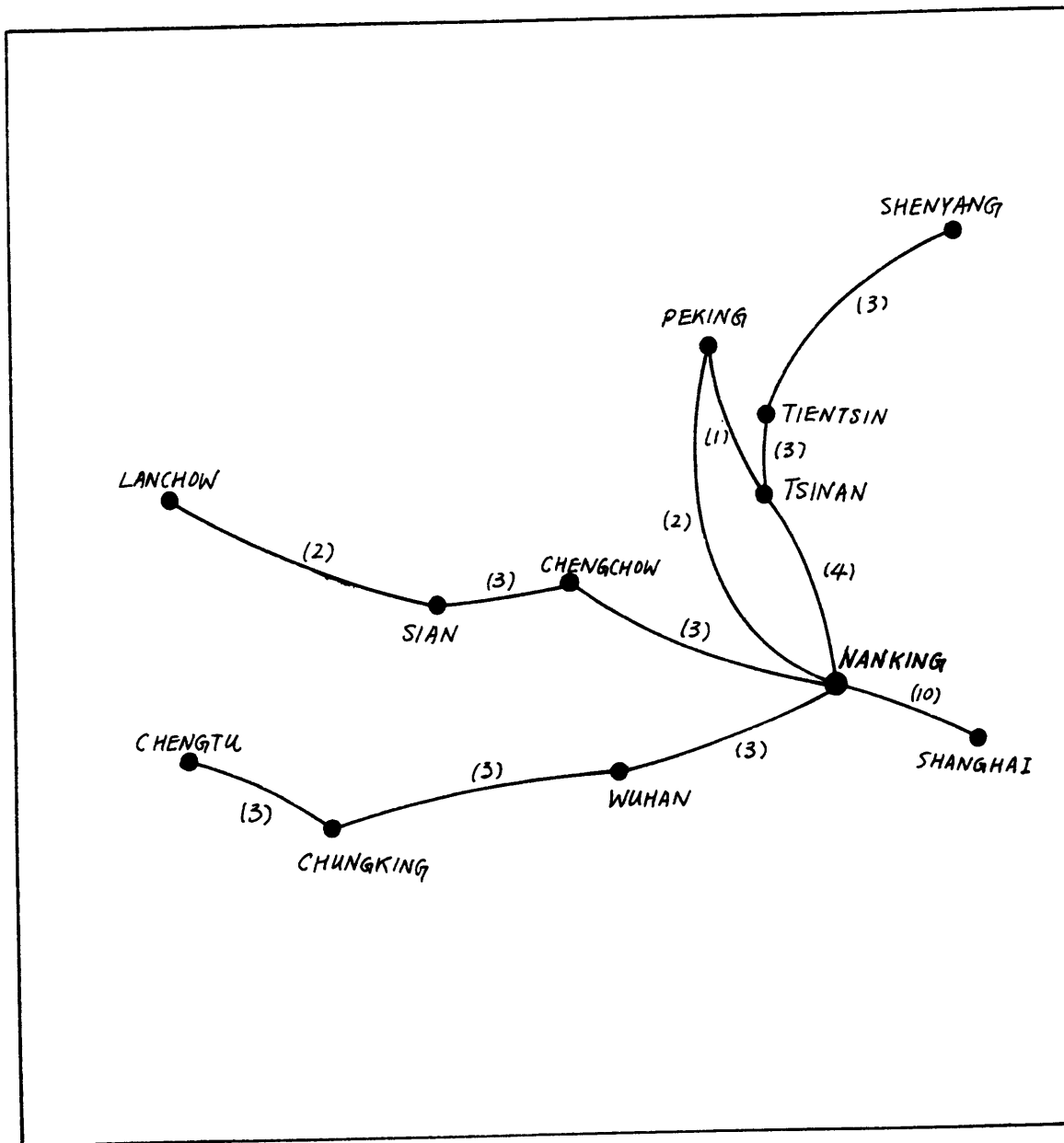


FIGURE 5-12 DIRECT SERVICE NETWORK FOR NANKING (NOV. 1973)

TABLE 5-23

SUMMARY OF DIRECT SERVICE FROM NANNING

<u>From/To</u>	<u>Non-Stop Distance (Miles)</u>	<u>Frequency/Week</u>			<u>o/w One Class Fare</u>	
		<u>April 1972</u>	<u>Nov. 1973</u>	<u>Nov. 1974</u>	<u>RMB (yuan)</u>	<u>U.S. \$</u>
1. Nanning/ Canton	314(339)	4	5	5	75.00	33.00
2. /Changsha	471(510)	-	1	1	100.00	44.00
3. /Hangchow	(898)	-	-	-	-	-
4. /Hanoi (int'l)	200	-	-	2	37.27	16.40
5. /Kunming	384(384)	4	2	2	88.00	38.72
6. /Peking	1265	-	3	3	280.00	123.20

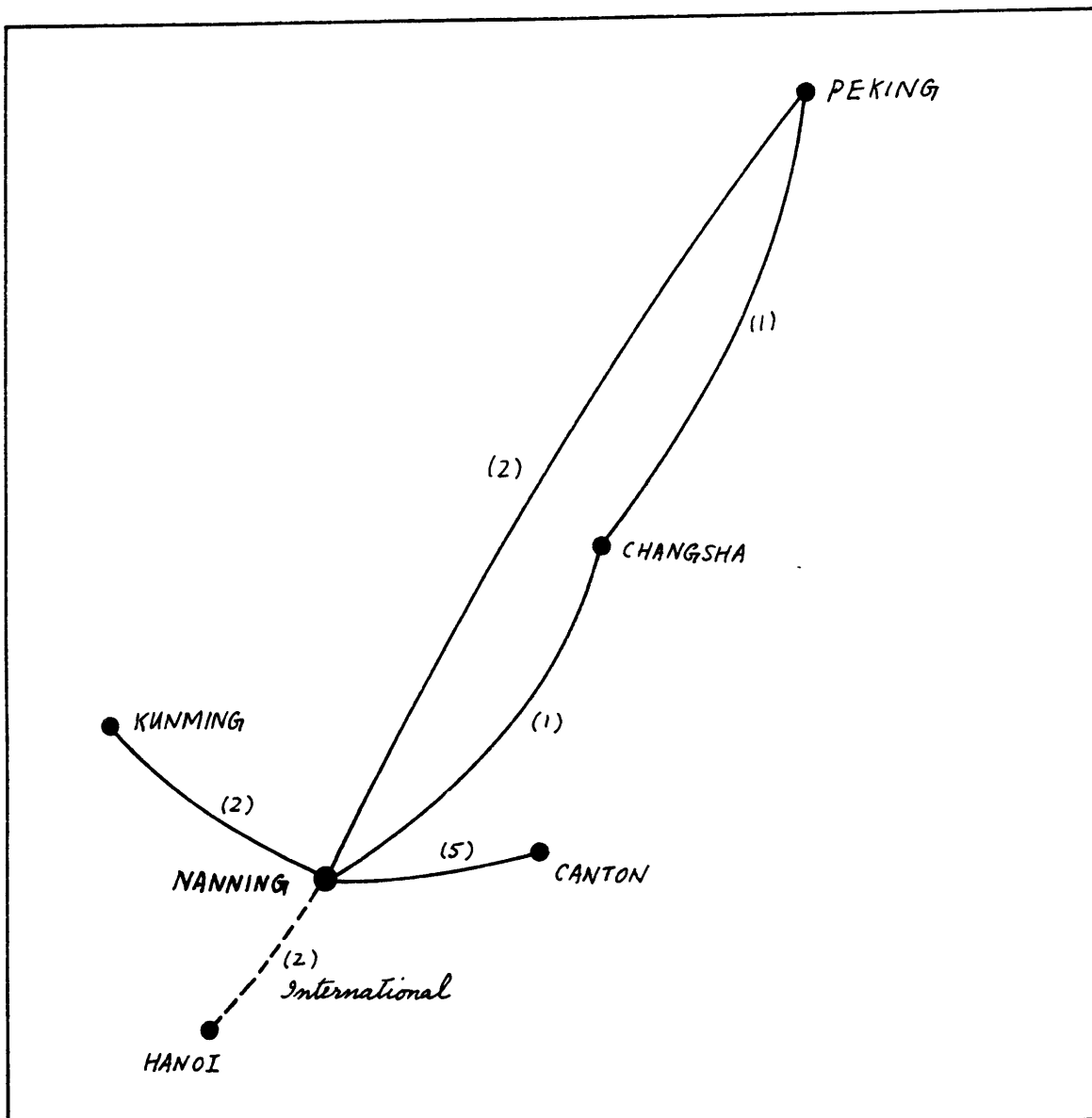


FIGURE 5-13 DIRECT SERVICE NETWORK FOR NANNING (NOV. 1973)

TABLE 5-24

SUMMARY OF DIRECT SERVICE FROM PEKING

<u>From/To</u>	<u>Non-Stop Distance (Miles)</u>	<u>Frequency/Week</u>			<u>o/w One Class Fare</u>	
		<u>April 1972</u>	<u>Nov. 1973</u>	<u>Nov. 1974</u>	<u>RMB (yuan)</u>	<u>U.S. \$</u>
1. Peking/ Canton	1163(1267)	14	15	26	244	107.60
2. /Changchun	[539]	-	6	-	-	-
3. /Changsha	824(799)	2	6(1)	5	179	78.76
4. /Chengchow	(364)	4	6(1)	5	82	36.08
5. /Chengtu	937	-	6(1)	2	226	99.44
6. /Chungking	[889]	-	2	-	-	-
7. /Dalien	[292]	-	1	1	-	-
8. /Hangchow	(676)	1	1	0	150	66.00
9. /Harbin	[669]	-	6	-	-	63.36
10. /Hofei	[569]	-	3	-	-	-
11. /Huhehot	[236]	-	3	-	-	-
12. /Kunming	1293(1279)	4	5	2	309	135.96
13. /Kweiyang	[1042]	-	1	0	-	-
14. /Lanchow	[706]	-	5	-	198	87.12
15. /Nanking	558(544)	3	3	2	123	54.12
16. /Nanning	1265	5	3	3	280	123.20
17. /Paotow	[301]	-	1	-	-	-
18. /Shanghai	(643)	5	11	26	150	66.00
19. /Shenyang	(408)	-	8(2)	8	80	35.20
20. /Sian	(539)	7	11(1)	5	132	58.08
21. /Silinhot	[257]	-	3	-	-	-
22. /Taiyuan	(241)	5	8	4	63	27.72
23. /Tsinan	[229]	2	4	1	52	22.88
24. /Wuhan	[667]	4	5(1)	4	142	62.48
25. /Yenan	[417]	3	3	3	-	-
26. /Yinchuan	[528]	-	1	-	-	-

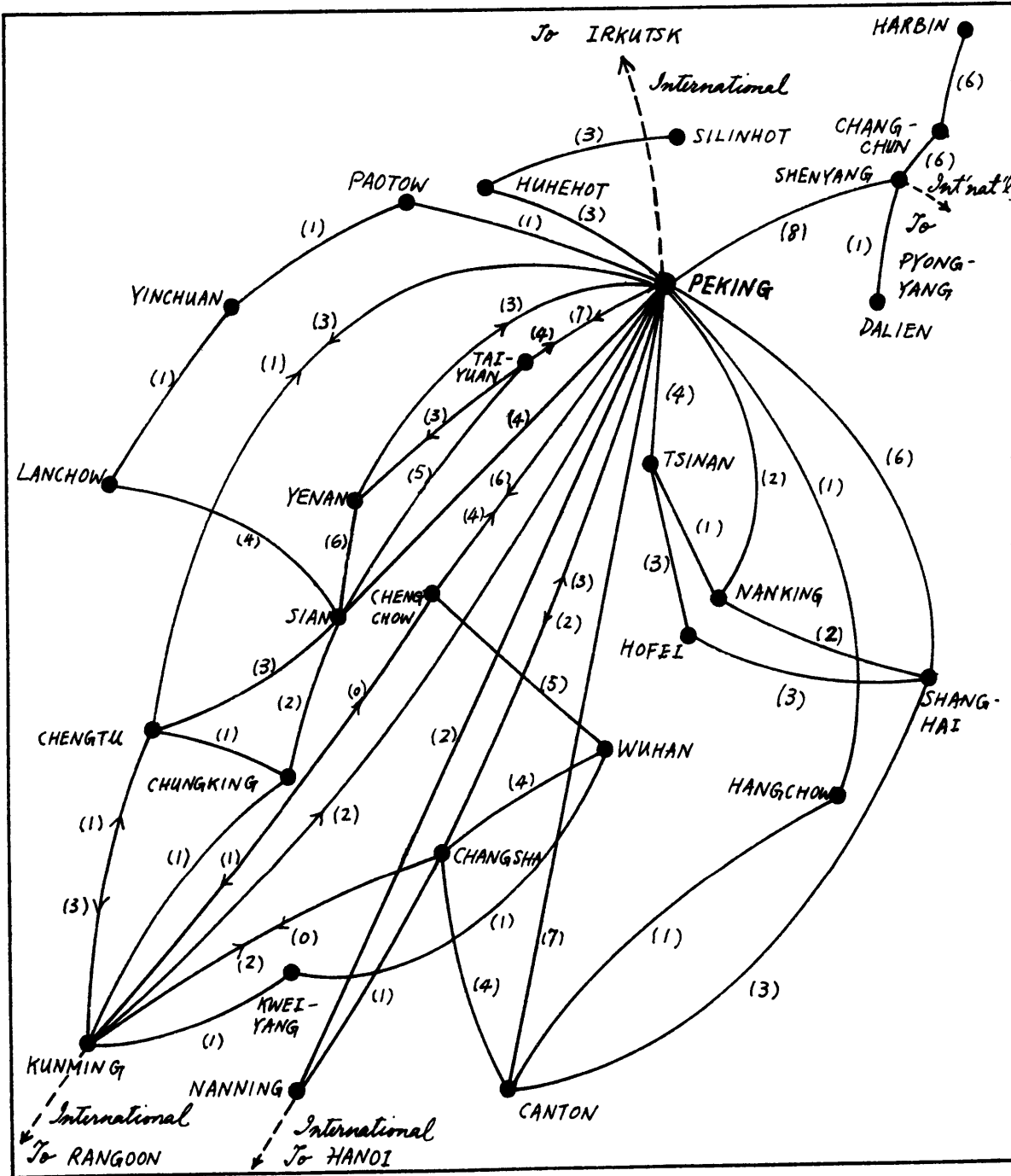


FIGURE 5-14 DIRECT SERVICE NETWORK FOR PEKING (NOV. 1973)

TABLE 5-25

SUMMARY OF DIRECT SERVICE FROM SHANGHAI

<u>From/To</u>	<u>Non-Stop Distance (Miles)</u>	<u>Frequency/Week</u>			<u>o/w One Class Fare</u>	
		<u>April 1972</u>	<u>Nov. 1973</u>	<u>Nov. 1974</u>	<u>RMB (yuan)</u>	<u>U.S. \$</u>
1. Shanghai/ Canton	744	5	9	13	155	68.20
2. /Changsha	[549]	3	5	2	116	51.04
3. /Chengchow	[514]	3	3	-	107	47.08
4. /Chengtuo	[1021]	-	3	-	-	-
5. /Chungking	[896]	-	2	-	-	-
6. /Hangchow	(97)	4	6	6	20	8.80
7. /Hofei	[257]	-	3	-	.51	22.44
8. /Kunming	1208	-	2	2	284	124.96
9. /Kweiyang	[896]	-	2	2	-	-
10. /Lanchow	[1049]	-	2	-	-	-
11. /Nanchang	360	6	6	8	79	34.76
12. /Nanking	158	11	10(1)	5	36	15.84
13. /Peking	[674]	3	11	16	150	66.00
14. /Shenyang	[736]	-	3	3	225	99.00
15. /Sian	[757]	3	3	-	164	72.16
16. /Tientsin	[590]	2	3(1)	3	142	62.48
17. /Tsinan	[458]	4	7(1)	4	105	46.20
18. /Wuhan	[431]	3	2	-	88	38.72

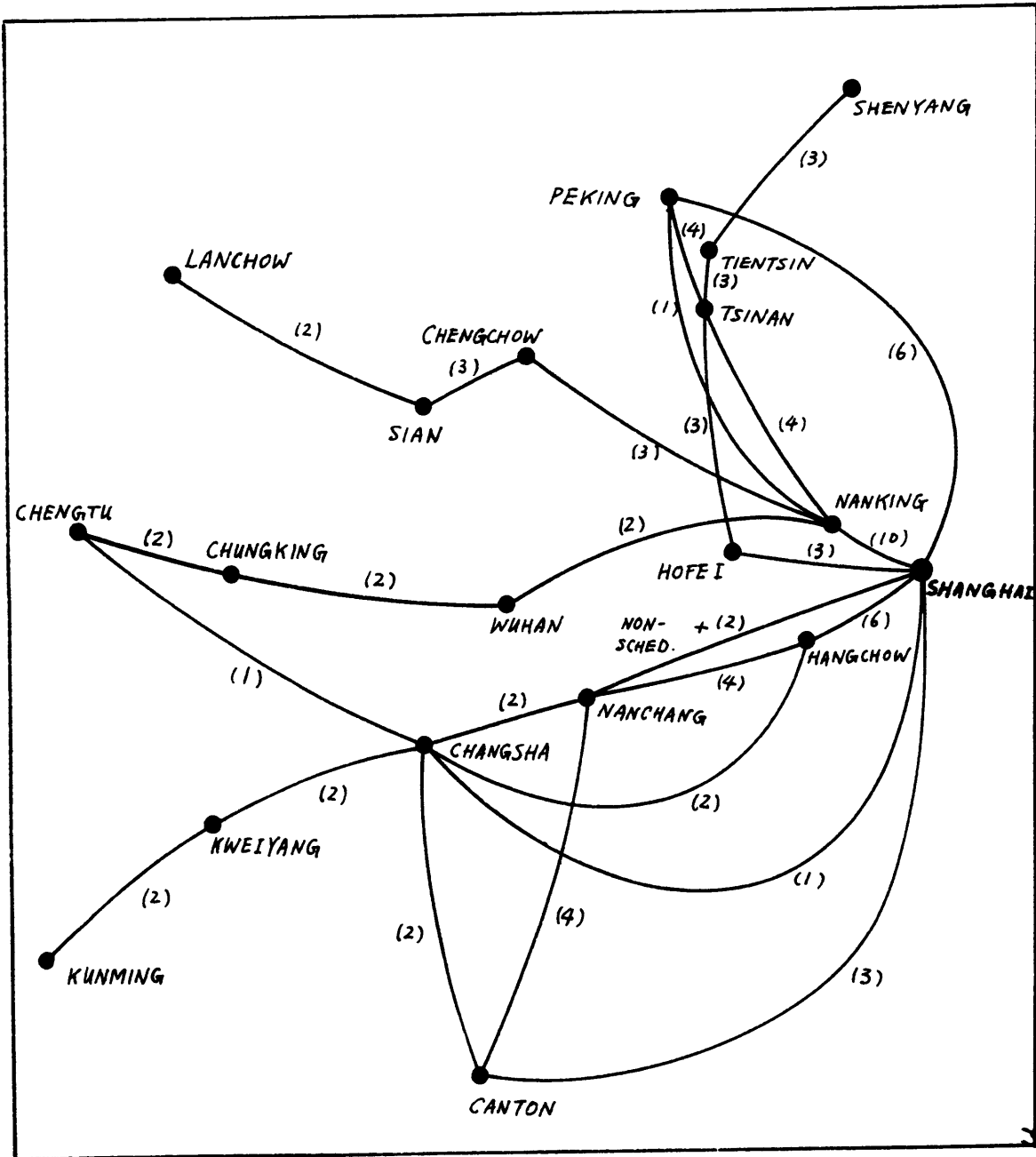


FIGURE 5-15 DIRECT SERVICE NETWORK FOR SHANGHAI (NOV. 1973)

TABLE 5-26

SUMMARY OF DIRECT SERVICE FROM SHENYANG

<u>From/To</u>	<u>Non-Stop Distance (Miles)</u>	<u>Frequency/Week</u>			<u>o/w One Class Fare</u>	
		<u>April 1972</u>	<u>Nov. 1973</u>	<u>Nov. 1974</u>	<u>RMB (yuan)</u>	<u>U.S. \$</u>
1. Shenyang/ Changchung	[181]	-	9	-	35.00	15.40
2. /Changoha	[1104]	-	(1)	-	-	-
3. /Chengchow	[708]	-	1(1)	-	-	-
4. /Chengtu	[1292]	-	1	-	-	-
5. /Dalien	[222]	-	2	1	-	-
6. /Harbin	[319]	-	9	-	-	-
7. /Kiamusze	[500]	-	3	-	-	-
8. /Lanchow	[1111]	-	1	-	-	-
9. /Nanking	[715]	-	3(1)	3	-	-
10. /Peking	(408)	-	9(2)	8	80.00	35.20
11. /Pyongyang	223(213)	-	1	1	-	-
12. /Shanghai	[736]	-	3(1)	3	225.00	99.00
13. /Sian	[924]	-	2	-	-	-
14. /Taiyuan	[611]	-	1	-	-	-
15. /Tientsin	[361]	-	4(1)	3	83.00	36.52
16. /Tsinan	[486]	-	3(1)	3	-	-
17. /Wuhan	[924]	-	(1)	-	-	-

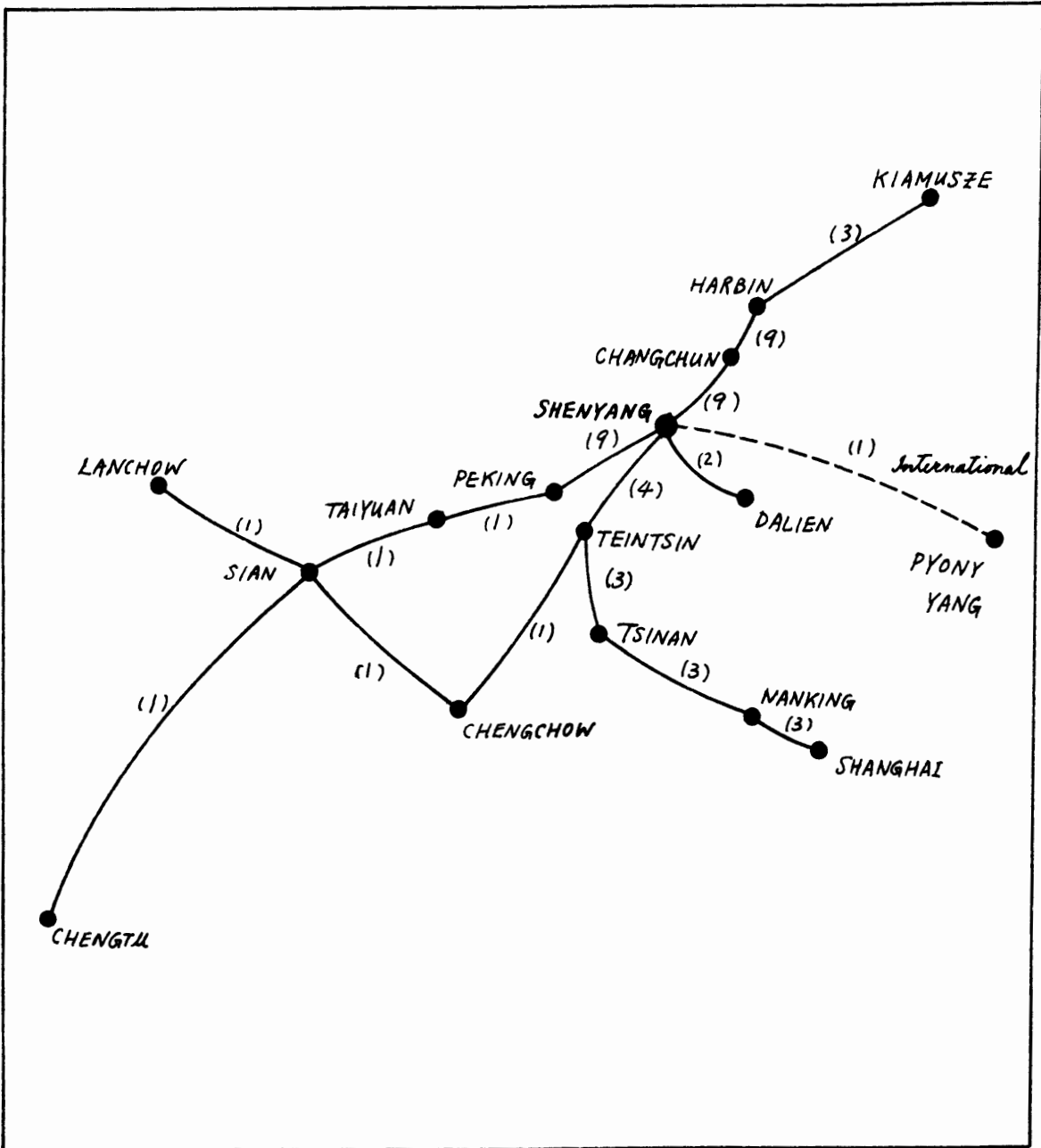


FIGURE 5-16 DIRECT SERVICE NETWORK FOR SHENYANG (NOV. 1973)

TABLE 5-27

SUMMARY OF DIRECT SERVICE FROM SIAN

<u>From/To</u>	<u>Non-Stop Distance (Miles)</u>	<u>Frequency/Week</u>			<u>o/w One Class Fare</u>	
		<u>April 1972</u>	<u>Nov. 1973</u>	<u>Nov. 1974</u>	<u>RMB (yuan)</u>	<u>U.S. \$</u>
1. Sian/ Ankang	[111]	-	5	-	-	-
2. /Chengchow	(261)	3	4	-	56.00	24.64
3. /Chengtu	[372]	-	4(1)	1*	-	-
4. /Chungking	[354]	-	2	-	-	-
5. /Kunming	[854]	-	1	-	-	-
6. /Lanchow	[308]	-	7	-	-	-
7. /Nanking	[572]	3	3	-	-	-
8. /Peking	(539)	4	11(1)	5	132.00	53.08
9. /Shanghai	[757]	3	3	-	164.00	72.16
10. /Shenyang	[924]	-	2	-	-	-
11. /Taiyuan	[319]	1	5	1**	69.00	30.36
12. /Tientsin	[556]	-	1	-	-	-
13. /Yenan	[174]	3	6	3	39.00	17.16
14. /Yulin	[284]	-	2	-	-	-

*The return trip Chengtu to Sian has 2 direct flights per week

**The return trip to Taiyuan to Sian has 4 direct flights per week

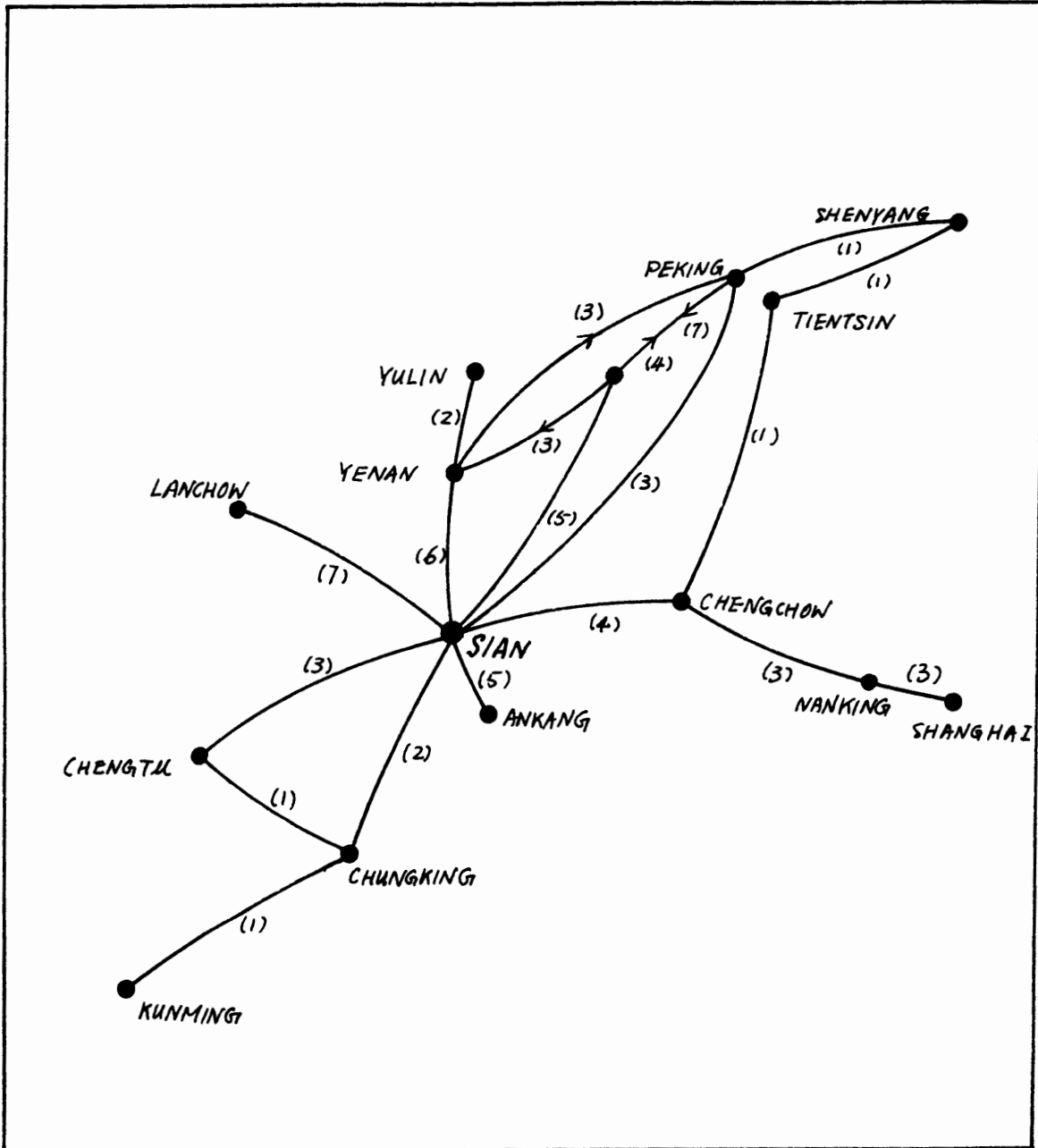


FIGURE 5-17 DIRECT SERVICE NETWORK FOR SIAN (NOV. 1973)

TABLE 5-28

SUMMARY OF DIRECT SERVICE FROM TAIYUAN

<u>From/To</u>	<u>Non-Stop Distance (Miles)</u>	<u>Frequency/Week</u>			<u>o/w One Class Fare</u>	
		<u>April 1972</u>	<u>Nov. 1973</u>	<u>Nov. 1974</u>	<u>RMB (yuan)</u>	<u>U.S. \$</u>
1. Taiyuan/ Changchih	[126]	-	3	-	-	-
2. /Chengtu	[681]	-	2	1	-	-
3. /Peking	(241)	2	4	1*	63.00	27.72
4. /Shenyang	[611]	-	1	-	-	-
5. /Sian	[319]	3	8	4**	69.00	30.36
6. /Tatung	[161]	-	2	-	-	-
7. /Yenan	(186)	-	3	3***	-	-
8. /Lanchow	[490	-	3	-	-	-

*Return trip Peking to Taiyuan has 4 direct flights per week

**Return trip Siam to Taiyuan has 1 direct flight per week

***Return trip Yenan to Taiyuan has no direct flights

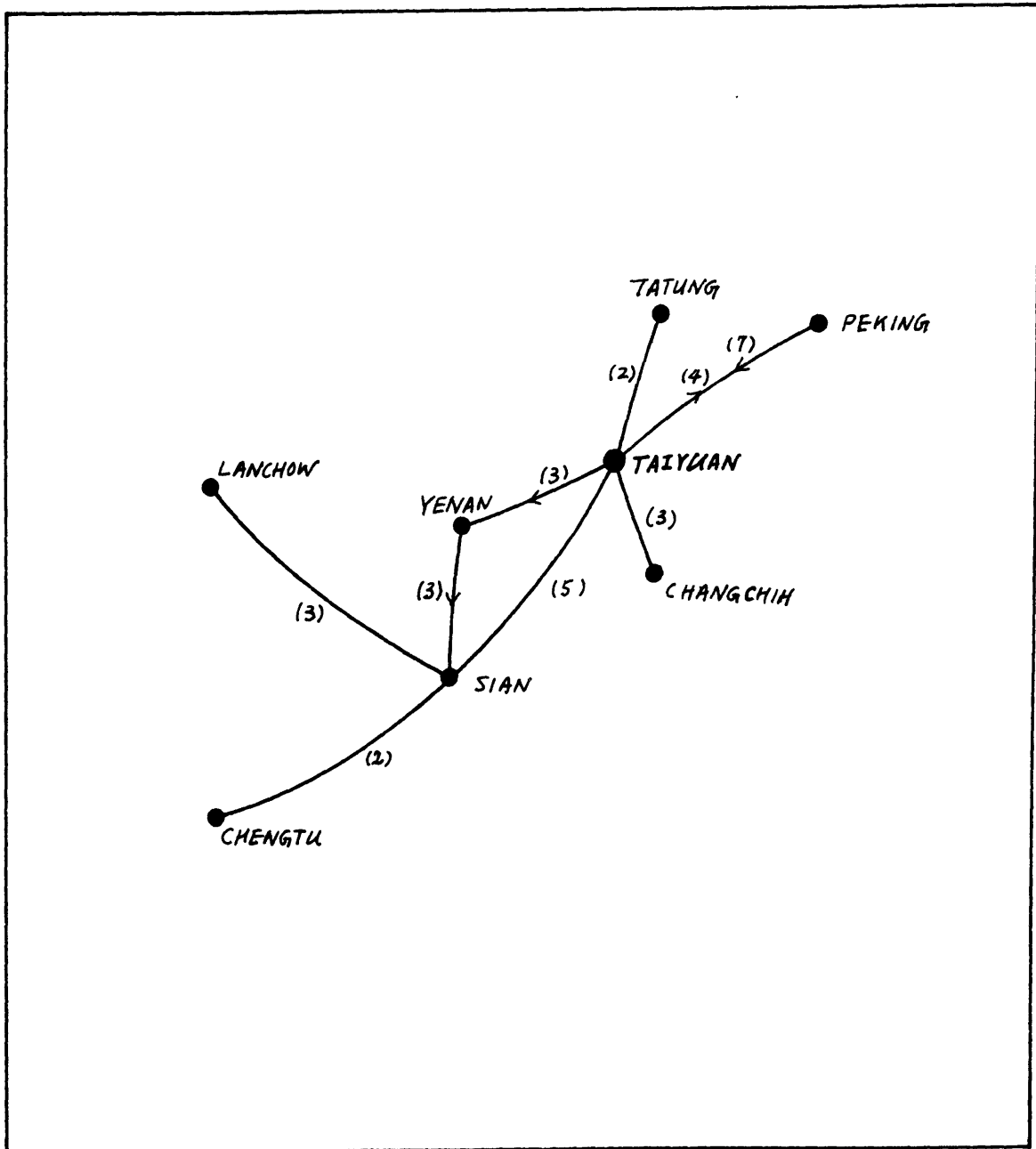


FIGURE 5-18 DIRECT SERVICE NETWORK FOR TAIYUAN (NOV. 1973)

TABLE 5-29

SUMMARY OF DIRECT SERVICE FROM TIENTSIN

<u>From/To</u>	<u>Non-Stop Distance (Miles)</u>	<u>Frequency/Week</u>			<u>o/w One Class Fare</u>	
		<u>April 1972</u>	<u>Nov. 1973</u>	<u>Nov. 1974</u>	<u>RMB (yuan)</u>	<u>U.S. \$</u>
1. Tientsin/ Chengchow	[361]	-	1	-	-	-
2. /Lanchow	[750]	-	1	-	-	-
3. /Nanking	[493]	2	3(1)	3	-	-
4. /Peking	[86]	2	-	-	-	-
5. /Shanghai	[590]	-	3(1)	3	142.00	62.48
6. /Shenyang	[361]	-	4(1)	3	83.00	36.52
7. /Sian	[556]	-	1	-	-	-
8. /Tsinan	(181)	2	3(1)	3	35.00	15.40

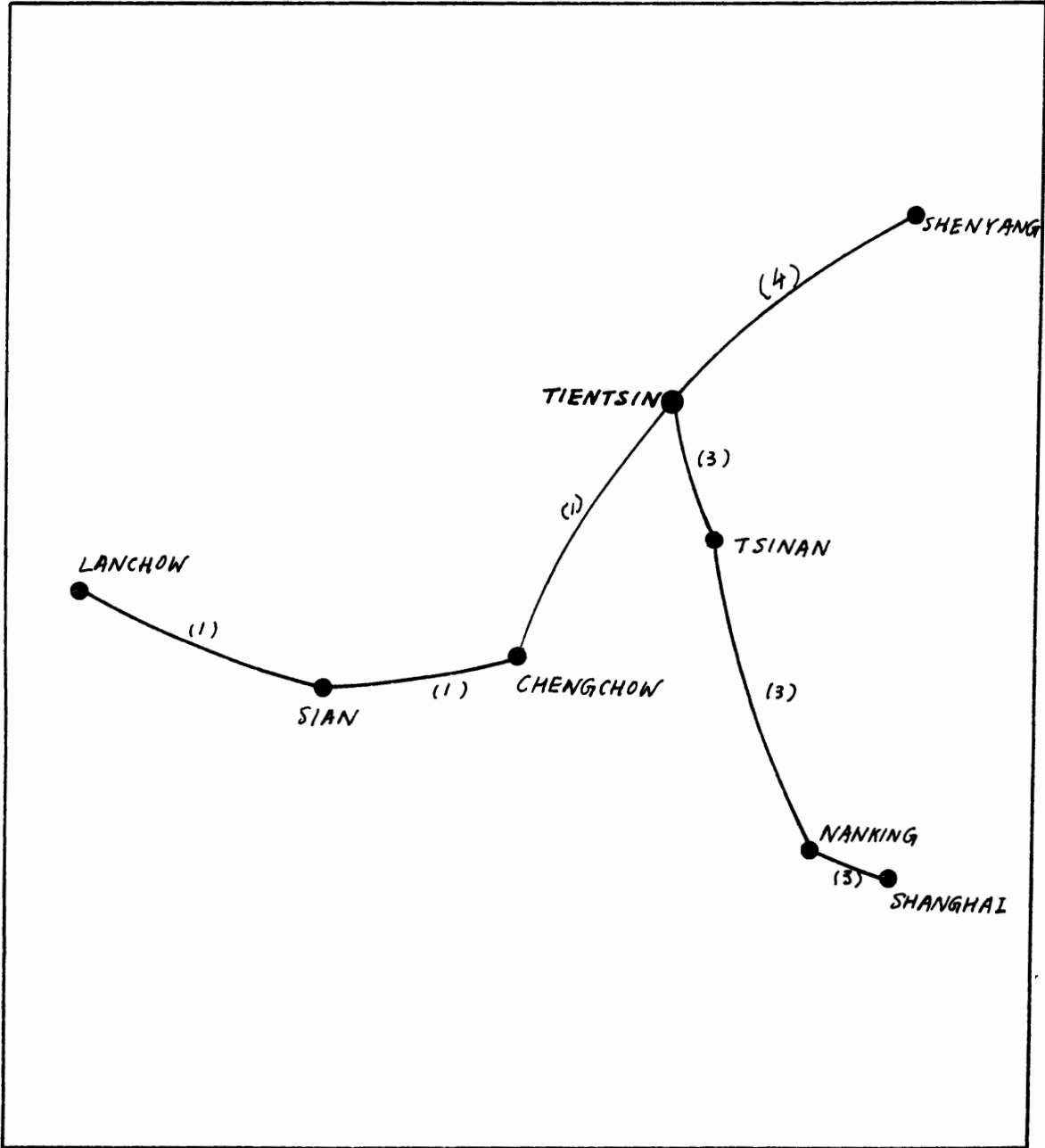


FIGURE 5-19 DIRECT SERVICE NETWORK FOR TIENTSIN (NOV. 1973)

TABLE 5-30

SUMMARY OF DIRECT SERVICE FROM TSINAN

<u>From/To</u>	<u>Non-Stop Distance (Miles)</u>	<u>Frequency/Week</u>			<u>o/w One Class Fare</u>	
		<u>April 1972</u>	<u>Nov. 1973</u>	<u>Nov. 1974</u>	<u>RMB (yuan)</u>	<u>U.S. \$</u>
1. Tsinan/ Hofei	[340]	-	3	-	-	-
2. /Lini	[137]	-	3	-	-	-
3. /Nanking	344(342)	5	4(1)	4	71.00	31.24
4. /Peking	(204)	2	4	1	52.00	22.88
5. /Shanghai	[451]	5	7(1)	4	105.00	46.20
6. /Shenyang	[486]	-	3(1)	3	-	-
7. /Tientsin	(181)	2	3(1)	3	35.00	15.40

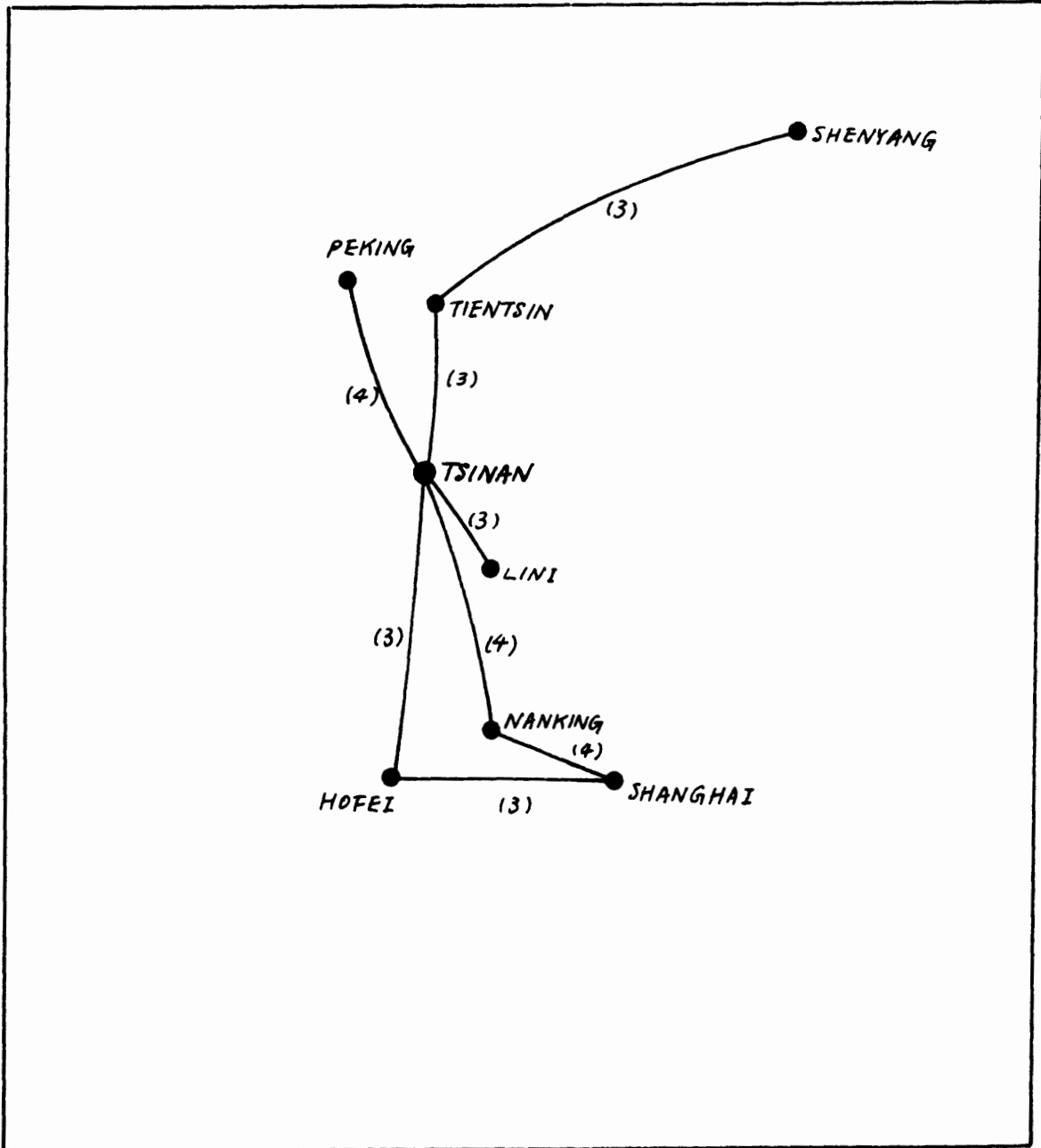


FIGURE 5-20 DIRECT SERVICE NETWORK FOR TSINAN (NOV. 1973)

TABLE 5-31

SUMMARY OF DIRECT SERVICE FROM URUMCHI

<u>From/To</u>	<u>Non-Stop Distance (Miles)</u>	<u>Frequency/Week</u>			<u>o/w One Class Fare</u>	
		<u>April 1972</u>	<u>Nov. 1973</u>	<u>Nov. 1974</u>	<u>RMB (yuan)</u>	<u>U.S. \$</u>
1. Urumchi/ Akosu	[403]	-	4	-	-	-
2. /Altai	[285]	-	3	-	-	-
3. /Chiuchuan	[625]	-	3	-	-	-
4. /Fuwen	[274]	-	3	-	-	-
5. /Hami	[288]	-	3	-	-	-
6. /Hotien	[600]	-	2	-	-	-
7. /Ining	[313]	-	2	-	-	-
8. /Karamai	[188]	-	1	-	-	-
9. /Kashgar	[660]	-	2	-	-	-
10. /Kurla	[160]	-	4	-	-	-
11. /Kutcha	[292]	-	4	-	-	-
12. /Lanchow	[986]	-	3	-	-	-

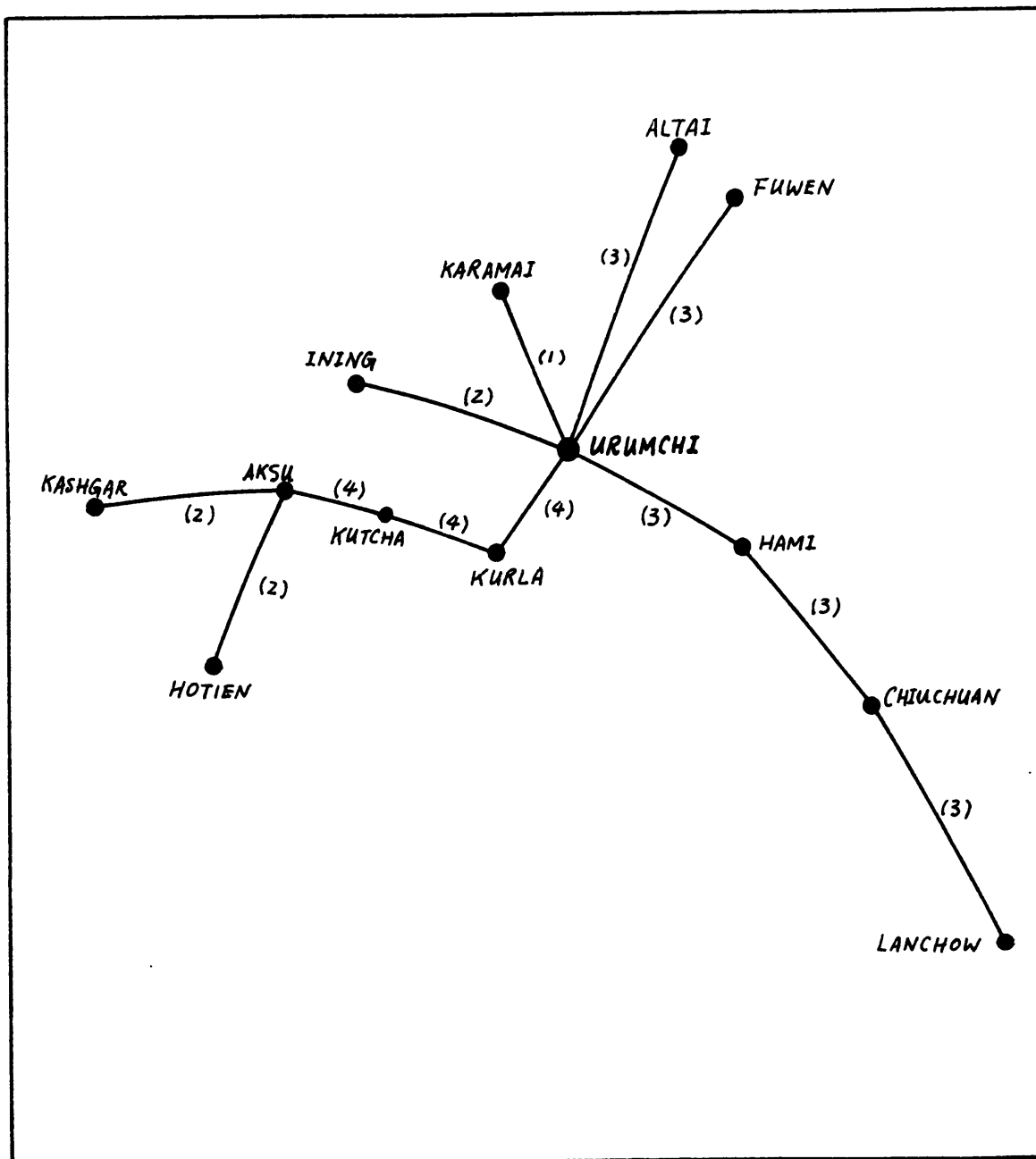


FIGURE 5-21 DIRECT SERVICE NETWORK FOR URUMCHI (NOV. 1973)

TABLE 5-32

SUMMARY OF DIRECT SERVICE FROM WUHAN

<u>From/To</u>	<u>Non-Stop Distance (Miles)</u>	<u>Frequency/Week</u>			<u>o/w One Class Fare</u>	
		<u>April 1972</u>	<u>Nov. 1973</u>	<u>Nov. 1974</u>	<u>RMB (yuan)</u>	<u>U.S. \$</u>
1. Wuhan/ Canton	[486]	4	4	4	106.00	46.64
2. /Changsha	(168)	4	4(1)	4	38.00	16.82
3. /Chengchow	(289)	4	5(1)	4	60.00	26.40
4. /Chengtuo	[604]	-	3	-	-	-
5. /Chungking	[472]	-	3	-	-	-
6. /Kunming	[792]	-	1	-	-	-
7. /Kweiyang	[486]	-	1	-	-	-
8. /Nanking	(288)	3	3	-	-	-
9. /Peking	[667]	4	5(1)	4	142.00	62.48
10. /Shanghai	[431]	3	2	-	88.00	38.72
11. /Shenyang	[924]	-	(1)	-	-	-
12. /Ichang	[156]	-	6	-	-	-
13. /Enshih	[278]	-	6	-	-	-

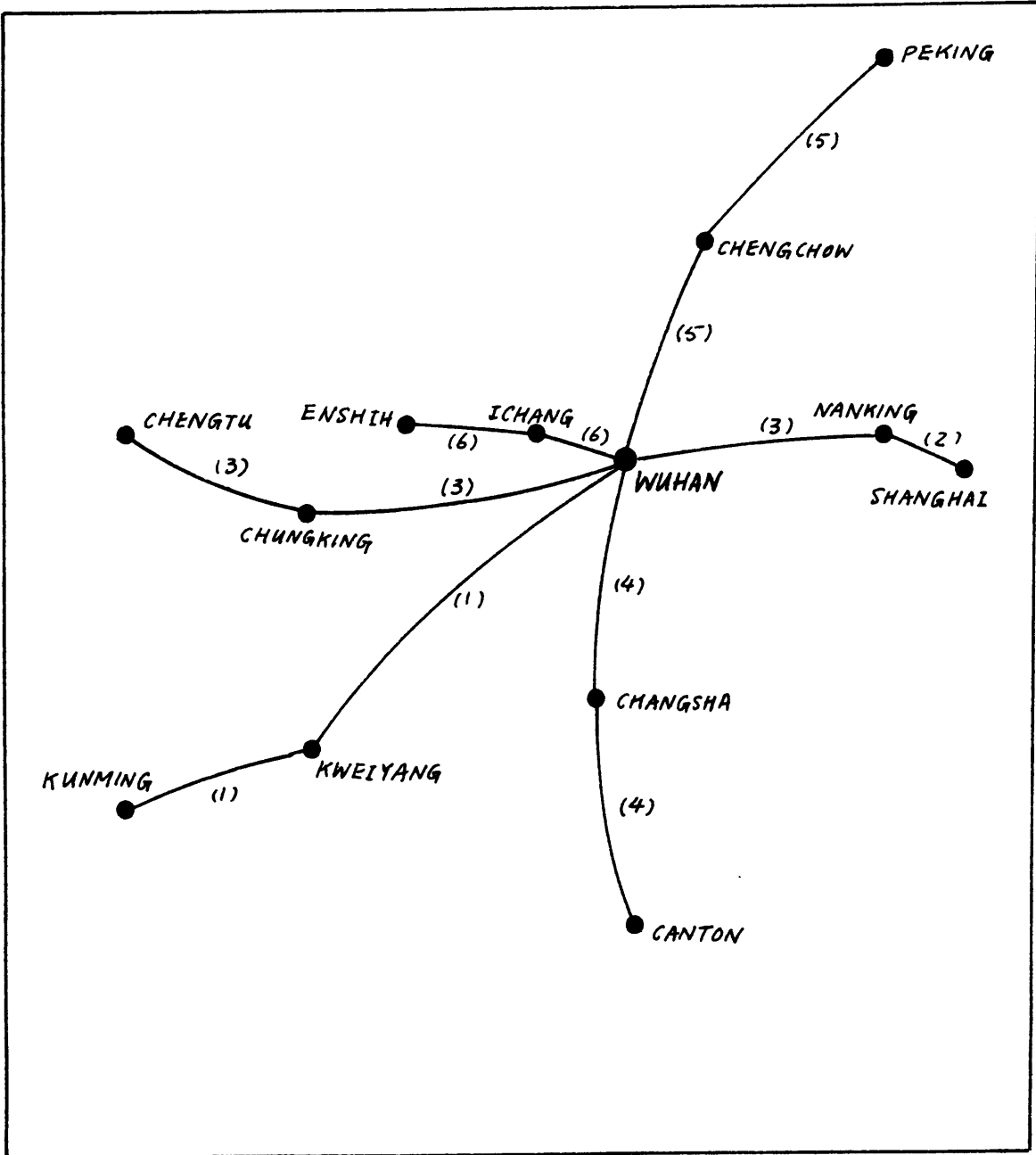


FIGURE 5-22 DIRECT SERVICE NETWORK FOR WUHAN (NOV. 1973)

TABLE 5-33

SUMMARY OF DIRECT SERVICE FROM YENAN

<u>From/To</u>	<u>Non-Stop Distance (Miles)</u>	<u>Frequency/Week</u>			<u>o/w One Class Fare</u>	
		<u>April 1972</u>	<u>Nov. 1973</u>	<u>Nov. 1974</u>	<u>RMB (yuan)</u>	<u>U.S. \$</u>
1. Yenán/ Peking	[417]	2	3	3	-	-
2. /Sian	[174]	3	6	3	39.00	17.16
3. /Taiyuan	(186)	0	0	0*	-	-
4. /Yulin	[108]	-	2	-	-	-

*Return trip Taiyuan to Yenán has 3 direct flights per week

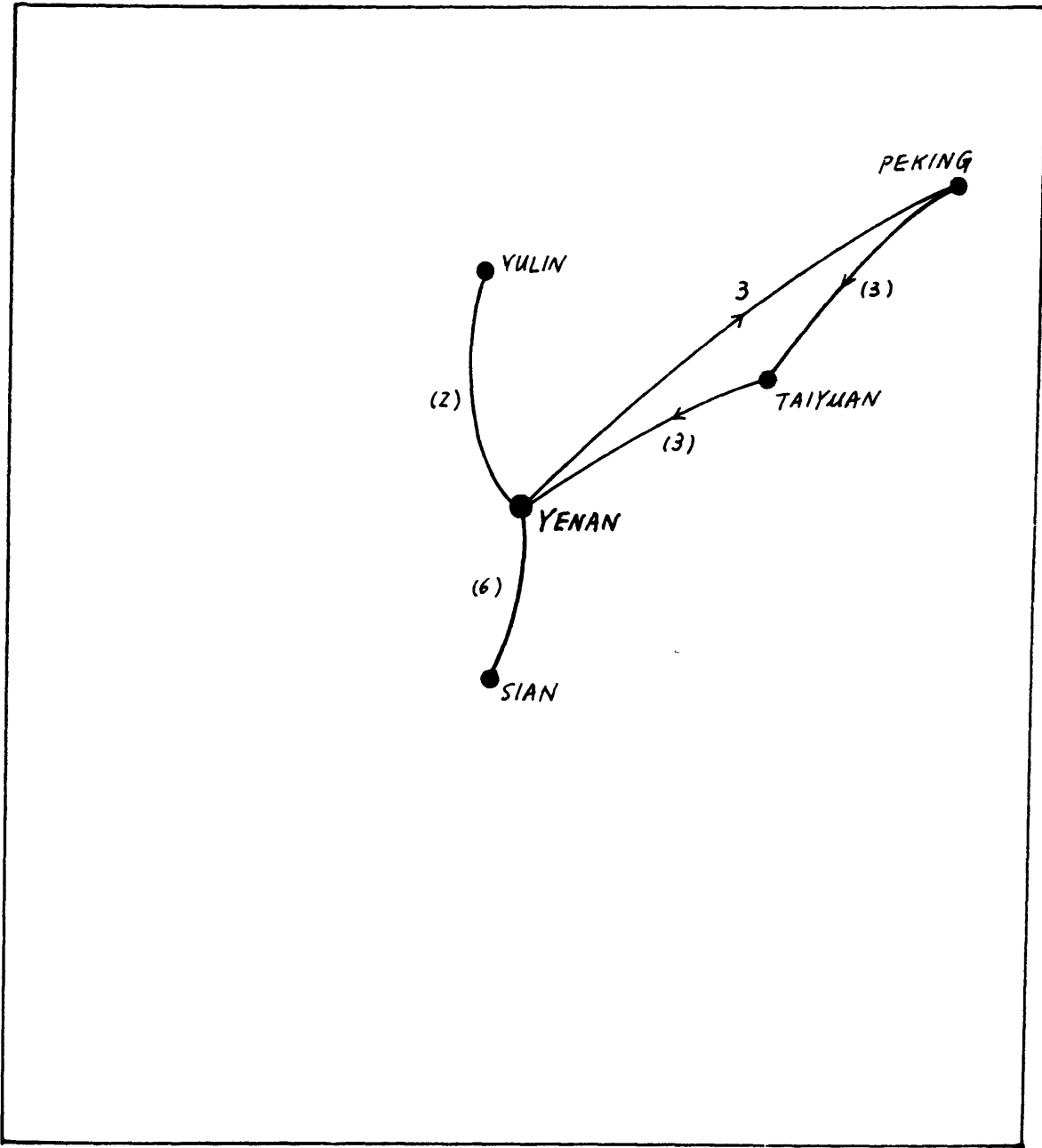


FIGURE 5-23 DIRECT SERVICE NETWORK FOR YENAN (NOV. 1973)

TABLE 5-34

CONNECTIONS AMONG THE 22 MAJOR CITIES

From:

To:	Canton	Changsha	Chengchow	Chengtú	Chungking	Hangchow	Kunming	Kweiyang	Lanchow	Nanchang	Nanking	Nanning	Peking	Shanghai	Shenyang	Sian	Taiyuan	Tientsin	Tsinan	Urumchi	Wuhan	Yenan	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	
1. Canton		6	4	2	2	7	2	2		4	0	5	15	9	9								4
2. Changsha	6		4	1		2	3	2		2		1	6	2									4
3. Chengchow	4	4					0	1	3		3		6	3	1	4		1					5
4. Chengtu	2	1			12		0	4	NS		3		6	3	1	4	2						3
5. Chungking	2			12			1	2			3		2	2		2							3
6. Hangchow	7	2								4			1	6									
7. Kunming	2	2	1	3	1			3		2	0	2	5	2		1							1
8. Kweiyang	2	2	1	4	2		3			2			1	2									1
9. Lanchow			3	NS							2		5	2	1	7	3	1		3			
10. Nanchang	4	2				4	2	2						6									
11. Nanking			3	3	3				2				3	10	3	3		3	4				3
12. Nanning	5	1					2						3										
13. Peking	15	7	5	4	2	1	6	1	5		3	3		11	9	11	4		4			5	3
14. Shanghai	9	5	3	3	2	6	2	2	2	6	10		11		3	3		3	7			2	
15. Shenyang			1	1				1		3			9	3		2	1	4	3				
16. Sian			4	4	2		1	7		3			11	3	2		8	1					6
17. Taiyuan				2				3					8		1	5							0
18. Tientsin			1					1		3				3	4	1			3				
19. Tsinan										4			4	7	3			3					
20. Urumchi																							
21. Wuhan	4	4	5	3	3		1	1		3			5	2									
22. Yenan													3			6	3						

Note: Number in table represent one way weekly frequency.

NS = Non scheduled Service

5.2.2 INTERNATIONAL SERVICES

By the end of 1974, 8 foreign airlines were serving China. All of them served Peking, but only Japan Airlines was serving Shanghai. Apparently most of the connecting services between Peking and Shanghai are taken up by the 2 domestic daily Boeing 707 flights offered by CAAC.

A detailed account of the developments of these international services will be covered in Chapter 7. Here in this chapter, we shall investigate the present situations - the networks and the schedules.

Table 5-35 lists the foreign carriers now serving China. Pakistan International Airlines has been serving China since 1964, and Air France started service in 1966. They were the pioneers of foreign non-communist carriers to go to China after 1949. Ethiopian Airlines was the third one and was soon followed by the others.

Compared with situations of 1972, China's air space is a lot wider "opened". Before, there were always problems for businessmen to fly to China. Most of them chose to enter through Hong Kong. Now, as long as you can get an entry permit, you can practically enter China from all directions.

As for China, CAAC now has the right to operate services to all the main continents, and is able to offer round-the-world service. However, its international network is still very limited, serving only its neighboring countries like Japan, Burma, N. Vietnam, and N. Korea.

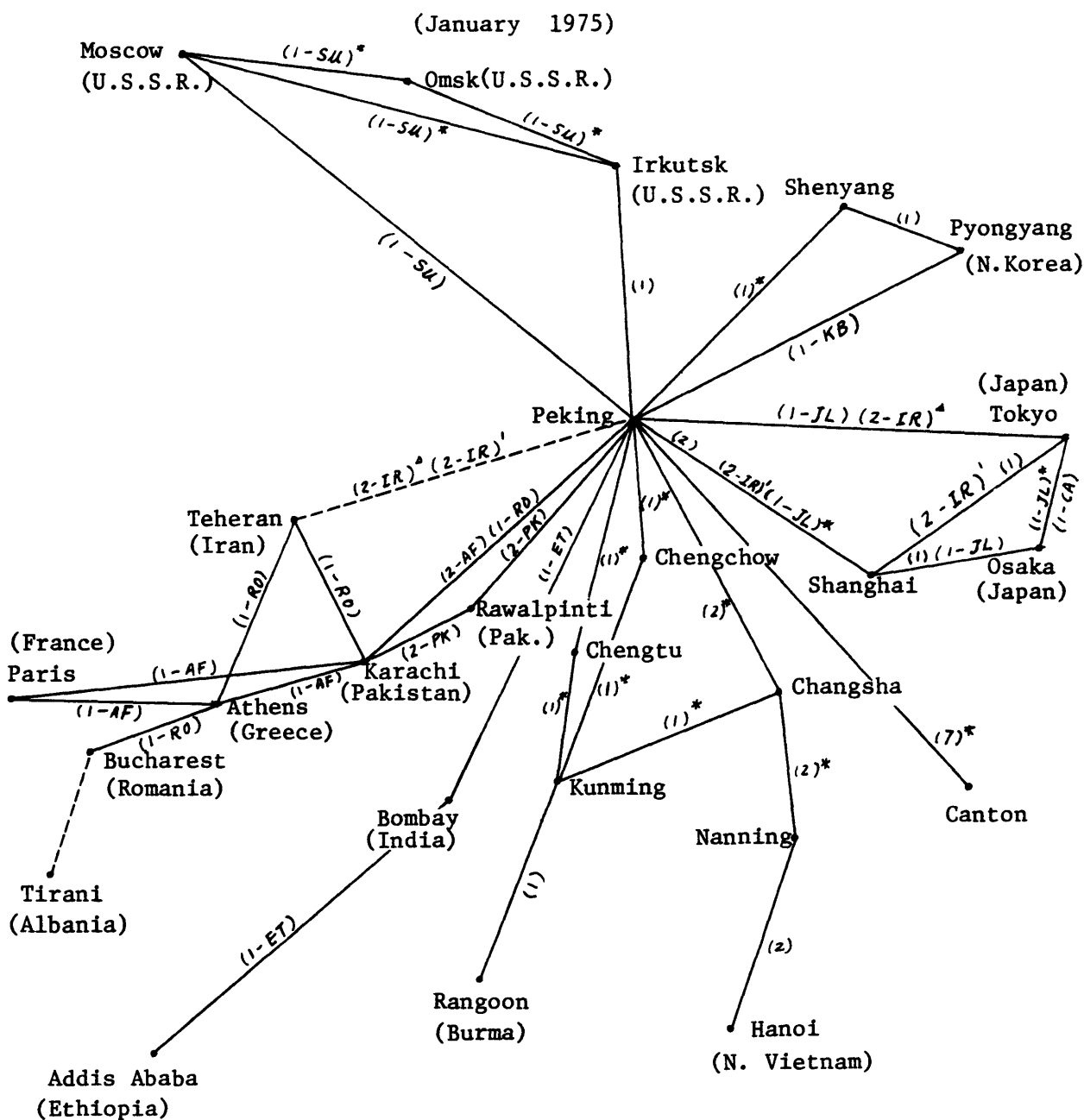
TABLE 5-35

FOREIGN CARRIERS SERVING CHINA (PRC)

(November 1974 - January 1975)

<u>Airline Code</u>	<u>Name</u>	<u>Services to</u>
1. AF	Air France	Peking
2. ET	Ethiopian Airlines	Peking
3. IR	Iran National Airlines	Peking, Shanghai
4. JL	Japan Air Lines Company, Ltd.	Peking, Shanghai
5. KB	C.A.A.DPRK (Civil Aviation Administration of the Democratic People's Republic of Korea)	Peking
6. PK	Pakistan International Airlines	Peking
7. RO	TAROM - Roumanian Air transport	Peking
8. SU	Aeroflot Soviet Airlines	Peking

Figure 5-24. INTERNATIONAL AND CONNECTING DOMESTIC SERVICES



* = With more domestic flights. Δ = As shown in Nov. 1974 OAG
 ----- Routes pending Government approval.
 Δ = Pending Government approval as appeared on January 1975 OAG.
 (number-airline code) = number of weekly round trip service offered by that
 airline.
 (number) = number of weekly round trip service offered by CAAC.

A. International Flight Schedules

A list of the international routes operated by foreign carriers at the end of 1974 is shown in Table 5-36. Some of the routes are still pending government approvals. In addition to those routes, the route between Europe and China may be extended to include Tirana, Albania's capital, in the near future. Moreover, the route to Addis Ababa will also be expected to connect with the whole East Africa soon.

Canada's CP Air has been thinking of operating services to China for a long time. So far, it failed to do so because of some technical problems in operation and also due to the difficulty in obtaining landing rights in Japan. Now, CAAC has already started its service to Japan, and extended service to Canada should come soon. At that time, CP Air should be able to solve all these problems by reciprocity. Hence connecting North America with China.

Table 5-37 listed the international routes operated by CAAC and all the international services were summarized in Table 5-38. A network diagram of the international services is shown in Figure 5-26.

Most of these international services are still running at a loss. (Reportedly, only Air France is making money.) However, almost all the airlines are looking forward to a good future. They all have confidence that the market situation will be improved soon.

TABLE 5-36

INTERNATIONAL FLIGHTS OPERATED BY FOREIGN CARRIERS

<u>Flight No.</u>	<u>Route</u>	<u>Frequency</u>
PK750	Karachi/Rawalpinti/Peking	1 Thur.
PK751	Peking/Rawalpinti/Karachi	1 Fri.
PK752	Karachi/Rawalpinti/Peking	1 Sun.
PK753	Peking/Rawalpinti/Karachi	1 Mon.
AF178	Paris/Karachi/Peking	1 Thur.
AF179	Peking/Karachi/Paris	1 Sat.
AF180	Paris/Athens/Karachi/Peking	1 Mon.
AF181	Peking/Karachi/Athens/Paris	1 Wed.
RO311	Bucharest/Athens/Teheran/Karachi/ Peking	1 Fri.
RO312	Peking/Karachi/Teheran/Athens/ Bucharest	1 Sat.
ET772	Addis Ababa/Bombay/Peking	1 Wed.
ET773	Peking/Bombay/Addis Ababa	1 Thur.
KB151	Pyongyang/Peking	1 Tue.
KB152	Peking/Pyongyang	1 Tue.
SU571	Moscow/Peking	1 Fri.
SU572	Peking/Moscow	1 Sun.
JL781	Tokyo/Peking	1 Wed.
JL782	Peking/Shanghai/Osaka/Tokyo	1 Wed.
JL785	Tokyo/Osaka/Shanghai/Peking	1 Mon.
JL786	Peking/Tokyo	1 Mon.
*IR800	Teheran/Peking/Shanghai/Tokyo	2 Tue. Sat.
*IR801	Tokyo/Shanghai/Peking/Teheran	2 Wed. Sun.
**IR800	Teheran/Peking/Tokyo	2 Tue. Sat.
**IR801	Tokyo/Peking/Teheran	2 Wed. Sun.

Source: Official Airline Guide - International Edition, November, 1974 and January, 1975.

* From November, 1974 issue of OAG.

** From January, 1975 issue of OAG. Pending Gov't Approval.

TABLE 5-37

CAAC INTERNATIONAL FLIGHTS
AND CONNECTING DOMESTIC SERVICES

<u>Flight No.</u>	<u>Route</u>	<u>Frequency</u>	<u>Connects</u>
CA137	Peking/Changsha/Nanning	2 Tue. Fri.	CA901 to Hanoi
CA138	Nanning/Changsha/Peking	2 Tue. Fri.	CA902 from Hanoi
CA141	Peking/Chengtou/Kunming	1 Sun.	CA905 to Rangoon
CA142	Kunming/Peking	1 Mon.	CA906 from Rangoon
CA901	Nanning/Hanoi	2 Tue. Fri.	CA137 from Peking/ Changsha
CA902	Hanoi/Nanning	2 Tue. Fri.	CA138 to Changsha/ Peking
CA903	Peking/Shenyang/Pyongyang	1 Fri.	
CA904	Pyongyang/Shenyang/Peking	1 Tue.	
CA905	Kunming/Rangoon	1 Mon.	CA141 from Peking/ Chengtou
CA906	Rangoon/Kunming	1 Mon.	CA142 to Peking
CA907	Peking/Irkutsk	1 Wed.	SU562 to Omsk/ Moscow
CA908	Irkutsk/Peking	1 Wed.	SU561 from Moscow/ Omsk
CA921	Peking/Shanghai/Osaka/ Tokyo	1 Tue.	
CA922	Tokyo/Shanghai/Peking	1 Tue.	
CA923	Peking/Shanghai/Tokyo	1 Fri.	
CA924	Tokyo/Osaka/Shanghai/ Peking	1 Fri.	

TABLE 5-38

SUMMARY OF INTERNATIONAL SERVICES (NOV. 1974)

<u>From/To</u>	<u>Non-Stop Distance (miles)</u>	<u>Weekly Frequency Nov. '74</u>	<u>One Way Fares (U.S.\$)</u>		<u>Excess Baggage (per Kg.)</u>
			<u>First Class</u>	<u>Econ. Class</u>	
Kunming-Rangoon	702	1	-	-	-
Nanning-Hanoi	200	1	one class	16.40	0.16
Peking-Addis Ababa	[5328]	1	827.90	606.00	8.28
Athens	[5698]	2	1180.83	735.46	11.81
Bombay	2945	1	-	-	-
Bucharest	(6214)	1	-	-	-
Hanoi	[1465]	1	one class	139.60	1.40
Irkutsk	1037	1	one class	167.11	1.67
				159.24*	1.59*
Karachi	3011	5	575.00	409.20	5.75
Moscow	3616	1	1576.48	938.70	15.76
			505.82*	389.09*	5.05*
Osaka	1101	1 2*	224.09	160.03	2.24
Paris	[6821]	2	1454.55	808.59	14.55
Pyongyang	499	2	one class	32.12	0.32
Rangoon	[1995]	1	-	-	-
Rawalpindi	-	2	-	-	-
Teheran	[4211]	3	-	-	-
Tokyo	1308	2 4*	256.48	183.30	2.56
Shanghai-Osaka	854	1 2*	140.27	100.10	1.40
Teheran	-	2 0*	862.90	584.20	8.63
Tokyo	1104	1 3*	180.05	128.57	1.80
Shenyang-Pyongyang	223	1	-	-	-

[] = One-Stop Distance

() = Three-Stop Distance

* From Official Airline Guide, January, 1975

B. Recent Developments

Some of the international services timetables are included in the following pages. They are either translated from the April 1973 CAAC timetables or constructed from the recent issues of the Official Airline Guide.

From the timetables, a general idea of how fast things in the past one to two years have been changing can be grasped.

1) China-Pakistan

The China-Pakistan air connection which were started early in 1964 by PIA is now the busiest international route entering China. Between Karachi and Peking, there are now 5 flights weekly, including 3 non-stop flights operated by Air France (2 flights) and TACOM, the Romanian Air Transport.

Air cargo business have been very profitable on this route, although it is going to get really keen competitions from the Japan-China route. In the past few years, the majority of PIA's operating revenues on this route were from freight traffic. Passenger traffic still runs at about 30 to 40% load factors.

2) China-U.S.S.R.

As for the Moscow-Peking route, the fares have been sharply reduced. First class one-way fare was US \$1,576.48 in November 1974 (from the Nov. 1974 issue of OAG), but was reduced to only US \$505.82 as of January 1975 (from the January 1975 issue of OAG). Similarly, the economy class fare

TABLE 5-39

INTERNATIONAL FLIGHT TIME TABLE

CHINA - PAKISTAN

Shanghai - Peking - Rawalpinti - Karachi
(April 1973)

6	4	Weekdays	4	6
PK753	PK751	Flight No.	PK750	PK752
1945	1945	Shanghai	1815	1815
2135 2235	2135 2235	Peking	1630 1530	1630 1530
0145+1 0305+1	0145+1 0305+1	Rawalpinti	0720 0620	0720 0620
0500+1	0500+1	Karachi	0430	0430

Source: Translated form April 1, 1973
CAAC Time Table

TABLE 5-40

INTERNATIONAL FLIGHT TIME TABLE

CHINA - PAKISTAN

Peking - Rawalpinti - Karachi
(Nov. 1974)

6	1	5	6	3	Weekdays	2	5	4	7	5
R0312	PK753	PK751	AF179	AF181	Flight No.	AF180	AF178	PK750	PK752	R0311
2000	1630	1630	1905	1730	Peking	1450	1520	1900	1900	0740+1
↓	1950 2050	1950 2050	↓	↓	Rawalpinti	↑	↑	1020 0925	1020 0925	↑
0030+1	2250	2250	0035+1	2300	Karachi	0500	0530	0730	0730	2140
707	JET	JET	707	707	Aircraft used	707	707	JET	JET	707

One Way Fare (U.S.\$): First Class 575.00
Economy Class 409.20
Excess Baggage Rate = 5.75/kg.

Non-Stop Distance:

Peking - Karachi : 3011 Miles

Source: Constructed form Nov. 1974 OAG

TABLE 5-41

INTERNATIONAL FLIGHT TIME TABLE
CHINA - U.S.S.R

Peking - Irkutsk - Omsk - Moscow
(April 1973)

6	3	3	Weekdays	3	2	5
SU572	SU562	CA907	Flight No.	CA908	SU561	SU571
1350		725	Peking	1550		1150
1635 1755	1250	1100 ←	Irkutsk	1300 ↑	1130	925 810
1910 2000	1405 1505		Omsk		630 0525+1	310 0210+1
2030	1530		Moscow		2315	2000

Source: Translated from April 1, 1973 CAAC Time Table.

Note: From 1975 Jan. OAG, Aeroflot is now operating one weekly round-trip non-stop flight(SU571 and SU572) between Peking and Moscow.

One Way Peking - Moscow Fare(U.S.\$): First Class 505.82
(3616 Miles) Economy Class 389.09
(January 1975) Excess Baggage Rate = 5.06/kg.

was also adjusted to about three times less than the November 1974 price. This sharp reduction in air fare is probably due to competitions from the other routes to Peking. In addition to the reduction in air fares, Aeroflot has also improved its Moscow-Peking service by putting in a non-stop flight in place of the one-stop flight it used to run between the two countries' capitals.

3) China-Burma

The CAAC service to Burma, on the other hand, did not have any major changes in the past years. There is still only one weekly flight between Kunming and Rangoon, the capital of Burma. Jet services have been used on this route.

4) China-North Korea

The situation in the China-North Korea route is similar. Practically the schedules have remained unchanged in the past two years. C.A.A. DPRK, the North Korean flag carrier, operates a non-stop weekly flight between Peking and Pyongyang, its capital. In addition, CAAC operates the other weekly flight between the two countries' capitals via Shenyang.

Although the CAAC's flight between Peking and Pyongyang is an one-stop flight, because of its use of jet aircraft in comparison with the C.A.A. DPRK's Ilyushin IL-14 (which C.A.A. DPRK bought from CAAC some time ago), the flight time is only a mere half an hour longer than than the non-stop flight operated by the Korean airline.

TABLE 5-44

INTERNATIONAL FLIGHT TIME TABLE
CHINA - KOREA

Peking - Pyongyang
(April 1973)

5	2	Weekdays	2	5
KB152	CA903	Flight No.	CA904	KB151
1350	850	Peking (PEK)	1820	1130
↓	1040 1150	Shenyang (SHE)	1620 1530	↑
1700	1400	Pyongyang	1530	1000

Source: Translated from April 1, 1973 CAAC Time Table.

TABLE 5- 45

INTERNATIONAL FLIGHT TIME TABLE
CHINA - KOREA

Peking - Pyongyang
(Nov. 1974)

2	5	Weekdays	5	2
KB152	CA903	Flight No.	CA904	KB151
1340	0850	Peking (PEK)	1810	1140
↓	1040 1150	Shenyang (SHE)	1610 1530	↑
1700	1400	Pyongyang (FNJ)	1530	1000
Y14	JET	A/C Type	JET	Y14

Source: Constructed from Nov. 1974 OAG.

Peking-Pyongyang One-way One Class Fare: $\frac{\text{RMB}}{73.00}$ $\frac{\text{U.S. \$}}{32.12}$

Non-Stop Distances: Peking-Pyongyang 499 Miles. Shenyang-Pyongyang 223 Miles.

Note: As it turn out, schedule had remained the same during this period.
KB = C.A.A.DPRK Civil Aviation Administration of the Democratic People's

Republic of Korea.

5) China-North Vietnam

There are now two weekly round-trip flights between Nanning and Hanoi, North Vietnam's capital operated by CAAC. Jets were used on the route. However, only connecting flights are available between Peking and Hanoi.

6) China-Japan

Perhaps the biggest change in the overall international services picture is the addition of the China-Japan services. As of January 1975, both CAAC and the Japan Airlines are operating two weekly services between the two countries. There are now four weekly round-trip flights between Peking and Tokyo, including a non-stop flight offered by Japan Airlines; 3 weekly round-trip flights between Shanghai and Tokyo, including a non-stop flight operated by CAAC; and two weekly round-trip flights between Osaka and the two Chinese cities. Boeing 707s are used on the route by CAAC while Japan Airlines has been using the Super DC-8. Right now, Japan Airlines is the only foreign airline serving Shanghai, the largest city of China. But according to recent reports, the Japan airline is not doing profitably on the route. In addition, in establishing this Peking-Tokyo link, Japan Airlines' very profitable route between Tokyo and Taipei had been cut off. However, some of the Japanese government officials are still optimistic about the future prospects of this new air relation.

TABLE 5-46

INTERNATIONAL FLIGHT TIME TABLE
CHINA - N. VIETNAM

Peking - Changsha - Nanning - Hanoi
(April 1973)

1 4	1 4	Weekdays	2 5	1 4
CA901	CA137	Flight No.	CA138	CA902
	0715	Peking	1320	
	1040 1145	Changsha	0955 0910	
1445	1400 ←	Nanning	0705 ↑	1800
1450		Hanoi		1610

Source: Translated from April 1, 1973 CAAC Time Table.

TABLE 5-47

INTERNATIONAL FLIGHT TIME TABLE
CHINA - N. VIETNAM

Peking - Changsha - Nanning - Hanoi
(Nov. 1974)

2 5	1	2 5	Weekdays	2 5	1	2 5
CA901	CA137	CA137	Flight No.	CA138	CA138	CA902
	0745	0745	Peking (PEK)	↑ 2135	2210	
	1110 1225	↓	Changsha (CSX)	↑	1845 1730	
1315	1440 ←	1200 ←	Nanning (NNG)	↑ 1730	↑ 1525	1615
1515			Hanoi (HAN)			1430
JET	PRP	PRP	A/C Type	PRP	PRP	JET

Source: Constructed from Nov. 1974 OAG.

One-way One class Fare:	RMB	U.S.\$	Non-Stop Distances:	
Hanoi-Nanning	30.00	13.20	Hanoi-Nanning	200 Miles
Peking-Nanning	280.00	123.20	Peking-Nanning	1265 Miles
Changsha-Nanning	100.00	44.00	Changsha-Nanning	471 Miles

TABLE 5-48

INTERNATIONAL FLIGHT TIME TABLE
CHINA - JAPAN

Peking - Shanghai - Osaka - Tokyo
(Nov. 1974)

1	3	Weekdays	3	1
JL786	JL782	Flight No.	JL781	JL785
1645	1355	Peking (PEK)	1225	1515
↓	1540 1640	Shanghai (SHA)	↑	1330 1230
↓	1940 2040	Osaka (OSA)	↑	1055 0955
2130	2135	Tokyo (TYO)	0900	0900
D8S	D8S	A/C Type	D8S	D8S

Source: Constructed from Nov. 1974 OAG.

TABLE 5-49

INTERNATIONAL FLIGHT TIME TABLE
CHINA - JAPAN

Peking - Shanghai - Osaka - Tokyo
(Jan. 1975)

5	2	1	3	Weekdays	3	1	2	5
CA923	CA921	JL786	JL782	Flight No.	JL781	JL785	CA922	CA924
0730	0730	1645	1355	Peking	1225	1515	2135	2130
0915 1015	0915 1015		1540 1640	Shanghai		1330 1230	1950 1850	1954 1845
	1315 1415		1940 2040	Osaka		1055 0955		1710 1610
1345	1510	2130	2135	Tokyo	0900	0900	1640	1515
707	707	D8S	D8S	A/C Type	D8S	D8S	707	707

Source: Constructed from Jan. 1975 OAG.

	<u>First Class</u>	<u>Economy Class</u>	<u>Excess Baggage Rate</u>	<u>Non-Stop Distance</u>
One-way Fare:	U.S.\$	U.S.\$	U.S.\$	
Peking-Tokyo	256.48	183.30	2.56k	1308 Miles
Peking-Osaka	224.10	160.00	2.24k	1101 Miles
Shanghai-Tokyo	180.00	128.60	1.80k	1104 Miles
Shanghai-Osaka	140.27	100.00	1.40k	854 Miles

7) China-Ethiopia

As indicated in Table 5-50 and Table 5-51, Ethiopian Airlines is now serving Peking instead of Shanghai. This link between the two countries' capitals is monopolizing the market between China and the whole east Africa. CAAC, however, has not started service on this route. The recent uprising in Ethiopia had made the future of this route uncertain.

8) China-France

Air France is now having two flights a week from Paris to Peking. One of them stops at Athens and Karachi on the way to Peking while the other one is a one-stop flight via Karachi.

Both flights are using Boeing 707s, which is a very popular airplane in international flights to China (the only other airplanes are the Super DC-8s used by Japan Airlines and the IL-62 used by Aeroflot).

Flight time for the one-stop flight is about 24 hours. The two-stop flight only takes about one and half hours longer.

9) China-Romania

TACOM - Romanian Air Transport is now operating a weekly flight between Bucharest, the capital of Romania, and Peking. The service stops over at Athens, Teheran and Karachi on the way.

TABLE 5-50

INTERNATIONAL FLIGHT TIME TABLE
CHINA - ETHIOPIA

Peking - Shanghai - Bombay - Addis Ababa
(April 1973)

4	4	Weekdays	4	3
ET773	CA185	Flight No.	CA152	ET772
	1545	Peking	1225	
2230	1800 ←	Shanghai	1000 ↑	0835+1
0300+1 400		Bombay		2335 2240
620		Addis Ababa		1530

Source: Translated from April 1, 1973 CAAC Time Table.

TABLE 5-51

INTERNATIONAL FLIGHT TIME TABLE
CHINA - ETHIOPIA

Peking - Bombay - Addis Ababa
(Nov. 1974)

4	Weekdays	3
ET773	Flight No.	ET772
2300	Peking (PEK)	0900+1
0310+1 0410+1	Bombay (BOM)	2330 2230
0630+1	Addis Ababa (ADD)	1510
707	A/C Type	707

Source: Constructed from Nov. 1974 OAG.

	<u>First Class</u>	<u>Economy Class</u>	<u>Excess Baggage Rate</u>	<u>Non-Stop Distance</u>
One-way Fare:	U.S.\$	U.S.\$	U.S.\$	
Peking-Addis Ababa	827.90	606.00	8.28	
Peking-Bombay				2945 Miles
Addis Ababa-Bombay				2383 Miles

Note: ET = Ethiopian Airlines.

TABLE 5-52

INTERNATIONAL FLIGHT TIME TABLE
CHINA - FRANCE

Peking - Athens - Paris
(Nov. 1974)

6	3	Weekdays	1	4
AF179	AF181	Flight No.	AF180	AF178
1905	1730	Peking (PEK)	1450+1	1520+1
0035+1 0135+1	2300 2359	Karachi (KHI)	0500+1 0400+1	0530+1 0430+1
↓	0315+1 0405+1	Athens (ATH)	1945 1855	↑
0615+1	0615+1	Paris	1455	1710
707	707	A/C Type	707	707

Source: Construced from Nov. 1974 OAG.

	<u>First Class</u>	<u>Economy Class</u>	<u>Excess Baggage Rate</u>	<u>Non-Stop Distance</u>
One-way Fare:	U.S.\$	U.S.\$	U.S.\$	
Peking-Athens	1180.83	735.46	11.81k	
Peking-Paris	1454.55	808.59	14.55k	
Peking-Karachi	575.00	409.20	5.80k	
Karachi-Peking				3011 Miles
Karachi-Paris				3810 Miles
Athens-Paris				1304 Miles
Athens-Karachi				2687 Miles

TABLE 5-53

INTERNATIONAL FLIGHT TIME TABLE
CHINA - ROMANIA

Peking - Karachi - Teheran - Athens - Bucharest
(Nov. 1974)

6	Weekdays	5
R0312	Flight No.	R0311
2000	Peking (PEK)	0740+1
0030+1 0130+1	Karachi (KHI)	2140 2040
0230+1 0330+1	Teheran (THR)	1630 1520
0530+1 0700+1	Athens (ATH)	1030 0930
0830+1	Bucharest (BUH)	0800
707	A/C Type	707

Source: Constructed from Nov. 1974 OAG.

Non-Stop Distance:

Bucharest - Athens 473 Miles
Karachi - Athens 2687 Miles
Karachi - Peking 3011 Miles
Karachi - Teheran 1200 Miles
Athens - Teheran 1530 Miles

Note: RO = Romanian Air Transport.

10) China-Iran

The situation of the service between China and Iran is not very clear. It seems that Iran Air had been serving both Shanghai and Peking in Nov.1974 as shown in the November 1974 issue of the Official Airline Guide. Iran Air had included the route in its flight timetable. However, from other sources, the service has been postponed due to some technical difficulties.

TABLE 5-54

INTERNATIONAL FLIGHT TIME TABLE

CHINA - IRAN - (-JAPAN)

Teheran - Peking - Shanghai - Tokyo
(Nov. 1974)

2 6	Weekdays	3 7
IR800	Flight No.	IR801
2345	Teheran	0600+1
1145+1 1245+1	Peking	0200+1 0115+1
1430+1 1530+1	Shanghai	2330 2230
1900+1	Tokyo	2030
707	A/C Type	707

Source: Constructed from Nov. 1974 OAG.

	<u>First Class</u>	<u>Economy Class</u>	<u>Excess Baggage Rate</u>	<u>Distance</u>
One-way Fare:	U.S.\$	U.S.\$	U.S.\$	
Teheran-Shanghai	862.90	584.20	8.70	
Peking-Tokyo				1308 Miles(non-stop)
Peking-Teheran (via Karachi)				4211 Miles

TABLE 5-55

INTERNATIONAL FLIGHT TIME TABLE

CHINA - IRAN - (- TOKYO)

Teheran - Peking - Tokyo*

2 6	Weekdays	3 7
IR800	Flight No.	IR801
2345	Teheran	0455+1
1210+1 1315+1	Peking	0030+1 2325
1800+1	Tokyo	2000
707	A/C Type	707

Source: Constructed from Jan. 1975 OAG.

* Pending government approval.

5.3 Domestic Fares and Rates

Even though wages are very low in China, domestic air fares are not exactly low at all. An ordinary trip from Shanghai to Peking would cost 150 yuans (U.S. \$66.00) which is about three months pay of an ordinary worker in the mainland. Hence, domestic air travel is still very unpopular among the ordinary people.

Air travel is generally more expensive than rail travel but recently raised first-class fares make some intercity rail trips more expensive than flying. There is a trend in the government policy that more efficient utilization of human and economic resources are encouraged. One aspect of this policy is the diversion of more rail passenger traffic to the airways. Since 1958, CAAC fares on many routes, except the major ones, have dropped considerably.

5.3.1 The Two-Tier System

China runs a two-tier domestic fare structure. One set of fares applies to domestic sectors forming part of international travel as well as to sales outside the country for transportation on solely domestic routes.⁴⁶ These fares are much higher than those for domestic transportation purchased within the country.

However, since most transportation purchased by visitors were

prearranged by the Chinese Travel Agency, this two-tier system only benefits local residents, if they do travel.

Moreover, most of the domestic air travel so far are moatly business or official travel in which the government pays for all the travelling expenses. Hence, this kind of lower rate privilege actually benefits the Chinese government. Looking this system at another angle, the people paying the higher tariff are actually subsidizing the local travellers, or in turn the Chinese Government indirectly. This occurs in some other countries too where there are two different money exchange rates in existence.

On most of the references, only the higher tariffs were given. As a result, all the domestic fares mentioned in this report so far are of the higher rate.

In order to distinguish the higher and the lower tariffs, from now on, the lower rate for the local residents will be called the local rate or the local fare while the higher tariff will still be called domestic fare.

5.3.2 Comparison Between the Two Rates

Some of the local fares on some domestic routes are found along with the CAAC schedule in Aireview. Hence, they are tabulated in Table 5-56 together with the domestic fares (which are in parentheses). The higher tariff will apply, when any section of a domestic route of the Administration (CAAC) constitutes a portion of the international transport, and when a coupon of a single domestic transport is bought outside China. All the fares used in the table are in RMB (1 Yuan = 0.44 U.S. Dollar).

There is also a differential for excess baggage and freight rates.

TABLE 5- 56

COMPARISON BETWEEN LOCAL FARES AND INTERNATIONAL FARES

ON DOMESTIC SEGMENTS

<u>From Kwangchow To</u>	<u>One-Way Fare</u>	<u>Excess Baggage Rate (per kg.)</u>	<u>Cargo Rate</u>
Peking	91.00 (244.00)	1.58 (2.44)	1.26 (1.95, 1.46)
Chengchow	75.00 -	1.06 -	0.84 -
Wuhan	49.00 (106.00)	0.68 (1.06)	0.54 (0.84, 0.63)
Changsha	32.00 (68.00)	0.44 (0.68)	0.35 (0.54, 0.40)
Shanghai	72.00 (155.00)	1.03 (1.55)	0.82 (1.24, 0.93)
Hangchow	63.00 (135.00)	0.90 (1.35)	0.72 (1.08, 0.81)
Nanking	- (164.00)	- (1.64)	- (1.31, 0.98)

Note: All fares are in RMB
 Fares in parentheses = CAAC tariff for international
 transport on domestic routes.
 The other fares are the local tariff.

Cargo rate for international flights = (x,y)
 whereas x = rate for cargo under 45 kg.
 y = rate for cargo over 45 kg.

The local rate is about 1.5% of the one-way one class fare with a range from 1.1% to 1.7%, the range being unrelated to distance. At the higher tariff, the rate is a uniform 1.0%. Local freight rates show wide variation in comparison to passenger fares over identical sectors, the range per kg. being from 0.8% of the one-way fare to 1.3%. The domestic tariff for international cargo moving over domestic segments, however, features a weight break at 45 kg. (100 pounds). Below 45 kg. the rate is a flat 0.8% of the applicable passenger fare. Above 45 kg. it is 0.6%.

For the particular group shown in Table 5-56, locally sold tickets are pegged at about 43% of the cost of domestic sectors of international flights or domestic transportation paid for outside China. In other words, the lower fare means a 57% discount from the higher tariff, or the domestic fare represents a 132% premium over the local fare. Moreover, this difference is not in any way related with service amenities (as only one-class service is available domestically except in some rare occasions) or type of equipment.

5.3.3 Rate Structure

From a group of routes whose fares appeared in the recent issues of the Official Airline Guide, a graph is plotted with their fares vs the non-stop distances (Figure 5-25). It appeared that the points are lying along a straight line passing through the origin! Thus, the average route-mile charge for the short-haul markets is about the same as that in the long-haul markets. This would actually mean some sort of cross-subsidization of the short-haul routes by the long-haul ones. In the United States, however, the fare structure would have a constant charge for every trip

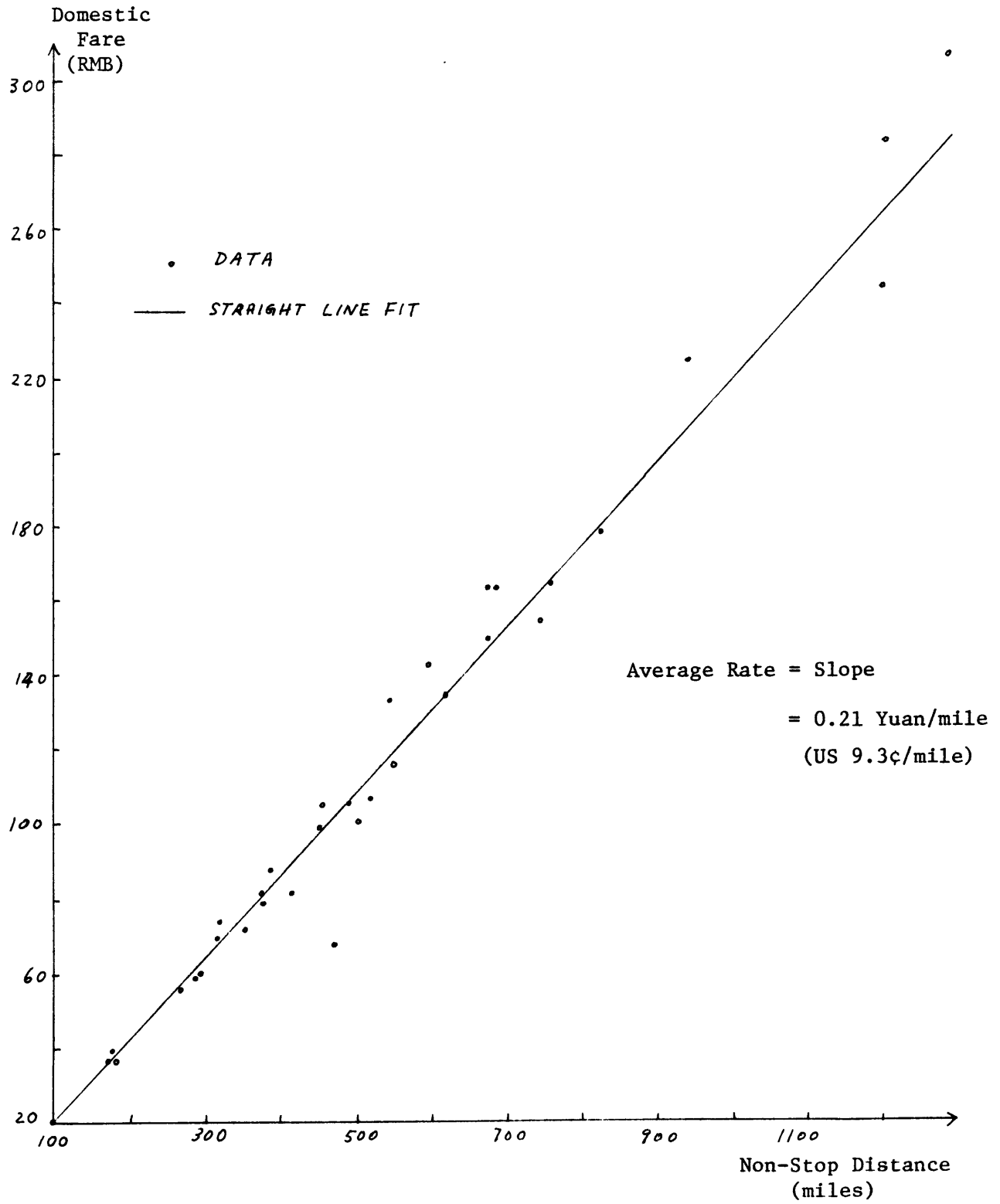


Figure 5-25. Rate of Domestic Service

which is independent of the distance travelled. Besides, the longer the trip, the lower will be the per mile rate. This is not the case for the CAAC rates. A closer look at the graph actually indicates that of the longer-haul routes, many of them are actually above the line. This means they have a even higher rate than the average short-hauls.

The line drawn in Figure 5-25 represents a rate of about 9.3¢ per mile. This is pretty high compared with the western standard of about 6 to 7¢ per mile. However, the local fare would be just about 4¢ per mile, in which case it is a lot lower than the western rates.

One interpretation to the phenomenon of cross-subsidizing is that maybe the Chinese government deem it fairer for every passenger to pay the same amount of money for every mile they travel, no matter how far they go.

From various sources, it is also known that the rate in the far west, such as the Sinkiang Province, are even higher than those in the more densely populated eastern provinces.

5.3.4 The One Class System

All domestic routes of CAAC have one-class service although CAAC has occasionally experimented with first-class seats on the domestic segments of international flights. For instance, in the Peking-Shanghai route, if you get on the ordinary CAAC domestic flights, only one class of service is available; but if you get on the Boeing 707 flight which joins China with Japan, two-class service is being used.

Round trip domestic flights bring savings of 5 percent and stopovers en route are permitted for the local fare system. However, OAG indicates no 5% savings for international passengers. Tickets for children 2 to 12 years old cost half the adult fare; the charge for infants not occupying a separate seat is 10 percent of the full fare.

One unusual feature of the fare system is compulsory flight insurance on all domestic flights (premium: 0.5 percent of the fare).

5.4 CAAC Airline Operations

5.4.1 Reservations and Cancellations

For foreign visitors, flight reservations in China are made at offices of CAAC or China International Travel Service (Luxingshe 旅行社), which is comparable to Intourist. Abroad, Luxingshe agents and over 20 airlines can book space. However, printed timetables of CAAC are hard to find outside China. The only thing that is helpful would be the Official Airline Guide, which included many of the main Chinese domestic routes in its international editions recently.

According to some sources, CAAC may cancel reservations if not paid for by noon the day before a flight. Moreover, CAAC's regulations would allow it to assess two yuans to 10 percent of the air fare for cancellations more than three hours before domestic departures. In the case that a domestic or international space is cancelled less than three hours before departure time, a 25 percent charge will be incurred.

With this relatively stiff charges on no-shows, it is needless for CAAC to oversell. Furthermore, passengers seeking refunds less than 12 hours after domestic departures are assessed 50 percent of the fare; there will be no refund after 12 hours. As for international flights, the rule is less strict. Only up to 25% of the one-way fare will be charged for no-shows.

5.4.2 Baggage Allowance

CAAC strictly enforces baggage allowances, which is 33 pounds without

charges domestically, and 44 pounds on international flights. A charge corresponding to 1% of the fare is imposed on each additional kilo. Eleven pounds of carry-on luggage is permitted.

5.4.3 Cabin Services

According to people that had visited China, Cabin service on CAAC, while not of the same level as that in the U.S. or Europe, was not bad at all. Cabins were basic in their configurations, but were very very clean. Somehow, cleanliness has always been the impression to most tourists to China on many instances.

Seating configurations are just like those found on the U.S. planes, but with less comfortable plush seats (with the exception on the Boeing-707 planes). On CAAC's bigger planes, 4-abreast seating for First Class and 6-abreast seating for Economy Class are common. As for the case of the IL-62, the galley was located in the middle section of the plane.

On the domestic flights, usually no meals are served. Passengers may have to eat their meals during the stop-overs. However, there are generous snacks - apples and pears, chocolate bars and tea. In addition, free notebooks, calendars, postcards and pens are sometimes distributed.

There is no flight entertainment now, but during the Cultural Revolution CAAC stewardesses were reported to have been singing political songs and reading Quotations from Chairman Mao during CAAC flights.

Numerous stewardesses and stewards were found on the international flights. Some of them speak foreign languages. In general, reports all

said that they are very friendly and attentive. As for uniforms, they all dressed in dark blue outfits, just like the people on the street.

5.4.4 Inflight Regulations

There are quite a number of CAAC inflight regulations not usually found in the other airlines. Above all, the fact that smoking is permitted on board at all times, carry-on items are allowed to be stored in overhead racks and that the use of seat-belts are not enforced (there are no seat-belts at all on most of the Soviet-built planes) make one feels that CAAC's safety rules are sort of old-fashioned.

However, those are just the easy side of CAAC in-flight rules. On the strict side, both binoculars and cameras cannot be used on board (even at the airport).

5.4.5 Some Traffic Data of CAAC

As mentioned earlier, China seldom gave out solid figures on its achievements, aviation is just no exception. Consequently, it is hard to obtain a meaningful picture of CAAC's traffic growth.

From a number of sources (References 2,3,53,46,and 13), some traffic data are gathered and are presented in Table 5-57 and Table 5-58.

TABLE 5-57

SOME TRAFFIC DATA OF CAAC SCHEDULED OPERATIONS - 1972⁴⁶

Aircraft miles flown (000)	10,600
Aircraft departures	35,100
Hours flown	51,000
Passengers carried	1,200,000
Passenger miles (000)	525,000

TABLE 5-58

PASSENGER-MILE TRAFFIC TREND FROM 1946 TO 1972

<u>Year</u>	<u>Unduplicated Route-miles</u>	<u>Passenger-miles</u>
1946	14,000	140,200,000
1954	8,835	60,700,000
1958	20,505	67,743,000
1960	24,535	164,300,000
1967	25,500	254,400,000
1972	37,290	525,000,000

5.4.6 Maintenance

The Soviet Union used to have advisory staff in China supervising all the maintenance works. Even then, CAAC had a habit of sending the aircraft back to the manufacturer for overhauls. Only the minor checkups were done in china.

After the breach with the Soviet Union in the early 1960's, China turned to other countries for assistance. Pakistan International Airlines, for example, was said to have aid China in maintaining the Viscounts and the Tridents.

Apparently, the air hubs like Peking, Shanghai, Shenyang, Lanchow, etc. are also the centers for maintenance. However, even the smaller regional workshops are able to handle some minor repair works.

According to some personnel of airlines that are serving China, the Chinese mechanics and other maintenance staff are very competent and efficient. They care very much the conditions of their equipment. However, most of the repair work are being done in open air as there are not many hangars available at the Chinese airports.

Also, just like many other facilities such as the airports, the maintenance shops are sometimes shared by the CAAC and the air force.

From a recent issue of Aviation Week and Space Technology, some of the CAAC's airplanes are overhauled in Hong Kong.

5.4.7 Training of Personnel

In the 1950's, most of the CAAC's pilots and technicians were trained in the Soviet Union. The others were either trained by military departments, or in the College of Aviation set up by the Chinese government in Peking early in 1952. In addition to the school in Peking, the Civil Aviation Mechanical Vocational School was established in Chengtu, Szechuan Province in 1963.²³ Some time later, another civil aviation school was established in Sian, Shensi Province.

At the aviation schools, it is believed that political indoctrination are emphasized in addition to the regular training in maintenance.

Pakistan International Airlines and Rolls Royce was said to have trained quite a number of maintenance staff for CAAC. It seems that training program has become an important issue in negotiating aircraft sales deal with China.

Under the contract of the sales of the Boeing 707s, many Chinese aviation personnel have already visited the Boeing Plants at Seattle. It is said that the Boeing Company will trained the Chinese technicians the operations of the Boeing 707s and also help China set up a maintenance center at Shanghai.

5.5 Aircraft Equipment of CAAC

5.5.1 In the Early Years

After taking over SKOGA in the end of 1954, CAAC's fleet were mainly Soviet-built planes like the AN-2s and the LI-2s (license-produced versions of the Douglas DC-3s). Another plane that had been very popularly used is the Super-Aero 45 of the late 1950's. In 1956, twenty IL-14Ms were supplied by the Russians to augment the CAAC fleet.

Many of these aircraft are produced in the Chinese version later in the years. Among them are the Shenyang AN-2s, the Sungari No. 1s, the Fong Shou No. 2s, and the Capital No. 1s. They were used in the feeder lines and also in agricultural works.

In 1958, substantial increases were made in the CAAC civil air fleet, beginning with the import of a number of twenty-six-passenger IL-14P transports produced under license in East Germany at VEB Flugzeugwerke, Dresden. As the first CAAC type available in quantity, the IL-14P became standard equipment and began to replace the remaining LI-2s, C-46s, and C-47s that were still in use.

In 1959, five IL-18 transports were ordered to open routes between Canton and Peking. These airplanes, however, had a poor service life. Hence, in 1963, the engines were changed and five more IL-18 transports were ordered. Despite its poor performance, the IL-18's became the

pride of CAAC, and they were used for international good-will flights to central and southeastern Asia, the Middle East, and Africa, carrying Chinese Communist delegates to various international conferences and meetings.

During 1963 and early 1964 six British Viscount 843s were delivered to CAAC, breaking the Soviet monopoly of aircraft sales to China. Representing about 12% of the approximately 50 airplanes in the CAAC fleet at that time, the Viscounts began to account for a considerably large proportion of seat-mile production. Their longer range also permitted introduction of more non-stop services.¹¹

CAAC also sent missions to the other European countries shopping for more transports. However, they ended up ordering five more IL-18s from the Soviet Union, by then their sworn enemy, bringing the CAAC total to fifteen.

From 1965 to 1967, trade between the corporations responsible for the sale and purchase of aeronautical equipment - AVIA EXPORT in the case of the USSR, and TECHNO IMPORT in the case of China - was substantial. Twenty to thirty million roubles were paid for two AN-24s, two TU-124s, four MI-6 helicopters, engines and spare parts.³

From 1967 to 1971, CAAC's services had a substantial cutback due to the Cultural Revolution in China. Since 1971, there were an outpour of aircraft orders and the CAAC fleet was transformed to the present shape equipped with modern jets.

5.5.2 CAAC Equipment of the Present Day

CAAC was first equipped with jet transports when in 1970 four (some reports said three) Hawker Siddeley Trident 1Es were purchased from the Pakistan International Airlines. However, only three of them are remaining in the fleet, the fourth one crashed on an unscheduled flight in Mongolia in September 1971, reportedly killing former Defense Minister Lin Piao.

The Chinese did not use the Tridents in scheduled service until some time in 1972. PIA is said to help with Trident 1Es maintenance and training.

Earlier in 1971, CAAC purchased another six Tridents from the manufacturer, this time the Trident 2E models, for a total worth of \$50 million. It seems that the Chinese government are happy with the performance of the Tridents and had ordered another 27 of the Trident 2Es in the past 2 years.

As for Soviet-made aircraft, CAAC ordered ten Ilyushin IL-62s from the Soviet Union in 1971. The first two IL-62s were delivered to China in December 1971, and three more in 1972. But then the Chinese were very unhappy with the IL-62s. The airplanes were reported to have stationed in Peking and were not put into scheduled service until recently. It is said that the IL-62s are only used in special occasions. However, from the November 1974 issue of the OAG, at least one of the airplanes has been used on regular services between Canton and Peking.

One possible reason for the Chinese dislike of the IL-62s is the political difficulty China has been having with the Soviet Union. Other sources said that CAAC think the planes are unsafe.

The Chinese government also started buying French equipment.

In 1972, an order for two Concorde was signed with SNIAS, and an option was taken with BAC. Chinese delegations have also visited France plants, and five representatives of the CAAC have flown in a Caravelle. In March 1967, France sold China fifteen Alouette helicopters, air navigation equipment and, very recently, in 1973, thirteen Super-Frelon helicopters.³

From more recent reports, it is said that the Chinese government is now undecided on the Concorde. Basically, they want to see how well the SST works in the airline markets before putting in their firm orders.

Perhaps the biggest change in aircraft sales policy in the past ten years is the lift of embargo of commercial aircraft sales to China by the United States in 1972. As a result, 10 Boeing 707s had been ordered. Deliveries were completed in late 1974. The order included four Boeing 707-320Bs and six Boeing 707-320Cs. Three of these aircraft are already in regular service. Two of them are used on the domestic routes serving the busy triangle - Peking, Canton and Shanghai. The other one flies international service to Japan two times in a week.

Table 5-59 listed the current fleet of CAAC.

TABLE 5-59

CAAC'S FLEET IN 1974

<u>Type of Aircraft</u>	<u>(No. of Seats)</u>	<u>No. of A/C in Service</u>	<u>No. of A/C on order</u>	<u>Options</u>
<u>Soviet Equipment</u> *				
-- aircraft				
Antonov AN-2s		400 (1)		
Lisunov LI-2s		20		
Antonov AN-24s (35 seats)		6		
Ilyushin IL-18s (up to 100)		10		
Ilyushin IL-62s (130 seats)		5		
-- helicopters				
Mil -MI-6s and MI-8s		a few		
MI-4s		several dozen		
<u>British equipment</u>				
Viscount 843s (52-70 seats)	5 (2)		4	
Trident 1Es (115 seats)	3 (3)			
Trident 2Es (115 seats)	18		15 (to be delivered in 74-75)	
Super Trident 3Bs (128-180 seats)			2 (to be delivered in 74-75)	
<u>French equipment</u>				
-- helicopters				
Alouette IIIs		15		
Super-Frelons		13		
<u>Franco-British equipment</u>				
Concordes				2
<u>American equipment</u>				
Boeing 707-320Bs (189 seats)	4			
707-320Cs Convertible	6			

Source: Reference 3, page 56
Reference 43, p. 166
Japan CAA

- (1) Approximately 150 used on regional services, the rest being used chiefly for agricultural work.
- (2) Out of six delivered.
- (3) Four aircraft were bought from PIA in 1971. One of these was destroyed in September 1971.

* The CAAC's fleet also includes other, old machines, but it is not known exactly how many there are (IL-12s, IL-14s, etc.).

5.6 Comparison of CAAC with Other Airlines

As most of the world's airlines recovered from the World War II in 1945, civil aviation in China did follow the world growth trend for a short while. However, with the outbreak of the Civil War, what have accomplished were almost totally destroyed by 1949.

Hence, in comparing the world traffic trend with the growth rate of CAAC, we should take this fact into account. To be fair, we should realize CAAC actually started its growth around 1954 when the country was more or less stabilized. From Table 5-60, the world index of growth has already increased by 325% of the 1946 index while CAAC's growth index fell to less than half of that of 1946.

TABLE 5-60⁴⁶

CAAC AND WORLD TRAFFIC TRENDS

<u>Year</u>	<u>CAAC</u>		<u>World Index</u>
	<u>Pax miles (000)</u>	<u>Index</u>	
1946	140,200	100	100
1954	60,700	43	325
1960	164,300	117	681
1967	254,400	181	1,708
1972	525,000	374	2,890

Source: "Airline Newsletter", November 15, 1973
Reference 46

Reference 46 did a good comparison of CAAC with the world's other airlines, using their operating data in 1972 as the basis:

As an almost wholly domestic carrier, CAAC compares favorably in size and volume of operations with such well-known domestic airlines as New Zealand National, Southern in the US, and Brazil's VASP, and with the domestic services of Avianca and Garuda. On a system basis, CAAC ranks with the combined domestic and international operations of the following, all of which have a much greater ratio of international service than CAAC's 3 %: Air Afrique, Air Algerie, East African, Iran Air, Kuwait, LOT, and Saudia. It's somewhat smaller than any one of the US local service carriers, although its network is far more extensive.⁴⁶

This analysis is probably no longer true for CAAC. In the past 2 years, CAAC have been having extremely rapid expansion on both domestic and international services. The ratio of international service is probably around 10% now and has a tendency of going even higher in the next two to three years.

In order to give the readers a general idea of how CAAC stands among the world's carriers in 1972, a comparison of the revenue passenger-miles produced by each carrier is shown in Table 5-61.

TABLE 5-61⁴⁶

COMPARISON OF CAAC WITH OTHER AIRLINES (1972)

<u>Airline or airline division</u>	<u>Pax miles (000,000) 1972</u>
CAAC	525
New Zealand National	453
Southern	596
VASP	542
Avianca - domestic division	498
Cruzeiro - ,,	589
Garuda - ,,	347
Mexicana - ,,	665
SAS - ,,	707
VARIG - ,,	658

Source: "Airline Newsletter", November 15, 1973

Reference 46

CHAPTER 6

AIRPORTS AND AIR TRAFFIC CONTROL FACILITIES

6.1 Early Developments of Airports

When the Communists took over China in 1949, airports were in bad shape with the exception of a few of its coastal airports. Night landing facilities were non-existent. Essentially the Communists had to start from scratch in its efforts on airport development.

According to U.S. military maps, there were a few hundred abandoned fields in 1949, many of them constructed during the 1940's. The Communists had probably made use of some of the better maintained ones to start its initial aviation network. At the same time, they were quick to plan and design new airports according to needs and also upgraded the existing facilities.

According to Communist China 1957 (Reference 17), the investment for capital construction in civil aviation increased by 55% every year during the First Five-Year-Plan period (1953-57), and the major portion of the investment went to building and expanding civil airports, terminals, and fuel-transport stations, as well as improving aircraft-repairing equipment. However, no solid figures can be found on how much capital the Chinese government did invest.

In 1957, work started on the expansion of the Hofei airfield in Anhwei and the Kweiyang airfield in Kweichow; the 1st stage construction of the Central Airport in the east suburbs of Peiping was completed; night flights were started on the Wuhan-Peiping and Canton-Peiping lines.¹⁷

Hence, apparently, airport lightings had been installed around that period so that these night flights were possible.

Later on, to meet growing demands and also to prepare for international operations, the Chinese authorities expanded both the Pai-Yun (白雲 means White Cloud in Chinese) Airport at Canton and the Hung-Chiao (虹橋 means Rainbow Bridge) Airport at Shanghai to meet better standards.

The project at Canton commenced on January 5, 1964, and terminated in early April, 87 working days later. The Shanghai Airport was scheduled to be completed in two stages; the first-phase expansion was brought to completion on April 21, 1964.²²

The Shanghai Hung-Chiao International Airport was actually upgraded rapidly so as to receive Pakistan International Airlines' Boeing 720 jets in 1964.

New Airport construction peaked in 1958-1968; an average of three new or reconstructed fields were opened to traffic annually. It is believed that there were about 100 civil airports in 1968. Some of them are shared with the air force. Only about one-fourth of the airports have paved runways longer than 7,000 feet. Besides, runways were paved sometimes with asphalt and macadam instead of concrete.



Figure 6-1. Main Airports of China

TABLE 6-1

MAIN AIRPORTS

				-----NAMES-----	
<u>Airport Code</u>		<u>English</u>	<u>Traditional Chinese</u>	<u>Simplified Chinese</u>	
1.		Aigun	璦 琿	爱 辉	
2.		Aksu (Akosu, Assu)	阿 克 蘇	阿 克 苏	
3.		Altai (Chenghua)	阿 勒 泰 (承 化)	阿 勒 泰	
4.		Ankang	安 康	安 康	
5.		Anking	安 慶	安 庆	
6.	CAN	°*@ Canton (Kwangchow) (Pai-Yun Airport)	廣 州 (白 雲 機 場)	广 州 (白 云 机 场)	
7.		Changchih	長 治	长 治	
8.		Changchun	長 春	长 春	
9.	CSX	* Changsha	長 沙	长 沙	
10.		Changteh	常 德	常 德	
11.		Chaotung	昭 通	昭 通	
12.	CGO	* Chengchow	鄭 州	郑 州	
13.	CTU	°* Chengtu	成 都	成 都	
14.		Chihfeng	赤 峯	赤 峰	
15.		Chiuchuan	酒 泉	酒 泉	
16.		* Chungking	重 慶	重 庆	
17.	DLC	* Dalien (Dairen)	大 連	大 连	
18.		Enshih	恩 施	恩 施	
19.		Fuyang (Fouyang)	阜 陽	阜 阳	
20.		Fuwen	富 蘊	富 蕴	
21.		Hailar	海 拉 爾	海 拉尔	

TABLE 6-1 (Con't)

22.			Hami	哈密	哈密
23.	HGH	*#	Hangchow (Chien-Chiao Airport)	杭州 (笕桥机场)	杭州 (笕桥机场)
24.	WUH	*#	Hankow (part of Wuhan)	漢口	汉口
25.		*	Harbin	哈爾濱	哈尔滨
26.		*	Hofei	合肥	合肥
27.			Hoihow	海口	海口
28.	HKG	°@	Hong Kong ⁽¹⁾ (Kai-Tak Airport)	香港 (啟德機場)	香港
29.			Huhehot (Kueisui)	呼和浩特(歸綏)	
30.			Ichang	宜昌	宜昌
31.			Ilan	依蘭	依兰
32.			Ining (Kuldja)	伊寧	伊宁
33.			Kanchow	贛州	赣州
34.			Karamai	克拉瑪依	克拉玛依
35.		*	Kashgar (Shufu) (Kashia)	喀什(疏附)	喀什噶爾
36.			Khotan (Hotien)	和闐	和田
37.			Kiamusze (Chiamussu)	佳木斯	佳木斯
38.			Kian (Chian)	吉安	吉安
39.			Kingtehchen	景德鎮	景德镇
40.			Kucha (Kutcha)	庫車	库车
41.			Kueisui (Huhehot)	歸綏(呼和浩特)	
42.			Kuldja (Ining)	伊寧	伊宁
43.			Kurla (Korla)	庫爾勒	库尔勒
44.	KMG	°*#	Kunming	昆明	昆明
45.			Kweilin	桂林	桂林

(1) British Colony

TABLE 6-1 (Con't)

46.	KWE	*	Kweiyang	貴陽	貴陽
47.		*	Lanchow	蘭州	蘭州
48.			Lhasa	拉薩	拉薩
49.			Lini	臨沂	臨沂
50.		*#	Mukden (Shenyang)	瀋陽	沈陽
51.	KHN	*	Nanchang	南昌	南昌
52.			Nanchung	南充	南充
53.	NKG	°*	Nanking	南京	南京
54.	NNG	°*#	Nanning	南寧	南寧
55.			Nanyang	南陽	南陽
56.			Neikiang	麗江(內江)	麗江(內江)
57.			Paoki	寶雞	寶雞
58.			Paoshan	寶山	寶山
59.			Paotow	包頭	包頭
60.	PEK	°*@	Peking (Peiping) (Central Airport)	北京 (中央機場)	北京 (中央機場)
61.	SHA	°*@	Shanghai (Hung-Chiao Airport)	上海 (虹橋機場)	上海 (虹橋機場)
62.			Shaoyang	邵陽	邵陽
63.	SHE	°*#	Shenyang (Mukden)	瀋陽	沈陽
64.	SIA	*	Sian	西安	西安
65.			Sichang (Hsichang)	西昌	西昌
66.			Sining	西寧	西寧
67.			Szema	思茅	思茅
68.			Tahcheng (Tarbagatai)	塔城	塔城
69.			Tahsien	達縣	達縣
70.	TYN	#*	Taiyuan	太原	太原

71.		Tatung	大 同	大 同
72.	TSN	*	Tientsin	天 津
73.		*	Tihua (Tihwa, Urumchi)	迪 化 (烏魯木齊)
74.			Tsamkong (Chankiang)	湛 江
75.	TNA	°*	Tsinan (Chinan)	濟 南
76.			Tungliao	通 遼
77.			Tungjen	銅 仁
78.			Tunki (Hsuancheng)	屯 溪
79.		*	Urumchi (Tihua)	烏魯木齊
80.	WUH	*#	Wuhan	武 漢
81.			Wuhu	蕪 湖
82.	YNC	*	Yenan	延 安
83.			Yinchuan	銀 川
84.			Yulin	榆 林

@ Major International Airports

Secondary International Airports

* Major Domestic Airports

° Scheduled Jet Service

TABLE 6-2

FOREIGN AIRPORTS SERVED OR WILL BE SERVED
(BY CAAC)

NOW IN SERVICE

FNJ	Pyongyang	North Korea
RGN	Rangoon	Burma
HAN	Hanoi	N. Vietnam
Tyo	Tokyo (Haneda Airport)	Japan
OSA	Osaka	Japan
MOW	Moscow	U.S.S.R.
IKT	Irkutsk	U.S.S.R.

NO LONGER ON CAAC ROUTES

ALA	Alma-Ata	U.S.S.R.
OMS	Omsk	U.S.S.R.

CAAC MAY SERVE IN THE NEAR FUTURE

KHI	Karachi	Pakistan
PAR	Paris	France
ATH	Athens	Greece
THR	Teheran	Iran
ADD	Addis Ababa	Ethiopia
TIA	Tirana	Albania
BUH	Bucharest	Romania
RWP	Rawalpindi	Pakistan

6.2 Present Situations of Airports

According to reports written by various visitors to China, the bigger airports at Canton, Hangchow, Peking, and Shanghai all are modern in appearance, clean and spacious. In fact, most visitors were a little bit surprised at the large size of the airport terminals in relation to the number of passengers they handled.

However, the Chinese airports are all limited in their passenger-handling capability. This fact is fully realized by the Chinese government and was used frequently as one of the reasons given to foreign airlines for denying access to Peking.

Unit terminal concept is commonly used in the design of airport terminals. So far, the Chinese people have not been using the gate concept at all even in their busiest airports.

There are at present around 90 bigger airports in China. They are listed in Table 6-1; and their geographic locations are shown in Figure 6-1. Of the handful of airports with long runways, the largest are described below.

6.2.1. Shanghai Hung-Chiao International Airport

Shanghai's Hung-Chiao International Airport is China's most modern terminal. Serving the largest city in the world (population about 11 millions), it has almost always been the first airport the Peking government gave landing rights to foreign carriers. Among the airlines that served Shanghai at the time of their inaugurals are Pakistan International Air-

lines, Air France and Ethiopian Airlines.

The airport was upgraded and modernized in 1964. It has a 10,500-foot concrete runway that is 225 feet wide. The Chinese claim it can accommodate planes over 180 tons. Taxiways are 75 feet wide. Airport equipment includes high-intensity lighting and an instrumental landing system made in China.

CAAC says the system is up to international standards and can handle traffic under all conditions. Though it has not been measured against International Civil Aviation Organization specifications, the ILS and runway were remarked by the TWA crew, who flew the Boeing 707-320C TWA Charter carrying 61 broadcasting network pool officials and technicians to China before President Nixon's visit in February, 1971, as "working fine" and "more than adequate for any modern transport." ⁵⁶ They described the ILS as a compatible type with some glide slope capability, although non-directional beacons rather than VOR and DME were used. However, one VOR station at Wusih has since been working near Shanghai.

6.2.2. Canton Pai-Yun Airport

Canton's Pai-Yun Airport is another Chinese airport that was opened to international traffic. In fact, Canton has been serving as the terminal for international traffic to Hanoi and even Rangoon for many years. Also, when Ethiopian Airlines first started service to China, Canton was included as the first stop into China.

With the opening up of the Peking Airport to the foreign airlines, Canton Airport's role is now a little bit diminished. Still, it serves as a secondary airport for international flights whenever airports in the

Shanghai area are not available (due to weather condition for example).

Like the Shanghai Airport, it was improved in 1964 and can now accommodate aircraft over 180 tons on an 11,000-ft concrete runway. With equipment similar to Hung-Chiao, it is said to be capable of handling 300 flights a day.⁵³

6.2.3. Peking Central (Capital) International Airport

Peking's Central Airport is now the busiest airport in China. Domestically, 26 cities had direct flights to Peking at the end of 1973. As for international operations, Peking has replaced Shanghai as the gateway airport to China for most airlines. Now, Japan Airlines is the only foreign airline serving Shanghai.

From earlier reports, Peking has an ILS system, but it was built by the Russians and could not be used by the U.S. transports.⁵⁶ It is a non-compatible type, using non-directional beacons. However, no problems had been reported yet concerning any difficulty in landing by the foreign airlines. A later report mentioned that a new Chinese-made ILS system has been installed.³

Central Airport, with an area of 4.2 square-miles, is located 18 miles northeast of the city. It was completed in 1958, with a 10,500-foot runway that is 225 feet wide and a taxi-way 75 feet wide.

Like the other main terminals, the Peking Airport terminal is big and clean. However, there are no gate positions, docking and jetways. Airplanes park on the ramp and passengers walk to the terminal. Except in ~~very~~ rare occasions then that passengers are bused.

TABLE 6-3

AIRPORT INFRASTRUCTURE AND GROUND APPROACH FACILITIES

<u>Airport</u>	<u>Infrastructure</u>	<u>Ground approach facilities</u>
Peking (Central)	1 runway 3,200 m. long (10,500 ft)	1 TWR, 1 test ILS 3 MF beacons at each QFU on the runway centerline
Shanghai (Hung-Chiao)	1 runway 3,200 m. long (10,500 ft)	1 TWR, 2 test ILS at each QFU 3 MF beacons at each QFU on the runway centerline
Canton (Pai-Yun)	1 runway 3,380 m. long (11,000 ft)	1 TWR, 2 test ILS 2 MF beacons at each QFU on the runway centerline

The ILS approach procedures are not published*

Alternate Airports

-Taiyuan (Wusu) (Peking's alternate airport) (industrial center)	1 runway 2,5000 m. long (8,200 ft)	1 TWR 3 MF beacons
-Hangchow (Chien Chiao) (Shanghai's alternate airport) (tourist center)	1 runway 3,2000 m. long (10,500 ft)	1 TWR 2 MF beacons at each QFU on the runway centerline

Source: Payen, Christiane, The Opening-Up of China to International Air Transport, ITA Study Report 1974/3-E-Reference 3.

* An interesting account of landing procedures can be found in reference 56.

6.2.4 Other Main Airports

Airports at Hangchow, Wuhan, Nanning, Kunming and Shenyang are also adequate for commercial jet services. They have been used as an alternate airports for the three international airports in Peking, Shanghai, and Canton.

Other main airports listed in Table 6-1 are big enough to handle aircraft like IL-18s. In general, these airports were used by both the military and commercial aircraft.

Comparing the airport locations in Figure 6-1 with the route map of CAAC in Figure 5-1, one can see that CAAC have not started scheduled flights to all the main cities yet. In fact, a substantial proportion of CAAC traffic is still non-scheduled service, especially freight traffic and some special duty flights.

Besides the main airports, almost all the people's communes have a landing strip for small aircraft like the AN-2. They have no lighting facilities and all aviation activities on these fields are VFR traffic.

6.3 Navigation Aids

Before 1972, navigation aids in China were essentially consisted of non-directional beacons only, with all but one working VOR at Wusih. There were no DME facilities and most of the traffic, especially at the regional airports, were VFR flyings.

Sources from Pakistan International Airlines indicated quite a few Navigation Aid Stations are working in China (see Table 6-3), although some of them have fairly low power and are hard to pick up. Surveillance radars at Peking and Shanghai have a range of 150 miles. The locations of the traffic control stations are shown in Figure 6-2.

However, even when the air traffic control facilities were at a minimum in China, according to pilots who had flown to China, navigation aids and communications are adequate for what appears to be a very low level of activity. Besides, despite a lack of sophistication, the system has no major faults that would prevent commercial aviation in the country.

English speaking air traffic controllers are on duty at the three major cities (Peking, Shanghai and Canton) and Kunming. Most instructions were given in terms recommended by ICAO. The only setback being the use of the metric systems (km.) instead of using miles to report distance and wind velocities.

Chinese technicians were extremely efficient in nearly all areas of control, communications, weather and ground serving, according to the pilots.⁵⁶

From a more recent report³, navigation aids had been upgraded since the opening-up of China to international traffic. VOR facilities were

TABLE 6-4

CHINESE NAVIGATION AIDS AVAILABLE
(1964)

<u>Station</u>	<u>Coordinate</u>	<u>Service</u>	<u>Call Sign</u>	<u>Frequen- cy (k c/s)</u>	<u>Type of Emission</u>
Chaoko- Chuang	30 96 N 116 35 E	NDB	YK	528	A1
Chehfang	24 16 N 98 17 E	NDB	RY	495	A1
Fushan	23 03 N 113 03 E	NDB	XK	353	A1
Hsuchow/ Kiulishan	34 17 N 117 10 E	NDB	YU	388	A1
Kanchow	25 49 N 114 55 E	NDB	CM	402	A1
Kaoyao	23 02 N 112 27 E	NDB	BH	317	A1
Kiukiang	29 44 N 115 58 E	NDB	LF	272	A1
Kunming	25 01 N 102 44 E	NDB	AP	214	A1
Kwan- chienchsu	23 45 N 113 22 E	NDB	RZ	390	A1
Kweiyang	26 25 N 106 33 E	NDB	PJ	266	A1/A2
Poseh	23 54 N 106 36 E	NDB	OX	358	A1
Tsinan	36 41 N 116 55 E	NDB	BH	534	A0/A1
Tunchi	29 44 N 118 15 E	NDB	WR	348	A1
Wusih	31 30 N 120 26 E	NDB	MB	355	A1
Yiyang	28 36 N 112 20 E	NDB	FM	365	A1

Source: Ruddick, Gordon, "PIA's New International Links",
Interavia, July, 1964.

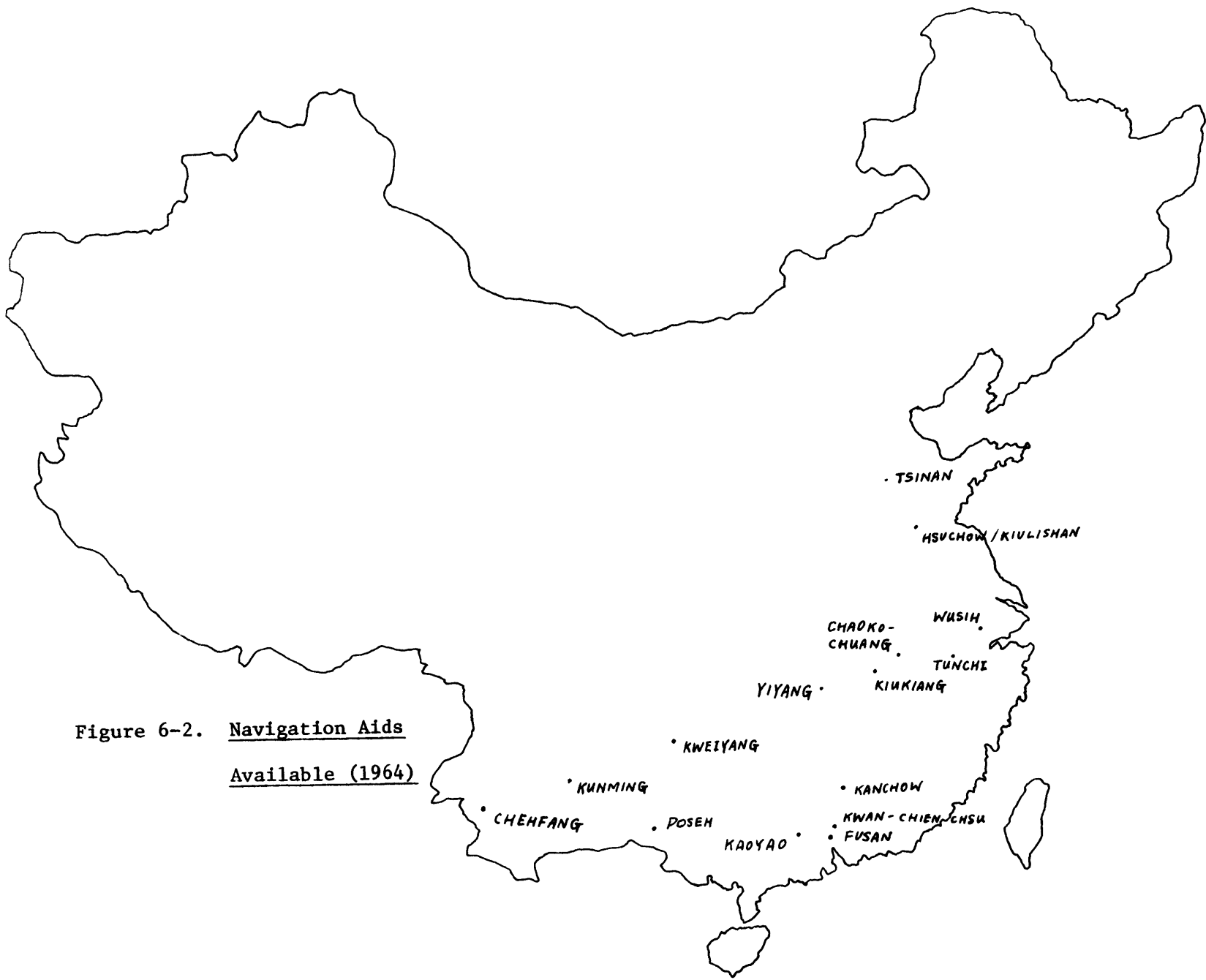


Figure 6-2. Navigation Aids
Available (1964)

installed along the routes of the international flights. In addition, more VOR stations had probably been set up along the main domestic routes too.

Before 1964, there were only radio beacons installed along the extended runway centerline for a few airports. Since the signing of the Sino-Pakistani Air Agreement, landing aid facilities were installed in many other airports. Both the Shanghai Airport and the Canton Airport were equipped with an ILS system made in China and were reported to be working fine with the U.S. transports. Very recently, ILS systems were also installed in the Peking, Kunming and Nanning airports.

CHAPTER 7

CHINA AND HER AVIATION PARTNERS

7.1 Introduction

Back in the 1950's and the early 1960's, China had been quite isolated economically and politically from the rest of the world. Very few Chinese travelled abroad and the country was rarely visited by western industrialist or diplomats.

Only a few of China's neighbours had aviation relations with China. Of this handful of countries, most of them are Communist countries with the mere exceptions of Burma and India.

The agreements signed with Burma, the U.S.S.R., North Vietnam and North Korea were implemented and CAAC had been operating scheduled flights to them since the late 1950's. The U.S.S.R.'s Aeroflot have been the only airline to operate into China for a long time. It had enjoyed virtual monopoly of the market until 1964.

In 1964, Pakistan International Airlines became the first non-Communist country's airline to service China. The inaugural came as a little shock to the world. PIA first operated service to Canton and Shanghai and was refused landing rights at Peking. The reason given by the Chinese government was that the Peking airport was not adequate. However, the Pakistan airline was finally given permission to serve China's national capital in 1972.

Air France was the first western airline to serve China. On September 19, 1966, an inaugural flight was flown, stopping at Tunis, Basrah, Cairo,

Karachi, Calcutta and Saigon, and finally arrived at the biggest city of China - Shanghai. Just like PIA, Air France was not able to get landing permission at Peking at that time; but they did not wait too long. In July 1973, the Chinese gave Air France Peking's 'entry permit'.

Since 1971, there have been an outburst of air agreements between China and the 'outside world'. China seems to be emerging from its state of isolation suddenly and was showing signs of her desire to go into world aviation.

About 30 countries from almost every part of the world had negotiated and concluded agreements with China now. (See Table 7-1) More than half of these 30 agreements were signed during the period of 1972 to 1974. Negotiations between China and a number of foreign countries had all of a sudden become one of the main aspects of world aviation diplomacy.

More and more airlines started to serve China, including Ethiopian Airlines, Japan Airlines, Iran National Airlines, and Tarom - Romanian Air Transport.

As a result, a new distribution of networks in the Far East has been created. Besides the very profitable trans-Siberian route from Europe to the Orient, now, there is a newly formed central-Asian route through Iran, India and China to Japan. Thus putting Asian aviation into a new era.

Both China and Japan will no doubt be playing very important roles in economic development of the region in the coming years. Their geographic locations enable them to earmark themselves as the gateways to the orient. This fact has put them in a very advantageous position in negotiating air bilateral agreements with foreign countries.

TABLE 7-1

CHINA'S AVIATION PARTNERS

<u>Name of Country</u>	<u>Date(s) Air Pact Signed</u>	
1. U.S.S.R.	1954.12.30	1962.12. 1
	1966. 4. 4	1973. 7. ?
2. Burma	1955.11. 8	
3. North Vietnam	1956. 4. 5	
4. Mongolia	1958. 1.17	
5. North Korea	1959. 2.18	
6. Sri Lanka (Ceylon)	1959. 3.26	
7. Laos	1962. 1.13	
8. Pakistan	1963. 8.29	
9. Cambodia	1963.11.25	
10. Indonesia	1964.11. 6	
11. Egypt	1965. 5. 2	
12. France	1966. 6. 1	
13. Iraq	1969.11. 7	
14. Albania	1972. 3.28	
15. Romania	1972. 4. 6	
16. Yugoslavia	1972. 4.14	
17. Afganistan	1972. 7.26	1963.11.24
18. Ethiopia	1972. 7.30	
19. Turkey	1972. 9.16	
20. Iran	1972.11.18	
21. Italy	1973. 1. 8	
22. Norway	1973. 5.12	
23. Denmark	1973. 5.18	
24. Greece	1973. 5.23	
25. Sweden	1973. 6. 1	
26. Canada	1973. 6.11	
27. Great Britain	1973. 6.13	(provisional)
28. Switzerland	1973.11.12	
29. Syria	1974. 2. ?	(provisional)
30. Japan	1974. 4.20	

The recent signing of a trilateral air agreement by CAAC, Air France and Japan Air Lines will probably put these three airlines in a monopolistic position of the Europe-Asia market for a while. It is said that they will soon be opening a twice weekly service each between Paris and Tokyo by way of Peking.

China had been stressing the theory of non-competition on all the air agreements with foreign countries. The service between Paris and Japan will be under pooling agreements. However, to what extent that non-competition can be achieved, nobody can tell yet.

In the next few sections, some important air agreements are discussed along with the background and history of the air relations. Only the main aviation partnerships will be discussed in details. However, the depth of the materials covered would not imply the relative importance of the agreements, but would rather reflect the extent of sources digged up during the period of this study.

7.2 The U.S.S.R.

The Russians have been a long time aviation partner of the Chinese. A very comprehensive coverage of their early relationships can be found in Chapter 4 of this thesis. Here, only the details of the air agreements between the two countries are discussed.

7.2.1 The First Air Agreement in 1950

The first negotiations between Communist China and the Soviet Union on civil aviation took place in 1950. An "Agreement on the Establishment of a Joint Sino-Soviet Civil Aviation Company" was concluded on March 27, 1950. In accordance with this Agreement, the Sino-Soviet Joint Aviation Company (SKOGA) was created. The company was supposed to be formed on the principle of "equal rights and partnership", with the express purpose of fostering the development of civil aviation in Communist China and strengthening the economic cooperation and cultural exchange between Communist China and the Soviet Union. The following three air routes were started and operated by the company as a result of the agreement:

- (1) Peking-Chita;
- (2) Peking-Irkutsk; and
- (3) Peking- Alma Ata.

SKOGA was finally dissolved in 1954 and was taken over by CAAC.

7.2.2 The Scheduled Air Service Agreement of 1954

On December 30, 1954, an "Agreement between the Government of the People's Republic of China and the Government of the Union of Soviet Socialist Republics Concerning the establishment of Scheduled Air Service Between China and the Soviet Union" was signed in Peking by Wu Fa-hsien, head of the Communist Chinese Delegation and S. F. Zhavoronkov who led the Delegation of the Soviet Union.¹² The principal provisions of the Agreement are summarized as follows:

1. Three air routes:
 - (1) Peking-Moscow,
 - (2) Urumchi-Alma Ata, and
 - (3) Peking-Chita

were to be opened for the transporting of passengers, baggage, goods and mail by civil aircraft of the Contracting Parties.

2. The civil aviation authorities of the Contracting Parties would negotiate and conclude a separate agreement concerning technical problems related to the operation of the routes.

3. While in the territory of the other Contracting Party, aircraft of one Contracting Party, its flight personnel and the passengers, goods and mail carried would be subjected to the laws and regulations of the other Contracting Party.

4. All previous treaties on air transport between the Contracting Parties were repealed.

5. The Agreement was to enter into force on the day it was signed

and would remain in force for five years. An extension of five years would be automatic unless notice had been given six months prior to the expiration date by either Contracting Party to the other Contracting Party of its desire to terminate the Agreement.

The agreement was actually a result of an earlier agreement in which the Russians promised to hand over all the assets, securities and administrative authority of SKOGA to China. However, as CAAC was still in its beginning stage with very poor and old equipment, only the Aeroflot had really implemented the agreement. For a long time, the market between Moscow and Peking was handled totally by Aeroflot.

7.2.3 The Sino-Soviet protocol of 1962

A Sino-Soviet protocol on the mutual provisions of service and air transport by the Civil Aviation Administrations of the two countries was signed in Peking on December 1, 1962.²⁰ Three routes were agreed upon between Communist China and the Soviet Union:

- (1) Peking-Harbin-Irkutsk-Moscow;
- (2) Peking-Ulan Bator-Irkutsk-Moscow; and
- (3) Peking-Urumchi-Alma Ata-Moscow.

The main objective of the agreement was to include the industrial area of Manchuria and also Outer Mongolia in the Moscow-Peking air network.

7.2.4 Recent Agreements

A second agreement on air transport was signed at Moscow in April 1966 replacing the one signed in 1954.²³ Soviet aircraft continued to serve Peking and China operated service to Irkutsk, where connections were made with Aeroflot to Moscow.

In July 1973, a new air agreement was signed and China agreed to establish services to Moscow. A firm date for the new service was not announced, but Soviet-made IL-62 was thought to be the aircraft China would use.*

As of the end of 1974, CAAC, however, had not implemented its right to operate regular service to Moscow. Aeroflot, on the other hand, is now operating a weekly non-stop flight between the capitals of the two countries.

* Aviation Daily, July 18, 1973 - Reference 78.

7.3 Pakistan

The aviation partnership between Pakistan and the People's Republic of China came as a surprise to the Western world in 1963. The Sino-Pakistani Air Agreement was the first of its kinds to be signed by the PRC with a non-Communist country. It marked the first sign of China's intention to go into world aviation.

7.3.1 Factors Underlying the Agreement

After the breach with the Russians in early 1960's, almost immediately, China found herself practically isolated from most of the outside world.

With the increased demand in foreign trade and the need to get a world recognized stand, it was quite understandable that China's government was fairly eager to look for some way of getting out.

Pakistan was chosen as 'the country' probably for the following reasons:

A. Geographic: Being China's southwestern neighbor, Pakistan's advantageous geographic location would allow it to serve as a gateway for CAAC's expansion to Europe and Africa. Dacca is an ideal stop-over spot for routes from China to South Asia while Karachi is on the way from China to Africa and Europe.

B. Political: Pakistan is a non-Communist country. It had diplomatic and air relationships with many of China's "enemies". However, unlike many other non-Communist governments, Pakistan had not shown any hostilities towards the PRC. Moreover, it was one of a few countries in Asia not dominated by other foreign Big Powers. Consequently, Pakistan was an ideal country with which the PRC would like to start air relations; with the consequence that an indirect bridge would then be set up between the PRC and the anti-Communist countries.

C. Technical: The fact that Pakistan had a spit-and-polish airline -- the Pakistan International Airlines, that ranked as No. 2 in Asia, just behind JAL, had certainly gained for Pakistan the edge on other Asian countries in that area. With PIA, Pakistan would be able to provide good air service to and from the PRC. Furthermore, PIA can introduce to China non-Soviet-made equipment which China then was thinking of buying. In addition, PIA would take up some of the gap left by Russia's airline technicians and provide the necessary technical assistance.

As for the Pakistan side, in the middle of 1963, PIA's management unhappily decided to withdraw from the glamorous and prestigious North Atlantic route which PIA had opened in June 1961, because of the low load factors recorded on that service. Consequently, PIA was prepared to launch into new and more profitable areas.

The outcome, as we all know, has been the signing of the Sino-

Pakistani air agreement and the subsequent introduction of the outside world's first truly international airline service into the hitherto tightly-sealed People's Republic of China at the end of April, 1964.

7.3.2 The Agreement

In the summer of 1963, talks between CAAC and PIA started, aiming originally at linking local services. However, because of the factors mentioned above, the talks were rapidly led to a full-scale agreement covering international services between Pakistan and China.

The agreement was signed at Karachi on August 29, 1963, with the stipulation that "aircraft operated by airline companies of both countries may fly within each other's territory", and "both sides are obligated to provide at designated points in each other's countries navigational facilities to ensure smooth operations of aircraft".²¹

The United States reacted immediately, raised questions about the legality of PIA taking Boeings into China.⁵¹ (One can hardly imagine at that time that ten years later, 10 Boeing 707s would be sold to the PRC from the Boeing Company with the permission from the U.S. Government.) Following some negotiations, the U.S. eventually agreed that up to \$500,000 worth of Boeing spares could in fact be stocked in China if retained under strict Pakistani control.

7.3.3 The Inaugural Flight

Under the full cooperation of the Chinese Government, in spring 1963, a PIA survey team was sent to investigate the routing and a trial flight flown on April 26, 1964. Three days later, the new Karachi-Dacca-Canton-Shanghai route was inaugurated using a Boeing 720B. The aircraft carried 16 crew and 113 still-slightly-surprised passengers, including European and Pakistani journalists, photographers, businessman and Pakistani officials, in a six-abreast all-first class layout (Normal service has a 20 first/96 economy seat cabin layout)

7.3.4 Initial Service

Initially PIA operated only one weekly service on the route, but by the end of the first year, frequency was stepped up to 2 flights a week.

Very interestingly, for political reasons, the London-Shanghai route was scheduled as three separate flights: PK702 London-Frankfurt-Beirut-Teheran-Karachi; PK728 Karachi-Dacca; and PK750 Dacca-Shanghai; but that was practically a direct service with 90 and 70-minute stops in Karachi and Dacca. The total journey time for the 7,300 n.m. route was only 23 hours and 25 minutes.

Initial routing was on a dogleg around the south of Indian territory before going east across Burma to cross the Chinese border because of India's refusal to grant overflying ~~right to~~ PIA. PIA was required to ~~hold~~ a 20 Km. corridor along the main ~~route,~~ and 10 Km. at the frontier

crossing and at the Canton and Shanghai approaches. At the beginning, only a number of non-directional beacons were available along the route, but this situation was soon improved. Today, it is reported that VOR stations have been set up along the flight routes.

7.3.5 Recent Development

As a result of the India-Pakistan war and the breakaway of East Pakistan, the Karachi-China service, via Dacca, had to be re-routed through Colombo, adding an uncompetitive two hours and 1,000 miles to the run. However, the Chinese reacted to this and early in 1973, landing rights in Peking were granted to the Pakistan airline. As a result, the Karachi-Colombo-Canton-Shanghai service was discontinued as of January 20, 1973, and was replaced by a more direct routing to Peking via Islamabad.

At the end of 1974, the routing of the China-Pakistan service for PIA was Karachi-Rawalpindi-Peking, flying twice a week with Boeing 707s. However, PIA no longer monopolize this market. Both Air France and TACOM offered non-stop service between Karachi and Peking. The importance of Karachi stays undiminished and is still regarded as one of the main entry points to mainland China.

7.4 France

It was not until January 27, 1964 that the French government and the People's Republic of China's government decided to establish diplomatic relations, whereas some other European countries like the United Kingdom had recognized the Peking regime as early as 1950.

However, Air France had become the first Western airline to serve Communist China.

7.4.1 The Inaugural and Initial Service

Following an air agreement signed at Paris on June 1, 1966, Air France inaugurated a weekly Paris-Shanghai service on September 19 of the same year. The aircraft used was a Boeing 707-328 jet transport. Initially, the flight would leave Paris on Monday mornings at 11 A.M., and arrived at Hung-Chiao Airport in Shanghai at 2:40 P.M., the next day, making stops at Athens, Cairo, Karachi, and Pnompenh on the way. Connections from Shanghai to Peking were made on the high-frequency route flown daily between the two cities by CAAC IL-18 turboprop transports. CAAC flight CA054 left Hung-Chiao every Tuesday afternoon at 4:50 P.M. and was scheduled to arrive in Peking at 7:10 P.M., so a Chinese diplomatic passenger or a French businessman could travel halfway around the world from Paris to Peking in a little over thirty-two hours. The Air France jet started back for Paris the same night it arrived, so a returning visitor would leave Peking on a Tuesday afternoon on the daily 1 P.M. flight to Shanghai, arriving at Hung-Chiao at 3 P.M. The Air France Boeing left Shanghai at

5:30 P.M. and arrived at Orly Airport in Paris on Wednesday at 9:30 P.M.²

7.4.2 Later Developments

On January 23, 1972, a second "accelerated" weekly flight was added to the route. Shanghai remained the final destination in China. All through this period of time, Air France was trying to get access to Peking, but were without success. The apparent reason given by the Chinese government was that Peking was not prepared for international operations. Actually, the Peking airport was at that time only equipped with Russian navigation systems that were incompatible to the Western systems used by Air France.

In May 1973, Air France and the Civil Aviation Administration of China signed an agreement under which Air France would put its telecommunications network at the disposal of the CAAC for transmitting and receiving outside of the People's Republic of China. CAAC would in return provide the same service for Air France within China.*

In September 1973, following negotiations on aviation matters between the Chinese and French governments, Air France was given the right to serve Peking and the Paris-Shanghai service was extended to terminate at the national Capital of China.

By the end of 1973, Shanghai was dropped from the route and Peking became the terminal and only Chinese destination of the flights.

In April 1974, the two stops at Cairo and Rangoon were dropped,

* From Aviation Week and Space Technology, May 13, 1974, p.29.

allowing Air France to fly the route from Paris to Peking with only 2 intermediary stops on one flight and only one on the other. (Routings are Paris-Athens-Karachi-Peking and Paris-Karachi-Peking for the two flights.)

7.4.3 Chronology and Operating Data

The Director General of Air France, Mr. Pierre D. Cot has been kind enough to supply a chronological table of the different stages of Air France flights to China since the beginning up to April 1974. The table is shown in Table 7-2.

TABLE 7-2

CHRONOLOGY AND OPERATING DATA OF AIR FRANCE'S SERVICE TO CHINA

(September 19, 1966 to April 1, 1974)

<u>Period</u>	<u>Freq. of Service</u>	<u>A/C Type</u>	<u>Seating Config.</u>	<u>Route</u>	<u>Remarks</u>
<u>1966</u>					
From 9/19 to 12/31	1/7	B.707	24F 120Y	PAR/ATH/CAI/KHI/PNH/SHA	Opening initially scheduled for 4/1 but put off till 9/19
<u>1967</u>					
From 1/1 to 12/31	1/7	B.707	24F 120Y	Same route as above	
<u>1968</u>					
From 1/1 to 12/31	1/7	B.707	24F 120Y Until 4/1 After 4/1 20F 126Y	Same route as above	
<u>1969</u>					
From 1/1 to 12/31	1/7	B.707	20F 126Y	Same route as above	
<u>1970</u>					
From 1/1 to 12/31	1/7	B.707	20F 126Y	Until 5/1 same route as above From 5/1 stop in PNH replaced by tech. stop in Dacca	Consequence of the extension of war in Vietnam
<u>1971</u>					
From 1/1 to 12/31	1/7	B.707	Winter 20F 122Y Summer 16F 128Y	PAR/ATH/CAI/KHI/DACCA/SHA (Dacca technical stop)	KHI momentarily dropped as a stop due to war between Pakistan and India for the whole duration of fights.
<u>1972</u>					
	2/7	B.707	20F 122Y	-1/1 to 12/31:1/7 PAR/ATH/CAI/KHI/RGN/SHA -1/23 to 12/31:1/7 PAR/KHI/RGN/SHA	Dacca technical stop replaced by normal stop in Rangoon Second "accelerated" flight
<u>1973</u>					
	2/7	B.707	20F 122Y	1st Freq.:1/1 to 9/22 PAR/ATH/CAI/KHI/RGN/SHA 9/23 to 12/31 PAR/ATH/CAI/KHI/RGN/PEK 2nd Freq.:1/1 to 9/5 PAR/KHI/RGN/SHA 9/6 to 12/31 PAR/KHI/PEK	Shanghai replaced by Peking as final destination Shanghai replaced by Peking as final destination and stop in Rangoon dropped.
<u>1974</u>					
	2/7	B.707	20F 122Y	- 1/1 to 3/31 same route as above - From 4/1 1/7 PAR/ATH/KHI/PEK 1/7 PAR/KHI/PEK	Stop in CAI and RGN dropped in the 1st frequency and faster service

7.5 Ethiopia

Ethiopian Airlines is the third neutral or western airline that flew into China since 1949, following Air France and Pakistan International Airlines, but it is the first African carrier to penetrate the Mainland.

Air agreement was reached on opening an air service during the visit of an Ethiopian civil aviation delegation in May 1972, followed by formal signature of an accord in Peking on July 30 of the same year. The first inaugural flight took place on February 21, 1973 on the Addis-Bombay-Shanghai route. In so doing, a great step in the development of international aviation of China was reached.

7.5.1 Background for the Development

A. Ethiopia's desire to extend its international air network

Ethiopian Airlines has always been ranked as one of Africa's leading air carriers. From its strategically located Addis Ababa base in East Africa, it has a good chance to be the major Africa-China airline for some time.

From Ethiopia's side, the decision to try for China was just one of a number of steps by Ethiopian's management towards establishing gateways outside Ethiopia for drawing traffic into that nation and the rest of Africa. The airline had had success in doing this in Europe, the Middle East and the subcontinent.

Success is measured best in profits. Until 1973, Ethiopian had been

profitable without government subsidy for 17 of its 27 years. In 1971 Ethiopian had a \$1.19 million profit, and in 1972 this was more than doubled to \$2.53 million.

However, the advanced gateway program had been limited in the Orient by politics and general world conditions. In 1973, Ethiopian's general manager, former Air Force Lt. Col. Semret Medhane, admitted that when the China route was first considered nearly five years before then (i.e. around 1968), "it was a daydream".⁴⁹

1) Political Position and Geographical Advantages

Still, the Ethiopian management felt even then that the airline might have a good chance at the route because of its government's neutral position between the superpowers. Another factor was China's growing interest in Africa, and a look at a map shows that Ethiopia makes an excellent gateway from China to the rest of Africa.

2) Established Airline Route System

The geographical advantages of Ethiopia are enhanced by the airline's route system, which covers most of the African nations, more than that of any other African carrier. Good connecting service is provided through Addis Ababa; this was demonstrated by the Ethiopian inaugural flight to China, which originated west of Ethiopia from Lagos, Nigeria.

B. China's Interest in Linking with Africa

By 1972, China had gradually built up a substantial domestic network and was putting more attention to the development of international aviation in and out of China.

At that time, China had already established diplomatic relations with many of the African countries. Thousands of Chinese engineers, construction workers, agricultural advisors, medical doctors, and other technical personnel had been sent to the African countries to help in various projects. Supporting this considerable work force would require a better transportation system between China and Africa, and the establishment of the air route was the best solution.

7.5.2 The Negotiations

The potential of the China route and Ethiopian Airlines' possible advantages over another airline might be readily evident to some, but securing the route from the People's Republic of China government was a challenge to Ethiopian Airlines.

During the negotiations, there were many surprises to the Ethiopians. They arose not from the length of time the Chinese government took in deciding whether or not Ethiopian should fly to China (that took a long time), but from how accommodating the Chinese were once they decided to let the African airline in.

The big decision took years, reflecting the carefulness of the Chinese government. Nevertheless, the actual route and service pattern negotiations

took only half a day! This occurred despite the fact that there were potential political barriers to many of the routing and service issues.

Obviously, behind the scene, the Chinese government must had a thorough study of the consequences of the connection. They had probably anticipated all the problems and were sured how to solve them before they said yes to the Ethiopians.

The first concrete exchanges on a possible China route for the Ethiopians were made in 1971, when Ethiopia's former Imperial Majesty Haile Selassie (who had then total control of the country) made a state visit to China. It was felt that the actual decision to allow Ethiopian in was made by Premier Chou En-lai later that year. The Ethiopian delegation, including Semret, went to China in the spring of 1972 to negotiate the routings and service patterns.

The chief negotiator for the PRC was Quang Jen Num, Director General of the Civil Aviation Administration of China. However, it was generally believed that everything was being cleared with Premier Chou En-lai during the negotiations.

A. Potential Problems

Two major potential problems with Ethiopian's requirements involved delicate political issues. First of all, for the route to make any economic sense, India must be an intermediate point, and the route must be extended beyond China to Tokyo. The PRC was not fond of India and even Japan at that time, but full operational authority to both nations was finally granted to Ethiopian Airlines.

Another potentially touchy issue was the way the route was to be flown. This was a delicate multinational problem involving both India and China. Ethiopian wanted to serve Bombay as the intermediary point in India, then fly straight overland across India, Bangladesh and Burma into China. Having to circumvent any of these countries would have made the route a problem operationally for Ethiopian Airlines. However, the problem was solved when the People's Republic of China granted all the border crossing rights that are required. Ethiopian's initial capacity allotment was three flights per week to Shanghai, and the Ethiopians started the service with a weekly operation.

In addition to the routing problem, the treatment of passengers along that route was also a tricky point. The Chinese government, however, allayed all fears in this area by granting unlimited traffic rights, including China-Japan traffic, and promising safe conduct for all passengers. This, ".....included Americans."

B. Setbacks for Ethiopian

The successes of Ethiopian, however, were offset by some setbacks in the negotiations. Ethiopian wanted to serve Peking, but were refused by the People's Republic of China. The reason given being that the Peking Airport was inadequate. However, Ethiopian Management were optimistic about this. They felt authority to serve Peking might be granted later just like the case for PIA. (They were right and Ethiopian Airlines was given the permission to serve Peking instead of Shanghai soon after the regular service was started.)

Another issue that Ethiopian lost was the makeup of crew complement. Ethiopian had up to ten American captains at that time, most of whom had helped start the airline in 1946 under the management of Trans World Airlines. The People's Republic of China refused to let these captains fly into China. Ethiopian also had foreign hostesses comprising about 20% of its hostess staff, and the usual practice was to have at least one on each international flight. The PRC insisted that all the hostesses must be Ethiopians.

The Ethiopians reacted with a request for Chinese hostesses to serve on the flights. This, too, was refused. Apparently, the reason given was that there were not many CAAC hostesses who could speak English.

7.5.3 The Inaugural Flight

The inaugural flight on February 21, 1973 was diverted from Shanghai because of heavy fog, and was directed to land at Canton. Conditions were not great at Canton either, with a 300-ft ceiling and 1.3-mile visibility. Moreover, none of the Ethiopian crew had ever seen Canton before. There were, however, no problems about the landing.

The inaugural flight was later permitted to proceed on to Shanghai. Then, the Chinese government started a seven-day program for the guests. They were taken from Shanghai to Peking on a CAAC IL-62 flight, from Peking to Hangchow on an IL-18 and from Hangchow to Shanghai again on an IL-18. The Chinese government paid for all the expenses. In return, the Ethiopians invited 150 Chinese to Addis Ababa on the return trip of the inaugural flight for a week-long stay in Ethiopia. Had all 150

invitations been accepted, the costs would have been reciprocal. However, China only sent 30 people to Ethiopia. Nevertheless, they paid their end of the arrangement.

7.5.4 Prospects of the Route

Ethiopian Airlines officials were encouraged by the cooperation from CAAC in planning and carrying out the inaugural program. But when things calmed down after completion of the inaugural, they were guarded about the prospects for profit over the Addis Ababa-Bombay-Shanghai route, at least in the short term.

According to earlier Ethiopian management's calculation, the break-even passenger load over that route would be from 25 to 30, depending on the cargo load. So far, traffic has been mostly business and government passengers. China had numerous interests in Africa, and have been sending their people thereon Ethiopian because CAAC does not fly to Africa. There have also had cargo traffic from China to support operations and projects in Africa. On the other direction, numerous African officials and businessmen are travelling to China by Ethiopian Airlines.

Now, with Peking replacing Shanghai as the terminal point of the route, and a possible chance of extending the service to Tokyo, this link between China and Africa is having a bright future.

However, the tourist business does not look too promising in the short term, as there are not enough facilities in China for large numbers of foreigners, especially tourists. Hotel space still are inadequate, inter-

pre-ter staffs are small, and there is substantial evidence that China do not have the profit motive associated with development of a large tourist program. Hence, unless there is a change in national policy, tourist traffic will stay as a negligible element on this route.

7.5.5 Summary

Both governments felt that it will take time for the route to develop. But they were confident that the long term will be very good. The route from China to Ethiopia means a lot for both China and Ethiopia. On one hand, it gives China a gateway to Africa. On the other, it gives the Ethiopian Airlines a monopolistic link between the two countries.

However, with the recent Coup d'etat in Ethiopia, it will be difficult to foretell the future prospects of the route as nobody can tell whether there will be any changes in foreign relations between the two nations.

7.6 Japan

As early as 1972, there had been numerous rumours in the press that a full diplomatic relationship and an air agreement between the People's Republic of China and Japan would be imminent. Japan Airlines President Shizuo Asada even paid a visit to Mainland China in mid-August of that year. Also, a survey flight from Tokyo to Shanghai by a Japan Air Lines DC-8 was flown in August 12. The survey flight was in preparation of operating a charter flight for a PRC ballet troupe that was touring Japan back to the Mainland.

As it turned out, the People's Republic of China and Japan did succeed to establish diplomatic relations; but their air bilateral agreement took almost two more years to come true. During these two years, news that the air agreement would be signed soon or even had been signed were found in many of the aviation publications. More than once, the Foreign Minister of Japan Masayoshi Ohira openly told the press about the "coming-too-soon" news. Nevertheless, the agreement was finally concluded on April 20, 1974, with a lot of difficulties and also important consequences.

7.6.1 Background of the Air Agreement

According to the August 30, 1972 issue of Aviation Daily, Japanese government was determined to reach a bilateral air agreement with the PRC if that would open scheduled air service between the two countries, as said by Japanese Transportation Minister Hideo Sasaki. He said, "I am

prepared, if necessary, to visit China for talks on the opening of such a service."

Even earlier, he told a meeting of the Lower House Committee on Transportation at Japan that an exception to present policy of JAL serving international routes and All Nippon serving domestic and short-haul charter routes would have to be made if Chinese authorities agree, as both JAL and ANA would very much like to serve Mainland China.

On the other hand, the PRC was certainly eager to open up the eastern side of its air space so that CAAC could operate regular service to North America and even round the world.

However, although the two countries were determined to establish the air agreement, yet there existed many potential problems that had to be overcome.

A. Relations between Japan and the Nationalist Government

Although back in September 29, 1972, Japan had already broke off diplomatic relations with the Nationalist Government in the island province of Taiwan, there were still very close business relations between them.

The route between Taipei and Tokyo was the second most profitable route of Japan Air Lines, just next to the Tokyo-Honolulu service. Every year, it brought in a substantial amount of revenues for both Japan Air Lines and the China Air Lines. Besides, the Flight Information Region at Taiwan is in between Japan and Southeast Asia.

The Nationalist government had been very clear on this issue. Very

early before the air agreement was signed, the Nationalist government told Japan that it would cut off all air links with her, that would include the banning of all Japan aircraft over the Taiwan Air Space, if the agreement between Japan and the PRC came into being.

For Japan Airlines, then, it would mean not only a loss of a very profitable route, but would also imply a probable loss of business to the other parts of Asia, as the Japanese flights would have to make a big detour around Taiwan in order to go to Southeast Asia and on. Consequently, they had been very careful about this issue and were more or less against anything that would make this happened.

This situation placed the Japanese government in a very difficult position. In the long run, they could foresee many good prospects if the air agreement could be established. On the other hand, they could also have to take the short run consequences.

B. Domestic Oppositions in Japan

Domestically in Japan, its right wing, led by the "young hawks" in the Seirankai group, intensified the whole confrontation. They threatened to blame the Japanese Government and bolt their positions in the ruling Liberal Democratic Party if the Nationalists broke off air connections between the countries.

The Japanese right wing, in addition to being long-time friends of the Nationalists, had its own reasons for wanting to use the aviation issue to dump Foreign Minister Ohira, a liberal contender to become the

next LDP leader and prime minister of Japan.

Moreover, Premier Kakuei Tanaka's chief political rival, conservative Finance Minister Takeo Fukuda, openly opposed Japan's move towards the PRC. Hence building up a great pressure on Prime Minister Tanaka. (As it turned out, Mr. Tanaka was finally forced to resign late last year. Although the reasons given were mainly because of Japan's inflation and also his own manipulation of his personal wealth, yet the break-off of air relations with the Nationalists was the main dysfunction of his downfall.)

C. Demands From the Communists

Originally, the Peking government insisted on banning the Nationalist flag carrier, China Air Lines, from landing at Japan. As the negotiations went on and on, this condition became a deadlock.

The Communists' reason behind it is their "one-China" principle, and of course they only recognized CAAC as "the only China's only flag airline".

Finally, this deadlock developed into three basic demands:

- (1) the termination of the air agreement between the Nationalists and the Japanese governments.
- (2) all aircraft of China Air Lines flying to Japan must no longer use the same name and all markings of the Nationalists flag must be removed.
- (3) No Nationalists ground staff would be allowed to stay at Japan.

7.6.2 The Air Agreement

The important terms of the air agreement were reached in early 1974 and the formal signing was held in Peking on April 20 that year.

The chief barrier to the accord was the Chinese insistence that flag service between Japan and China be discontinued. This difference was resolved with the following solutions:

(1) Routes between Taiwan and Japan would be retained, but they would be operated under a commercial trade agreement and not a formal government-to-government bilateral agreement.

(2) The Japanese government would no longer recognize China Air Lines as China's flag carrier, and also would call that airline "China Airlines - Taiwan".

(3) Chinese (Communist) flag carrier, CAAC, would serve the new Narita International Airport at Tokyo, and until Narita is opened, both CAAC and "China Airlines - Taiwan" would serve Haneda, but schedules would be controlled so that neither airline would be on the Haneda airport at the same time.

(4) CAAC would also be allowed to serve Osaka, Japanese trade center for the Far East. Both Japan Air Lines and All Nippon Airways were in return given the rights to serve both Peking and Shanghai.

(5) Japan would handle all ground operations for China Airlines, but CAAC would be allowed to man its stations in Japan with its own personnel.

(6) The two governments granted each other certain service points

beyond their territories. Japan was authorized to serve Rangoon, Karachi, Teheran and even Europe by way of Peking; for the People's Republic of China, CAAC would have the operating right through Tokyo to North America.

7.6.3 The Consequences

The Nationalist Government reacted very strongly to the signing of the agreement and immediately announced the cutting off of all the air links with Japan. In addition, Japan Air Lines was given a 24-hour limit to pack up everything and would not be allowed to fly over the Taiwan air defense identification zone after the 24 hours.

Consequently, Japan's airline was seriously hit. All the JAL offices in Taiwan were closed down and also the flights now between Tokyo and Southeast Asia are diverted from Formosa. In fact, the Nationalists were so bitter that it was said that any Japanese aircraft found in the Taiwan air defense identification zone would be treated as "unidentified flying objects" and would be forced to land or shot down.

In addition to losing this very profitable route, the detour around Taiwan also caused some loss in business; which together with the energy crisis put JAL's last year business to a huge loss.

However, the Japanese government heralded the agreement reached as a major diplomatic success. They immediately planned regular scheduled service with the PRC.

On September 29, 1974, Japan Air Lines inaugurated the route between Tokyo and Peking. The date was chosen to commemorate the 2nd anniversary

of the two countries' renewal of diplomatic relations.

Back in Japan, a big political turbulence occurred soon after the inauguration and Japan now has a new Prime Minister. But the air agreement stayed and rumours that the air connections between Tokyo and Taipei will be resumed never materialized.

As for the Nationalists, China Air Lines now flies to the United States via Guam. They were well prepared and negotiations with the United States were carried out before the signing of the air agreement between the PRC and Japan.

7.6.4 The Tokyo-Peking Link

Japan Air Lines inaugurated the air link on September 29, 1974 with a DC-8 flight. There were 83 guests from Tokyo and 13 guests from Osaka, making a total of 96 delegates on the inaugural flight.

The flight departed from Haneda Airport in Tokyo at 10 A.M. and flew directly to Peking, PRC's capital; arriving there some time after 2 P.M.

At the same time, CAAC flew a delegation of 98 members with a Boeing 707 from Peking to Tokyo, using approximately the same flying time of four and half hours.

Japan Air Lines started regular service immediately after the inaugural, but CAAC did not start scheduled flights until November of 1974. The flying time between Tokyo and Peking is about 4 hours 25 min. and the flying time between Shanghai and Osaka is about 2 hours and 35 min.

Japan Air Lines' business ended up in red figures in the first few months of operations. However, the management of JAL are still looking for a good change in the future.

The signing of the trilateral agreement by JAL, CAAC and Air France in January, 1975 would probably put the link into a better position. All the three airlines will be benefited by this inaugural of Central-Asian route between Europe and Japan.

7.7 Other Countries

The establishment of air relations with the other countries will be discussed below. The countries are listed in alphabetical order. However, due to the limit of sources, some discussions have to be really brief.

7.7.1 Afghanistan

After initial exploratory talks in November 1963, a civil air Transport agreement was finally signed in Kabul on July 26, 1972. While agreement was reached on the desirability of an air link, details regarding flight routes and the date of inauguration of services are to come later. It was believed that Kabul would be used as an intermediary port of call for the Central-Asian route. However, from the situation now, Teheran and Karachi had probably made the stop-over at Kabul unnecessary.

7.7.2 Albania

Albania is a long-time ally of the People's Republic of China. There have been rumours that a regular scheduled service would started soon for a long time. As yet, nothing have materialized.

The air agreement on civil air transport between the countries was signed in Tirana on March 29, 1972. But it seems likely that the service between the two countries will have to wait until CAAC start its

Europe-Asia regular flights.

7.7.3 Australia

The People's Republic of China and Australia had been having talks on the possibility of establishing an air service in the summer of 1973. Apparently, the negotiations failed to reach an air agreement because very low traffic load would be expected on this route. However, Australia remained as a potential aviation partner to China because of its geographical location and its potential for developments. Especially when the Concordes come out to the market , a Sydney-Peking (or Shanghai)-London route will change the whole picture.

7.7.4 Burma

Negotiations relating to the establishing of civil air transport service between Communist China and the Union of Burma were held in Rangoon in 1955. As a result, the "Air Transport Between the Government of the People's Republic of China and the Government of the Union of Burma" was signed on November 8 of the same year.

On the basis of this agreement (Appendix 4), scheduled civil air transport services were inaugurated on April 11, 1956. This marked the first time CAAC operated regular services to a non-Communist country.

These service was hailed by the PRC as an outcome of the adoption by the parties concerned of the "Five Principles of Peaceful Coexistence"

and as a concrete evidence of their mutual trust, assistance and cooperation.

Until now, CAAC still operates one weekly jet service between Rangoon and Kunming.

7.7.5 Cambodia

The Chinese Communists and Cambodia signed at Phom Penh on November 25, 1963, an air transport agreement.

On the basis of the agreement, regular air services were established between the two countries in 1964. Royal Air Cambodge was flying DC-6s on a Pnom Penh-Canton route. However, the service was interrupted in 1970 when Prince Sihanouk was ousted from Cambodia.

The present Cambodian government is anti-communist and even diplomatic relations had been cut off. Recently in the United Nations, the issue of restoring Sihanouk as the ruler of Cambodia failed by a small margin, ending the hope of restoring air service at the same time.

7.7.6 Canada

CP Air representatives had been visiting Peking for years, but it was only in May, 1972, that official negotiations for regular service between the two countries began in Peking. An initial agreement was reached and the final agreement signed on June 11, 1973.

However, a dispute flared in Ottawa between officials who wanted to award the route to the government-operated Air Canada and those who

saw it as rightfully CP Air's.

The dispute was finally resolved in favor of the private carrier, but more negotiations had to be conducted in Peking and Tokyo before an inaugural could be planned.

The biggest obstacle was the refusal of Japan to allow any carrier to fly a China service through Tokyo before their own air links with China were started. But this was eventually solved by CP Air's decision to bypass Tokyo and fly the 5,800-mile Anchorage-to-Shanghai leg non-stop.

Then, technical problems arose on the channels of communications that are to be used to relay flight and weather information between points on the Vancouver-Anchorage-Shanghai-Peking route. However, these, too, were solved soon.

CP Air finally announced to the world that it will inaugurate the China-Canada service on May 4 last year, serving both Shanghai and Peking from Vancouver via Anchorage.

As a surprise move to everyone, the Chinese government revived some previously resolved minor disputes over its bilateral air transport agreement with Canada and forced CP Air to defer its planned inaugural flight. The problems raised were only of a relatively minor nature, concerning such matters as catering services and proposed rates and fares. Beyond that, no reasons have been given for the Chinese refusal to permit the Canadian carrier to begin its scheduled service under the previous arrangements.

This move of China may indicate a shift to more cautious approach to foreign policy. As of today, there is no sign when the China-Canada regular service will come true.

7.7.7 Ceylon (Sri Lanka)

On April 28, 1961, the Ceylonese Air Company made a trial flight from Colombo to Canton; in May, the two countries negotiated over concrete technical and operational questions, and drafted a protocol for opening the Sino-Ceylonese Air Line.¹⁹

The formal air agreement was signed on March 26, 1959. This air agreement has not been implemented.

7.7.8 Denmark

An air pact between the People's Republic of China and Denmark was signed on May 18, 1973. Just a few days before, Norway also signed an air pact with the PRC and the last member of the Scandinavia, Sweden, followed on June 1 of that year.

Although there had been talks between the countries for SAS to start regular service to China, Actual start of service were deferred.

There was, however, a "bilateral understanding" on commercial air routes. Scandinavian Airlines System was granted rights between Scandinavia and Peking and/or Shanghai via Moscow and Irkutsk and beyond to Tokyo or other points to be decided later. China's CAAC got rights for routings to Scandinavia and beyond via intermediate undetermined points.

7.7.9 Egypt

Although Egypt was the first African country to sign an air bilateral

agreement with China in as early as May 3, 1965, it was surpassed by Ethiopia in becoming the first African country to provide regular air service to China.

In 1967, the UAR reportedly announced its intention of beginning a service to Peking when it had overcome its shortage of aircraft. However, until today, no further developments have been noted.

7.7.10 Great Britain

As early as January 6, 1950, Great Britain and the People's Republic of China had established diplomatic relations. However, air agreement between the two countries was concluded only as late as June 13, 1973, and with a lot of details still to be decided.

Essentially, the Anglo-Chinese air agreement allowed BOAC to fly London-Peking service via Hong Kong, but the right to pick up Hong Kong passengers to Peking was refused by the Chinese government.

Under the plan, passengers may board flights in London and other European cities and fly to Peking via Hong Kong. Travellers already in Hong Kong, however, will be required to make a two-hour train ride to Canton and there board a connecting CAAC flight to Peking.

As it now stands, when BOAC inaugurate the route, Hong Kong will be used as a refuelling stop, but long-range plans for BOAC will be to market the London-Peking service via Europe, Middle East, Indian subcontinent and Hong Kong, with a Hong Kong stopover privilege.

No definite date has been set, however, for the start of the service.

7.7.11 Greece

The People's Republic of China signed an air pact with Greece on May 23, 1973, almost at the same time of the air pact with the Scandinavians. No detail of the air pact, however, can be located.

7.7.12 Indonesia

Indonesia had been the first non-communist countries in South-east Asia to establish diplomatic relations with Peking. An air agreement between the countries was signed on November 6, 1964. Regular air service started soon after the agreement.

However, the service was suspended when President Sukarno was overthrown by the military.

7.7.13 Iran

Significantly, it was early in 1971 that China requested fly-over rights from Iran. More than a year later, in April 1972, a high-level Iranian delegation led by Hoshang Arbabi, Deputy Minister of Roads and Director of Civil Aviation, visited Peking. Although no announcement was made regarding the signature of a civil aviation agreement, Teheran Radio reported the director of Iran Air as saying that flights to Peking and Japan would start shortly and that Iran Air would be the first IATA member to offer service to Peking.

On November 18, 1972, the air agreement between the two countries was signed. However, Iran National Airlines did not start regular service to Peking until late in 1974, thus losing the title of being "No. 1 IATA Member to serve Peking".

At the end of 1974, though, the service between Teheran was operated by TACOM, the Roumanian airline. As for Iran National Airlines, the Teheran-Peking service had been suspended for some unclear reasons.

7.7.14 Iraq

In early 1967, it was reported from Baghdad that China and Iraq were soon to negotiate their first air agreement, but not until the end of 1969 did the New China News Agency report that an air transport agreement had been signed on November 7 of that year. As yet, no services have been inaugurated by either party, however.

7.7.15 Italy

A preliminary agreement on the exchange of traffic rights was reached on October 25, 1972 between the Italian and the People's Republic of China's governments. Scheduled service between Rome and Shanghai or Peking was planned and there had been rumours of its inaugural for a long time. Although the final agreement was signed on January 8, 1973, the chance of Alitalia operating regular services to China gets dimmer and dimmer as the Italian airline faced a big loss in business last year.

7.7.16 North Korea

The air pact between the two countries was signed on February 18, 1959. Since then, CAAC has been operating a weekly flight to Pyongyang, and the North Korean airline C.A.A. DPRK has a weekly non-stop flight to Peking.

7.7.17 Laos

An air agreement was signed between Communist China and Laos on January 13, 1962, which provided that "air transport companies appointed by the two sides will conduct flights, scheduled or unscheduled, on agreed routes".²¹ Even though this agreement is still in force, it has remain dormant.

7.7.18 Mongolia

An aviation agreement between Communist China and Outer Mongolia was signed on January 17, 1958 in Ulan Bator. There have been, for some time regular services between Ulan Bator and Peking. However, only non-scheduled services remained on this route.

7.7.19 Norway

The air agreement between Communist China and Norway was signed at almost the same time as the other two Scandinavian countries, Denmark

and Sweden. In fact, Norway was the first one among the three to sign such an agreement with the PRC on May 12, 1973. (See Section 7.7.8)

7.7.20 Romania

Agreements were signed on April 6, 1972 covering reciprocal landing and fly-over rights, as well as on cooperation between the airlines of the two countries. Details of the cooperation accord were not announced.

Since early 1974, TACOM - Romanian Air Transport has been operating a weekly Boeing 707 Bucharest-Athens-Teheran-Karachi-Peking service.

7.7.21 Sweden

The air agreement between the PRC and Sweden was signed on June 1, 1973. (See Section 7.7.8)

7.7.22 Switzerland

The air pact between Switzerland and the PRC was signed on November 12, 1973, after about two years negotiations.

Under the agreement, Swissair will begin regularly scheduled service to Shanghai and Peking from Zurich and Geneva on April 1, 1975.*

Initial service called for a once-a-week flight via Athens and Bombay, with McDonnell Douglas DC-8-62 aircraft. Some time earlier, Swissair had

* Aviation Week and Space Technology, October 14, 1974, page 30.

been thinking of using DC-10-30 on this route, but were refused by the Chinese government.

In accordance with the agreement, Swissair will be permitted to operate a second weekly flight at a later stage of service.

As for CAAC, London and Paris are its primary points on a Europe-China route and Geneva will only be a prestige point on the way if the service do start. Until now, it appears that CAAC has no plan to serve Switzerland in the near future.

7.7.23 Syria

A provisional air agreement has been signed between the governments of the PRC and Syria in February 1974. Details of the agreement were not located.

7.7.24 Turkey

The geographical location of Turkey made the agreement between China and Turkey an important one. With the signing of the agreement on September 16, 1972, CAAC finally had obtained all necessary rights and completed necessary legal and business arrangements to open an air route to Europe. Istanbul may become one of the important stops of a CAAC Europe-China route in the future.

7.7.25 North Vietnam

On April 5, 1956, the "Air Transport Agreement Between the Governments of the People's Republic of China and the Government of the Democratic Republic of Vietnam" was signed in Peking by Kuang Jen-nung, head of CAAC and Dang Tinh, head of the Vietnamese Delegation. Scheduled services were inaugurated on April 22, 1956 on the 852-kilometer Canton-Nanning-Hanoi route. The agreement was renewed on May 30, 1971.

Now, CAAC operates a weekly jet service between Nanning and Hanoi. From Nanning, connecting flights are available to Canton and Peking.

7.7.26 Yugoslavia

Yugoslavia and China signed a reciprocal charter agreement in 1971. Under that agreement, Yugoslav Airlines (JAT) carried three loads of tourists to Shanghai and Peking on Boeing 707s in that year's December. Thus becoming the first airline ever to operate passenger (tourist) charters into China since 1949.⁵³

On April 14, 1972, a formal air bilateral agreement was reached in Belgrade. Yugoslav Airlines (JAT) will land at four unspecified points en route from Belgrade to Peking, and have rights to extend flights from Peking to Tokyo. Chinese aircraft will fly on the route Peking-Karachi (or Kandahar, Afghanistan)-Teheran-Istanbul-Bucharest-Belgrade-Tirana and on to other unspecified countries.

Although reportedly, JAT would operate its inaugural flight soon, nothing more than talks have happened.

CHAPTER 8

SUMMARY FINDINGS

The year 1947 is an important year during the development of civil aviation in Mainland China. In that year, the Nationalists had established a considerable size of aviation networks that were not matched by the Communists until the late 50's. Without the Civil War, aviation in China would probably have grown a lot faster than it is now.

The Communists, after taking over the 'mess' that was left over in 1949, set out and rebuilt the whole network. Growth had been quickest in the 1950's and then from 1968 to present.

Now, equipped with a modern fleet, its airline, CAAC, will soon show her flag to the whole world. A central-Asian route between Japan and France via China will be inaugurated soon. Very probable in the near future, CAAC will also be serving North America - Canada.

Air relations between the PRC and U.S. is still very uncertain. Unless something very drastic happened, the relationship between the two countries would probably remain in stalemate.

As for tourism, China has as yet showed no interest. The Chinese leaders would probably wait until the country gets better developed before they will welcome tourists.

The buying of the Boeing 707s had for some time stimulated big interests among the aircraft manufacturers. So far, the Chinese would just come to a manufacturer and tell them what they want. There have

been no fleet planning , flight scheduling, etc. done for the Chinese airline. This is probably not really necessary yet as the frequencies of traffic are still very low, with the exception of the busy triangle - Peking, shanghai and Canton. However, this may be necessary in the near future for efficient management if CAAC continues to grow at the present rate.

As for the Boeing 707s, already CAAC is using two of them on the domestic network - in the triangle of course. Another 707 is being used to fly to Japan twice a week. With the coming inaugural of the Peking-Paris route, a fourth one will probably be added to the active fleet. But how about the other six?

A probable guess is that one of them may be used for a China-Africa route flight, one on China-Canada flight, one on Peking-Teheran route, with an extension to Athens, Butharest and even London. The low utilization of the 707s have been thought by some people as a big wastage. However, the early buying of these airplanes before they are really needed is perhaps a smart judgement by the Chinese government. Not only that inflation would have increased the costs a lot by now, the time available for a thorough training of its staff before their actual world-wide service should be very important to the Chinese, who are relatively inexperienced in world aviation.

As for domestic services, growth will be steady, but freight traffic is going to stay as the major element. The local pleasure travel is expected to stay relatively unchanged, but business market will boom in the future.

APPENDIX A

SUMMARY OF IMPORTANT BILATERAL AGREEMENTS

- 1950.3.11 Air Agreement with Aeroflot³
- 1950.3.27 A 10-year Sino-Soviet agreement which created a joint civil aviation company to operate three air routes between Peking and the Soviet Cities of Chita, Irkutsk, and Alma-Ata.²⁹
- 1954.10.12 A series of Sino-Soviet Agreements announced in Peking in which the Russians agreed to relinquish its shares in four Sino-Soviet joint stock companies including SKOGA by January 1, 1955.²⁹
- 1954.10.12 Agreement of the overflying of north-east China by Soviet and North Korean aircraft carrying supplies between the two countries. This is included in a Sino-Korean economic and cultural agreement.³
- 1954.12.24 A joint Sino-North Vietnam communique issued in Peking. The agreements provide for Chinese supplies for road transport and civil air service and meteorological station.²⁹
- 1954.12.30 A joint Sino-Soviet air service agreement was signed in Peking calling for the establishment of air service between Peking and Moscow.

- 1954.12.31 Four Sino-Soviet joint stock companies were transferred to Communist China with elaborate ceremonies. One of the four companies was SKOGA.
- 1955.11.8 An air transport agreement was signed in Rangoon between Burma and the PRC which provided that "air service will be provided by the Civil Aviation Administration of China on the Kunming-Mandalay-Rangoon route and by the Union of Burma Airways on the Rangoon-Mandalay-Kunming-Canton route."
- 1955.12.30 Two Sino-Vietnamese (North) contracts were signed dealing with the purchase of five airliners and aircraft equipment from the PRC, and aid by PRC technicians in North Vietnam. ²⁹
- 1956.1.4 The NCNA announced that comprehensive program for scientific and technical cooperation between the Soviet Union and the PRC had been worked out, and a civil aviation agreement had been signed in Moscow. ²⁹
- 1956.4.5 A Sino-North Vietnam agreement on civil air transport was signed in Peking.
- 1956.10.21 Under an agreement between the PRC and the government of India a Chinese civil plane flew from Tanghsiung airport near Lhasa over a mountain pass near Yatung and landed at Bugdegra airport in North India. On October 24, an Indian plane took off from Jarhat airport in Assam and landed at Tanghsiung. ²⁹
- 1958.1.17 An aviation agreement between Communist China and Outer

Mongolia was signed in Ulan Bator.

- 1958.7.31 A protocol on Sino-East German scientific and technical cooperation was signed in Peking.²⁹
- 1958 Air transport agreement with the German Democratic Republic.³
- 1958.11.13 A Sino-Bulgarian protocol on scientific and technical cooperation was signed in Peking.²⁹
- 1958 Air transport agreement with Bulgaria.³
- 1959.2.18 A Sino-North Korean agreement on air transport was signed in Peking, with a protocol on reciprocal air services and a protocol on technical cooperation in civil aviation.²⁹
- 1959.3.26 A Sino-Ceylonese air transport agreement to establish civil air communications was signed in Peking along with a protocol to the air transport agreement and an exchange of notes on the nationality of pilots. (Ceylon is now re-named Sri Lanka)
- May 1961 Aviation agreement with Iran.³ (from other references there were only negotiations, and no agreement was signed.)
- 1962.1.13 The PRC and Laos signed in Khang Khay, provincial capital of Laos in Xieng Khouang Province, an air transport agreement.
- 1962.12.1 A Sino-Soviet protocol on the mutual provisions of service and air transport by the Civil Aviation Administrations of the two countries was signed in Peking.²⁰
- 1963.8.29 An air transport agreement between Pakistan and the PRC was

signed in Karachi. Formal flights began on April 29, 1965, only three days after the inaugural flight.

- 1963.11.24 The PRC and Afghanistan signed in Peking an air transport agreement without further negotiation on the opening of air services between the two countries.²¹
- 1963.11.25 The PRC and Cambodia signed an agreement on air transport in Phnom Penh. The China-Cambodian flight was inaugurated on May 12 and regular services began on May 19, 1964. CAAC ran the Chinese section, while Royal Cambodian Airlines ran the Cambodian section. The initial schedule was one flight weekly.
- 1964.11.6 An agreement on air communications between the governments of the PRC and the Republic of Indonesia was signed in Peking. A protocol on agency business and offering of services between the General Administration of Civil Aviation of China and Garuda Indonesian Airways was also signed.
- 1964.9.9 Negotiations for temporary China-Indonesian air service. Trial flight took place on Oct. 15, 1964. Regular services began on January 6, 1965. There was one flight weekly. Service suspended in 1966.
- 1965.5.2 An agreement between the PRC and UAR (Egypt) relating to air services was signed in Peking.
- 1966.4.4 A second Sino-Soviet agreement of air transport was signed at Moscow amending the 1954 agreement.

- 1966.6.1 An air communications agreement between France and the PRC was signed in Paris providing for a weekly Paris-Shanghai service by airlines of the two countries. The service was inaugurated by Air France on September 20, 1966.
- 1966.7.25 A Sino-French air protocol relating to the rendering of technical service by both sides was signed in Peking.
- 1969.11.7 A Sino-Iraqi agreement on air transport was signed in Peking.
- 1971.5.30 Signature in Peking of a Sino-North Vietnamese agreement.³
- 1972.3.28 A Sino-Albanian agreement on civil air transport was signed in Tirana. (Ref. 40 said date was March 29.)
- 1972.4.6 Sino-Romanian agreements were signed in Bucharest covering reciprocal landing and fly-over rights, as well as on co-operation of the two countries. Details of the cooperation accord remain undisclosed.
- 1972.4.14 An air agreement was signed between the PRC and the Yugoslavia governments in Belgrade. By the agreement, Yugoslav Airlines (JAT) will land at four unspecified points en route from Belgrade to Peking, and have rights to extend flights from Peking to Tokyo. Chinese aircraft will fly on the route Peking-Karachi-Teheran-Istanbul-Bucharest-Belgrade-Tirana and on to other unspecified countries.
- 1972.5.10 Air agreement was reached on opening an air service during the visit of an Ethiopian civil aviation delegation to Peking.

- 1972.7.26 A civil air transport agreement was signed in Kabul between the governments of the PRC and Afghanistan, after initial exploratory talks in November 1963.
- 1972.7.30 Formal signature of the Sino-Ethiopian accord in Peking. The first inaugural flight took place on February 21, 1973 on the Addis Ababa-Bombay-Shanghai route.
- 1972.9.16 A Sino-Turkish agreement was signed in Ankara on civil air transport.
- 1972.11.18 A Sino-Iranian air agreement was signed in Peking.
- 1973.1.8 Signature in Peking of an air pact between the PRC and Italy.
- 1973.5.12 A bilateral air agreement between the PRC and Norway was signed.
- 1973.5.18 Bilateral agreement signed between the PRC and Denmark.
- 1973.5.23 Bilateral agreement signed between the PRC and Greece.
- 1973.6.1 Bilateral agreement signed between the PRC and Sweden.
- 1973.6.11 Agreement on the opening of service with Canada.
- 1973.6.13 A provisional agreement signed with Great Britain concerning air service between the two countries.
- 1973.7.? A new air agreement was signed between the PRC and U.S.S.R in which China agreed to establish services to Moscow. Soviet-made IL-62 would be used.

- 1973.10.15 Commercial agreement with the Canadian airline CP Air.³
- 1973.11.12 An air agreement was signed in Bern between the PRC and Switzerland. Swissair will have the landing rights at Shanghai and Peking, and CAAC will have the reciprocal rights at Zurich and Geneva.
- 1974.2.? A provisional agreement was reached between the PRC and Syria.
- 1974.4.20 An aviation agreement was signed in Peking between the PRC and Japan. Japan will have the landing rights at Peking and Shanghai. In return, CAAC will have the landing rights at Tokyo and Osaka.
- 1974 The Chinese and Finnish aviation authorities started negotiations on air agreement in Peking. The aim was to enable Finnair to start a service between Helsinki and Peking, by way of the Soviet Union, and beyond to Tokyo.³
- 1975.1 CAAC, Air France and JAL signed an unusual three-nation air transport pact that stresses Fifth Freedom rights. The airlines will inaugurate scheduled service between Europe and the Orient through the People's Republic of China on February 7, 1975.

APPENDIX B

BASIC AIR LAWS^{*}

No basic air laws of the Chinese People's Republic could be found despite the most diligent search - which extended to personal investigation in Taiwan and Hong Kong. However, some legal principles may be illustrated by applicable provisions of the customs law of the People's Republic of China.

The Provisional Customs Law of the People's Republic of China was passed at the 77th meeting of the Government Administration Council in Peking on March 23, 1951, and promulgated on April 18. This law has been in effect since May 1, 1951. The following articles are in Chapter 7 of the Provisional Customs Law concerning "air transport of cargo across the national boundaries":

Article 81. Civil airplanes flying into and out of the country should, except when otherwise permitted by the Customs Administration, land or take off at an international airport where there is a customs house. The aviation company should inform, in advance, the customs house of the time of arrival and departure to enable it to place the airplane under watch. Measures for control and supervision of civil airplanes approved by the Customs Administration to take off or land at an airport with no customs house shall be formulated by the Customs Administration.

The civil airplanes denoted in this law include all non-military airplanes, airships, balloons or any other conveyance that can fly in the air. When a military plane is carrying civilians or common goods into and out of the country, the air commander of the locality should give advance notice to the customs house for inspection.

Article 82. Civil airplanes after entering the country and landing

* This appendix is extracted from pp. 435-436 of Reference 12.

at the airport should report to the customs house through the pilot or the aviation company, submitting a passenger list and a cargo manifest duly filled out as required by the customs house for its examination. When necessary, the customs house may ask the captain to produce testimony for flying across the national borders, the log book, the tonnage report, and the nationality registration certificate.

Article 83. Civil airplanes after entering the country should unload the import goods under the supervision of the customs house and store them in a warehouse registered with or approved by the customs house.

Article 84. Export goods carried by civil airplanes leaving the country shall be limited to those released by the customs house and the landing shall be done under the supervision of the customs house.

Article 85. When civil airplanes leaving the country apply for customs clearance, a passenger list including luggage, together with a cargo manifest, duly filled out as prescribed by the customs house, should be submitted to the customs house by the captain or the aviation company. After they are examined by the customs house and all procedures completed, the plane shall be allowed to take off.

Article 86. The supplies and materials carried on board for the use of the plane entering the country should be listed and reported by the captain for placing under customs control.

Any additional supply of fuel and materials shall also be subject to examination by the customs house.

Article 87. Civil airplanes entering the country, when carrying cargo to another international airport in the country or to a foreign land via through traffic, shall submit, through the captain or the aviation company for the examination of the customs house, a manifest of import goods shipped to the points designated, or a manifest of goods sent by through traffic. The customs house shall place such goods under lock and key, to be released at the points designated or at the last international airport visited by the plane upon leaving the country.

Article 88. The customs house shall search civil airplanes entering or leaving the country. If, under special circumstances, it is necessary to open up a part of the plane where smuggled goods might be hidden, the captain of the plane or the aviation company should be notified first.

Article 89. If civil airplanes entering or leaving the country make forced landing in the country due to special circumstances, the

captain or the aviation company should immediately communicate the detailed conditions to the customs house at the destination or the starting point. If there is a customs house at the place where forced landing is made, customs permission should first be obtained before the plane can be allowed to take off. If there is no customs house at the airport, a certificate from the local airport or the local people's government, testifying that no loading or unloading of cargo or embarking or disembarking of passengers has taken place, should be submitted to the customs house for record purposes.

If the aforementioned plane is unable to continue its journey or has to reduce its burden, the cargo left behind should be reported by the captain to the local airport or the people's government for custody. Permission must be obtained from the customs house before further shipment can be made.

Article 90. When mechanical disturbances or other causes necessitate air drop of goods from aboard civil airplanes leaving or entering the country, the conditions should be reported immediately by the captain or the aviation company to the customs house at the airport nearby for transmission to the port of arrival or the port of departure.

APPENDIX C

AIR TRANSPORT AGREEMENT BETWEEN THE UNITED
STATES OF AMERICA AND THE REPUBLIC OF CHINA*
(1946)

Having in mind the resolution signed under date of December 7, 1944, [1] at the International Civil Aviation Conference in Chicago, Illinois, for the adoption of a standard form of agreement for provisional air routes and services, and the desirability of mutually stimulating and promoting the sound economic development of air transportation between the United States of America and the Republic of China, the two Governments parties to this Agreement agree that the establishment and development of air transport services between their respective territories shall be governed by the following provisions:

Article 1. The contracting parties grant the rights specified in the Annex hereto necessary for establishing the international civil air routes and services therein described, whether such services be inaugurated immediately or at a later date at the option of the contracting party to whom the rights are granted.

Article 2 (a) Each of the air services so described shall be placed in operation as soon as the contracting party to whom the right has been granted by Article 1 to designate an airline or airline or airlines for the route concerned has authorized an airline for such route, and the contracting party granting the right shall, subject to Article 7 hereof, be bound to give the appropriate operating permission to the airline or airlines concerned; provided that the airline so designated may be required to qualify before the competent aeronautical authorities of the contracting party granting the rights under the laws and regulations normally applied by these

* This appendix is extracted from pp. 3404-3409 of Reference 12.

authorities before being permitted to engage in the operations contemplated by this Agreement; and provided that in areas of hostilities or of military occupation, or in areas affected thereby, such inauguration shall be subject to the approval of the competent military authorities.

(b) It is understood that the contracting parties should undertake to exercise the commercial rights granted under this Agreement at the earliest practicable date except in the case of temporary inability to do so.

Article 3. Operating rights which may have been granted previously by either of the contracting parties to any State not a party to this Agreement or to an airline shall continue in force according to their term.

Article 4. In order to prevent discriminatory practices and to assure equality of treatment, it is agreed that:

(a) Each of the contracting parties may impose or permit to be imposed just and reasonable charges for the use of airports and other facilities. Each of the contracting parties agrees, however, that these charges shall not be higher than those which would be paid for the use of such airports and facilities by its national aircraft engaged in similar international services.

(b) Fuel, lubricating oils and spare parts introduced into the territory of one contracting party by the other contracting party or its nationals and intended solely for use by aircraft of such other contracting party shall be accorded national and most-favored-nation treatment with respect to the imposition of customs duties, inspection fees or other national duties or charges by the contracting party whose territory is entered.

(c) The fuel, lubricating oils, spare parts, regular equipment and aircraft stores retained on board civil aircraft of the airlines of one contracting party authorized to operate the routes and services described in the Annex shall, upon arriving in or leaving the territory of the other contracting party, be exempt from customs, inspection fees or similar duties or charges, even though such supplies be used or consumed by such aircraft on flights in that territory.

Article 5. Certificates of airworthiness, certificates of competency and licenses issued or rendered valid by one contracting party shall be recognized as valid by the other contracting party for the purpose of operating the routes and services described in the Annex. Each contracting party reserves the right, however, to refuse to recognize, for the purpose of flight above its own territory, certificates of competency and licenses granted to its own nationals by another State.

Article 6. (a) The laws and regulations of one contracting party relating to the admission to or departure from its territory

of aircraft engaged in international air navigation, or to the operation and navigation of such aircraft while within its territory, shall be applied to the aircraft of the other contracting party without distinction as to nationality, and shall be complied with by such aircraft upon entering or departing from or while within the territory of the contracting party.

(b) The laws and regulations of one contracting party as to the admission to or departure from its territory of passengers, crew, or cargo of aircraft, such as regulations relating to entry, clearance, immigration, passports, customs and quarantine shall be complied with by or on behalf of such passengers, crew, or cargo of the aircraft of the other contracting party upon entrance into or departure from or while within the territory of that contracting party.

Article 7. Substantial ownership and effective control of airlines of each contracting party authorized under this Agreement shall be vested in nationals of that contracting party. Each contracting party reserves the right to withhold or revoke the certificate or permit of any airline of the other contracting party in case of failure of such airline to comply with the laws of the State over which it operates, as described in Article 6 hereof, or otherwise to fulfill the conditions under which the rights are granted in accordance with this Agreement and its Annex.

Article 8. This Agreement and all contracts connected therewith shall be registered with the Provisional International Civil Aviation Organization, or its successor.

Article 9. Except as otherwise provided in this Agreement or in its Annex, any dispute between the contracting parties relating to the interpretation or application of this Agreement or its Annex which cannot be settled through consultation shall be referred, for an advisory report, to the Interim Council of the Provisional International Civil Aviation Organization (in accordance with the provisions of Article III, Section 6(8) of the Interim Agreement on International Civil Aviation signed at Chicago on December 7, 1944[1]) or its successor.

Article 10. For the purposes of this Agreement and its Annex, unless the context otherwise requires:

(a) The term "aeronautical authorities" shall mean, in the case of the United States of America, the Civil Aeronautics Board and any person or body authorized to perform the functions presently exercised by the Board or similar functions, and, in the case of the Republic of China, the Minister of Communications for the time being, and any person or body authorized to perform any functions presently exercised by the said Minister or similar functions.

(b) The term "designated airline" shall mean the air transport

enterprises which the aeronautical authorities of one of the contracting parties have notified in writing to the aeronautical authorities of the other contracting party as the airlines designated by it in accordance with paragraph (a) of Article 2 of this Agreement for the routes specified in such notification.

(c) The term "territory" shall have the meaning assigned to it by Article 2 of the Convention on International Civil Aviation signed at Chicago on December 7, 1944.[1]

(d) The definitions contained in paragraphs (a), (b) and (d) of Article 96 of the Convention on International Civil Aviation signed at Chicago on December 7, 1944 shall apply.

Article 11. In the event either of the contracting parties considers it desirable to modify the routes or conditions set forth in the attached Annex, it may request consultation between the competent aeronautical authorities of both contracting parties, such consultation to begin within a period of 60 days from the date of the request. When these authorities mutually agree on new or revised conditions affecting the Annex, their recommendations on the matter will come into effect after they have been confirmed by an exchange of diplomatic notes.

Article 12. This Agreement shall continue in force for a period of four years or until it may be superseded in order to conform with a general multilateral air transport convention which may enter into force in relation to both contracting parties. Upon the expiration of this Agreement its renewal for additional periods of time to be agreed upon may be effected by an exchange of diplomatic notes. It is understood and agreed, however, that this Agreement may be terminated by either contracting party upon giving one year's notice to the other contracting party. Such notice may be given at any time after a period of two months to allow for consultation between the contracting parties.

Article 13. This Agreement, including the provisions of the Annex hereto, will come into force on the day it is signed.

Done in duplicate, in the English and Chinese languages, both equally authentic, at Nanking, this twentieth day of December, one thousand nine hundred forty-six, corresponding to the twentieth day of the twelfth month of the thirty-fifth year of the Republic of China.

ANNEX A. Airlines of the United States authorized under the present Agreement are accorded rights of transit and nontraffic stop in Chinese territory, as well as the flight to pick up and discharge international traffic in passengers, cargo and mail at Shanghai, Tientsin, and Canton, as well as at such additional points as may be agreed upon from time to time, on the following routes, via intermediate points in both directions:

1. The United States over a pacific route to Tientsin and Shanghai and thence to the Philippine Islands and beyond, as well as beyond Shanghai via Route No. 3 described below.

2. The United States over a Pacific route to Shanghai and Canton and beyond.

3. The United States over an Atlantic route via intermediate points in Europe, Africa, the Near East, India, Burma and Indo-China to Canton and Shanghai and beyond.

On each of the above routes the airlines authorized to operate such route may operate nonstop flights between any of the points on such route omitting stops at one or more of the other points on such route.

B. Airlines of China authorized under the present Agreement are accorded rights of transit and nontraffic stop in the territory of the United States, as well as the right to pick up and discharge international traffic in passengers, cargo and mail at San Francisco, New York, and Honolulu, as well as at such additional points as may be agreed upon from time to time, on the following routes, via intermediate points in both directions:

1. China over a Pacific route via Tokyo, Kurile Islands, the Aleutian Islands and Alaska to San Francisco and beyond.

2. China over a Pacific route via the intermediate points of Manila, Guam, Wake, and Honolulu to San Francisco and beyond.

3. China over an Atlantic route via intermediate points in Indo-China, Burma, India, the Near East, Africa and Europe to New York and beyond.

On each of the above routes the airline authorized to operate such route may operate nonstop flights between any of the points on such route omitting stops at one or more of the other points on such route.

C. In the operation of the air services authorized under this Agreement, both contracting parties agree to the following principles and objectives:

1. Fair and equal opportunity for the airlines of each contracting party to operate air services on international routes, and the creation of machinery to obviate unfair competition by unjustifiable increases of frequencies or capacity;

2. The elimination of formulae for the predetermination of frequencies or capacity or of any arbitrary division of air traffic between countries and their national airlines;

3. The adjustment of fifth freedom traffic with regard to:

(a) Traffic requirements between the country of origin and the countries of destination;

(b) The requirements of through airline operation;

(c) The traffic requirements of the area through which the airline passes after taking account of local and regional services.

D.1. Rates to be charged by the air carriers of either contracting party between points in the territory of the United States and points in the territory of China referred to in this Annex

shall be subject to the approval of the contracting parties within their respective constitutional powers and obligations. In the event of disagreement the matter in dispute shall be handled as provided below.

2. The Civil Aeronautics Board of the United States having announced its intention to approve the rate conference machinery of the International Air Transport Association (hereinafter called "IATA"), as submitted, for a period of one year beginning in February, 1946, any rate agreements concluded through this machinery during this period and involving United States air carriers will be subject to approval by the Board.

3. Any new rate proposed by the air carrier or carriers of either contracting party shall be filed with the aeronautical authorities of both contracting parties at least thirty days before the proposed date of introduction; provided that this period of thirty days may be reduced in particular cases if so agreed by the aeronautical authorities of both contracting parties.

4. The contracting parties hereby agree that where:

(a) during the period of the Board's approval of the IATA rate conference machinery, either any specific rate agreement is not approved within a reasonable time by either contracting party or a conference of IATA is unable to agree on a rate, or

(b) at any time no IATA machinery is applicable, or

(c) either contracting party at any time withdraws or fails to renew its approval of that part of the IATA rate conference machinery relevant to this provision,

the procedure described in paragraphs 5, 6 and 7 hereof shall apply.

5. In the event that power is conferred by law upon the aeronautical authorities of the United States to fix fair and economic rates for the transport of persons and property by air on international services and to suspend proposed rates in a manner comparable to that in which the Civil Aeronautics Board at present is empowered to act with respect to such rates for the transport of persons and property by air within the United States, each of the contracting parties shall thereafter exercise its authority in such manner as to prevent any rate or rates proposed by one of its carriers for services from the territory of one contracting party to a point or points in the territory of the other contracting party from becoming effective, if in the judgment of the aeronautical authorities of the contracting party whose air carrier or carriers is or are proposing such rate, that rate is unfair or uneconomic. If one of the contracting parties on receipt of the notification referred to in paragraph 3 above is dissatisfied with the new rate proposed by the air carrier or carriers of the other contracting party, it shall so notify the other contracting party prior to the expiry of the first fifteen of the thirty days referred to, and the contracting parties shall endeavour to reach agreement on the appropriate rate. In the event that such agreement is reached each contracting party will exercise its statutory powers to give effect to such agreement. If agreement has not been reached at the end of the thirty day period referred to in paragraph 3 above, the proposed

rate may, unless the aeronautical authorities of the country of the air carrier concerned see fit to suspend its operation, go into effect provisionally pending the settlement of any dispute in accordance with the procedure outlined in paragraph 7 below.

6. Prior to the time when such power may be conferred by law upon the aeronautical authorities of the United States. if one of the contracting parties is dissatisfied with any new rate proposed by the air carrier or carriers of either contracting party for services from the territory of one contracting party to a point or points in the territory of the other contracting party, it shall so notify the other prior to the expiry of the first fifteen of the thirty day period referred to in paragraph 3 above, and the contracting parties shall endeavour to reach agreement on the appropriate rate. In the event that such agreement is reached each contracting party will use its best efforts to cause such agreed rate to be put into effect by its air carrier or carriers. It is recognized that if no such agreement can be reached prior to the expiry of such thirty days, the contracting party raising the objection to the rate may take such steps as it may consider necessary to prevent the inauguration or continuation of the service in question at the rate complained of.

7. When in any case under paragraphs 5 and 6 above the aeronautical authorities of the two contracting parties cannot agree within a reasonable time upon the appropriate rate after consultation initiated by the complaint of one contracting party concerning the proposed rate or an existing rate of the air carrier or carriers, of the other contracting party, upon the request of either, both contracting parties shall submit the question to the Provisional International Civil Aviation Organization or to its successor for an advisory report, and each party will use its best efforts under the powers available to it to put into effect the opinion expressed in such report.

8. The rates to be agreed in accordance with the above paragraphs shall be fixed at reasonable levels, due regard being paid to all relevant factors, such as cost of operation, reasonable profit and the rates charged by any other air carriers.

9. The Executive Branch of the Government of the United States agrees to use its best efforts to secure legislation empowering the aeronautical authorities of the United States to fix fair and economic rates for the transport of persons and property by air on international services and to suspend proposed rates in a manner comparable to that in which the Civil Aeronautics Board at present is empowered to act with respect to such rates for the transport of persons and property by air within the United States.

APPENDIX D

AIR TRANSPORT AGREEMENT BETWEEN THE GOVERNMENT OF THE
PEOPLE'S REPUBLIC OF CHINA AND THE GOVERNMENT OF THE UNION OF BURMA*

(1955)

The Government of the People's Republic of China and the Government of the Union of Burma, desiring to establish scheduled civil aviation services between their countries in order to promote their economic and cultural relations, have agreed upon the following:

Article 1. (A) Each Contracting Party, pursuant to the provisions of this Agreement, agrees to grant the right to the designated air transport enterprise of the other Contracting Party to carry on flights, by its aircraft for civil transport purposes, on the following air route:

Course for aircraft of the People's Republic of China:

Kunming - Mandalay - Rangoon

Course for aircraft of the Union of Burma:

Rangoon - Mandalay - Kunming - Canton.

For civil aircraft of the People's Republic of China, the above-mentioned right to conduct transport flights shall mean the transporting of passengers, baggage, goods and mail (1) from Kunming to Mandalay and Rangoon, (2) from Rangoon and Mandalay to Kunming; for civil aircraft of the Union of Burma, the above-mentioned right to conduct civil transport flights shall mean the transporting of passengers, baggage, goods and mail (1) from Rangoon and Mandalay to Kunming and Canton, (2) from Canton and Kunming to Mandalay and Rangoon.

(B) In accordance with the principle of mutual respect for sovereignty over territorial air, each Contracting Party shall designate independently that part of the air route, which Section (A) of this Article prescribes, that passes through its own territory. Entrance and exit points on the common border of the Contracting Parties shall be designated jointly through consultation.

Article 2. (A) The Government of the People's Republic of China shall designate the "China Civil Aviation Administration" as the air transport enterprise to manage the air route prescribed in Article I of this Agreement. The Government of the Union of Burma shall designate the "Union of Burma Airways Board" as the air transport enterprise to manage the air route prescribed in Article I of this Agreement. The frequency of scheduled flights of the air transport enterprise of each Contracting Party shall not exceed two a week in each direction..

* This appendix is extracted from PP. 438-443 of Reference 12.

Each Contracting Party shall not exceed two a week in each direction. Each Contracting Party shall decide for itself as to the date of inauguration of such scheduled flights, provided the other Contracting Party has been notified sixty days prior to such inauguration. Either Contracting Party may request consultation, which shall be conducted on a fair and equal basis, with the other Contracting Party with a view to initiate any change in the schedule of flights.

(B) The right of principal ownership and the right to make final decisions in the management of the designated air transport enterprise shall belong to the government of each Contracting Party.

Article 3. The designated air transport enterprises of the Contracting Parties, in accordance with the Protocol, which is based on joint needs and mutual benefit, of this Agreement, shall receive fair and equal opportunity and consideration regarding the distribution of business and utilization of service facilities including communication services, navigational aid, meteorological information, accommodations of airports, schedule of flights, rates charged for the carriage of passengers and good, business agency, transshipment and fiscal matters.

Article 4. (A) Rates to be charged for the carriage of passengers, baggage and goods on the designated air route prescribed in Article 1 of this Agreement, shall be fixed at a reasonable level, with due consideration for all factors including presupposition of economy in operation and expectation of a reasonable amount of profit. The designated air transport enterprises of the Contracting Parties shall establish a uniform minimum standard for rates to be charged on either the whole common air route or on different but equal sections of it.

(B) Minimum rates to be charged on the air route prescribed in Article 1 of this Agreement or any section of it shall be resolved by the air transport enterprises of the Contracting Parties and ratified by the Contracting Parties. In the event an agreement cannot be reached by the air transport enterprises or in the event the minimum rates agreed upon fail to acquire the required ratification, the Contracting Parties shall devise ways and means through which mutual agreement may be secured. Unless a new decision on minimum rates is reached, the rates in force at that time shall continue to be effective.

Article 5. Matters concerning the carriage of mail on the designated air route prescribed in Article 1 of this Agreement shall be dealt with by the postal authorities of the Contracting Parties through negotiation.

Article 6. (A) Every civil aircraft of the designated air transport enterprise of each Contracting Party, while in flight on the designated air route prescribed in Article 1 of this Agreement, shall carry domestically-designed marking for international flight, registration certificate, certificate of airworthiness, flight log book, permit for radio equipment, passenger list and manifest of goods and mail; flight personnel shall possess valid licenses and certificates of fitness.

(B) Each Contracting party shall recognize as valid the above-mentioned documents issued or validated by the other Contracting Party. But the standard of minimum requirement set by one Contracting Party for the issuance or approval of such certificates and licenses shall equal or exceed that which is or may, at some future time, be set by the civil aviation authorities of the other Contracting Party.

Article 7. Pilots and other members of flight service who operate aircraft of the designated air transport enterprises of the Contracting Parties on the designated air route prescribed in Article 1 of this Agreement shall be citizens of the People's Republic of China and the Union of Burma, respectively.

Article 8. Each Contracting Party shall permit the use by the other Contracting Party, of its airports necessary for the operation of the designated air route prescribed in Article 1 of this Agreement, and shall be responsible for providing the kind of radio service essential to aircraft in flight under normal conditions, meteorological service and other flight facilities, and shall adopt the approved standards as set forth in the Protocol of this Agreement.

Article 9. Neither Contracting Party shall under any circumstances, charge civil aircraft of the other Contracting Party for using its airports and other facilities rates higher than those paid by its own aircraft. Each Contracting Party shall publish these rates and notify the civil aviation authorities of the other Contracting Party.

Article 10. (A) Aircraft of the designated air transport enterprise of each Contracting Party shall comply with laws and regulations of the other Contracting Party governing the entry into and departure from its territory in international flight, business transactions, flight within its borders and prohibited and restricted areas.

(B) Pertinent laws and regulations in force of each Contracting Party governing entering the country, leaving the country, release permit, customs, immigration and quarantine, etc. shall apply to flight personnel, passengers, baggage, goods and mail carried by civil aircraft of the other Contracting Party. The Contracting Parties shall avoid any unnecessary delay while applying

the provisions of these laws and regulations.

(C) In order to ensure observance of the provisions of this Agreement, the proper authorities of each Contracting Party shall have the right to inspect, within its territory, grounded civil aviation aircraft of the other Contracting Party. In doing so, unreasonable delay shall be avoided.

Article 11. (A) Supplies of fuel, lubricating oils, spare parts, regular equipment and other aviation stores retained on board aircraft of the designated air transport enterprise of one Contracting Party shall be exempt in the territory of the other Contracting Party from customs duties, inspection fees or similar duties or charges, even though such supplies be used by such aircraft within that territory. When permitted by the customs authorities of the other Contracting Party, such tax-exempt supplies may be unloaded and kept under the custody of the customs authorities until reloading is desired.

(B) Supplies of fuel, lubricating oils, spare parts, regular equipment and other aviation stores introduced into the territory of the other Contracting Party, to be used exclusively for aircraft of the air transport enterprise designated by, or on behalf of, one Contracting Party, shall, in accordance with the principle of equality and mutual benefit, be exempt from customs duties, inspection fees or similar duties or charges, provided pertinent regulations of the other Contracting Party, whose customs authorities may supervise such supplies, have been observed.

Article 12. (A) Each Contracting Party shall render every possible assistance and convenience, within its territory, to the other Contracting Party in its technical maintenance and repair activities necessary for the operation of the designated air route prescribed in Article 1 of this Agreement.

(B) The designated air transport enterprise of each Contracting Party shall make arrangements, and shall, when requested, make every effort to provide, within its territory, the designated air transport enterprise of the other Contracting Party with fuel and lubricating oils necessary for the operation of the designated air route prescribed in Article 1 of this Agreement. If one contracting Party, for the purpose of operating that part of the designated air route that lies within the territory of the other Contracting Party, imports its own fuel and lubricating oils, the other Contracting Party shall permit such practice and render every possible assistance and convenience.

(C) Each Contracting Party shall adopt security measures in its airports for safeguarding aircraft, fuel, lubricating oils and equipment of the other Contracting Party.

Article 13. The Contracting Parties, considering the needs in the operation of the designated air route prescribed in Article 1 of this Agreement, shall, respectively, accord to the designated air transport enterprise of the other Contracting Party the following: To the designated air transport enterprise of the People's Republic of China, the right to establish its own offices at Rangoon and Mandalay. To the designated air transport enterprise of the Union of Burma, the right to establish its own offices at Canton and Kunming.

With the exception of persons who are hired locally, each Contracting Party shall employ its own citizens to staff such offices. Each Contracting Party shall render such offices of the designated air transport enterprise of the other Contracting Party every assistance and convenience.

Article 14. Each Contracting Party agrees to accord to the designated air transport enterprise of the other Contracting Party Necessary convenience in matters concerning foreign exchange, in order that profit resulting from operating the designated air route prescribed in Article 1 of this Agreement may be converted into the desired currencies.

Article 15. Each Contracting Party shall direct its civil aviation authorities to conduct regular and routine consultations and to maintain close cooperation with the civil aviation authorities of the other Contracting Party, in order to uphold the principles of this Agreement and to ensure the application of its provisions.

Article 16. The civil aviation authorities of each Contracting Party shall undertake, or direct its designated air transport enterprise to undertake, to make prompt exchange of current data on traffic between the Contracting Part. These data include regulations concerning transportation, time-tables, price lists, and papers pledging that the provisions of this Agreement will be fully adhered to. Each Contracting Party shall also direct its designated air transport enterprise to furnish the civil aviation authorities of the other Contracting Party with monthly statistics on traffic, including places of embarkation and destination, between the Contracting Parties.

Article 17. Either Contracting Party may request consultation with the other Contracting Party with a view to initiate any amendments to this Agreement. Consultation shall take place within sixty days after the initial request. Resulting new or amended provisions shall immediately enter into force.

Article 18. In the event one Contracting Party or its designated air transport enterprise fails to act according to the provisions of this agreement, the other Contracting Party reserves the right to detain or terminate the operating licence granted. This action, however, shall not be taken until negotiation has taken place.

Article 19. (A) Each Contracting Party shall deem it its responsibility to furnish suitable equipment and take practical steps to aid aircraft in distress of the other Contracting Party, and to permit, subject to control by local authorities, the other Contracting Party to provide measures of aid as may be necessitated by circumstances. The Contracting Parties, when searching for missing aircraft or aiding distressed aircraft, shall cooperate in concerted measures.

(B) In the event of an accident within the boundaries of the other Contracting Party to an aircraft of the designated air transport enterprise of one Contracting Party, involving death or serious injury, or indicating serious damage of the aircraft, the Contracting Party in whose territory the accident has occurred shall, according to its pertinent regulations, undertake to investigate the circumstances of the accident. The Contracting Party which owns the aircraft shall have the right to appoint observers to be present at the investigation and the Contracting Party conducting the investigation shall communicate the report and findings to that Contracting Party.

Article 20. The protocol and notes exchanged between the Contracting Parties in connection with this Agreement shall be regarded as component parts of this Agreement and shall be included in its application.

Article 21. In the spirit of friendship and mutual understanding, the Contracting Parties shall settle any dispute arising from the interpretation or application of this Agreement and the protocol through consultation and negotiation.

Article 22. This Agreement shall enter into force on the day it is signed. After this Agreement has been in force for one year, either Contracting Party may at any time give written notice to the other Contracting Party expressing its desire to terminate this Agreement. If such notice is given, this Agreement shall terminate one year after the date of receipt of the notice by the other Contracting Party, unless the notice is withdrawn by mutual agreement three months before the expiration date.

Done in duplicate at Rangoon on the Eighth day of November, 1955, in the Chinese and Burmese languages. Both texts shall have equal authority.

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