



INTERNATIONAL CIVIL AVIATION ORGANIZATION

THIRD MEETING OF THE AERODROMES OPERATIONS AND PLANNING – WORKING GROUP (AOP/WG/3)

Malaysia, 2 – 4 June 2015

Agenda Item 4: Provision of AOP in the Asia/Pacific Region**AIRPORT AIRSIDE LAND MASTER PLAN**

(Presented by China PRC)

SUMMARY

This paper presents the area operation and master plan of Beijing Capital International Airport (airport code PEK).

A master plan is required for long-term development of an airport. It displays the concept graphically and reports the data and logic upon which the plan is based. Master plans are prepared to support modernization of existing airports and creation of new airports, regard of size, complexity, and role.

This paper relates to –

Strategic Objectives:

- A: Safety – Enhance global civil aviation safety*
- B: Air Navigation Capacity and Efficiency – Increase Capacity and improve efficiency of the global civil aviation system*
- E: Environmental Protection – Minimize the adverse environmental effects of civil aviation activities*

1. INTRODUCTION

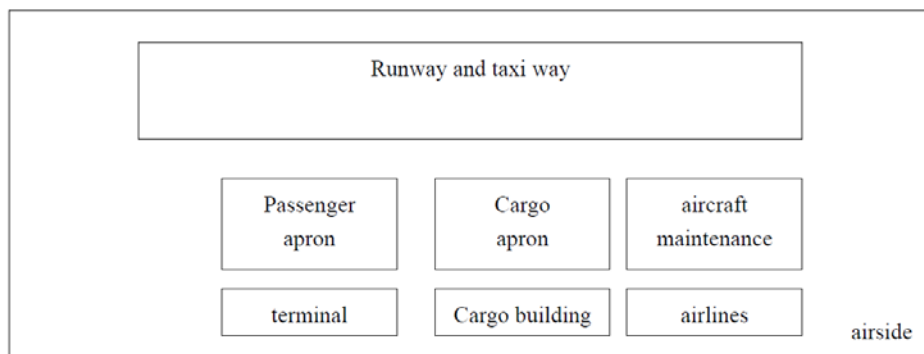
1.1 This paper presents the airside of airport different function area operation and master plan. Master plan of PEK airport example is used in this paper to display about passengers and cargo or aircraft maintenance function operation.

1.2 A master plan is required for long-term development of an airport. It displays the concept graphically and reports the data and logic upon which the plan is based. Master plans are prepared to support modernization of existing airports and creation of new airports, regard of size, complexity, and role.

1.3 Usually, passenger terminal, cargo building and aircraft maintenance are important functions in airport airside operations. It is also a key factor for development of master plan and land use. These factors display different forms with airport development.

2. DISCUSSION

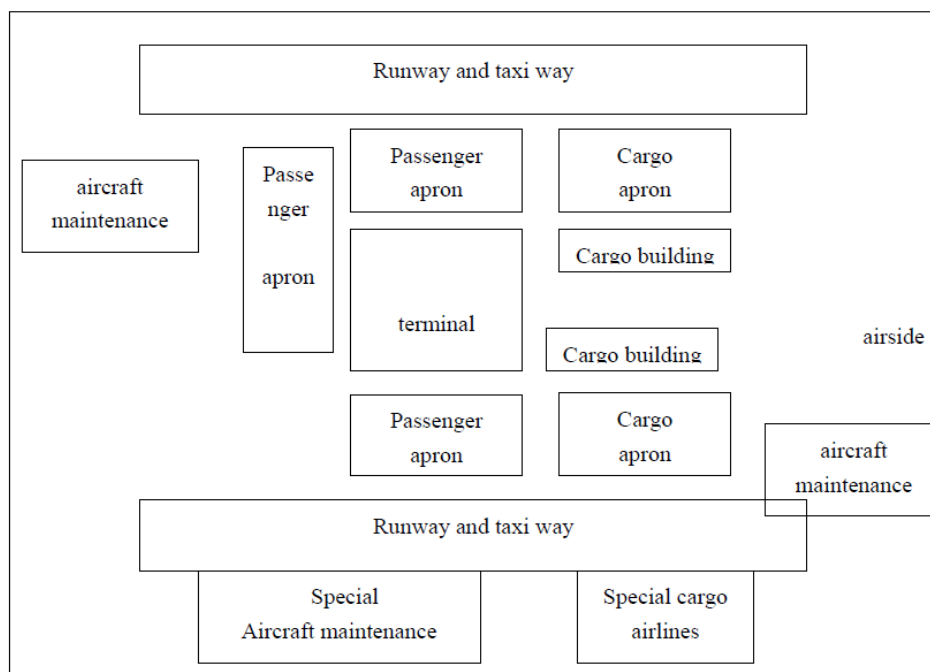
Case 1 one runway airside plan



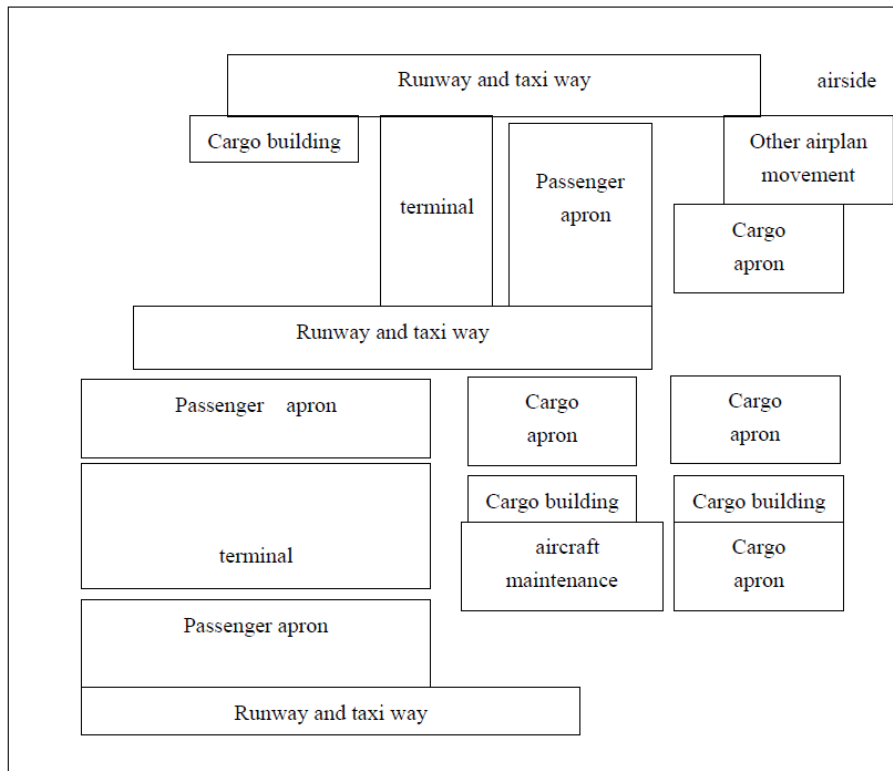
2.1 There are much airside resource for passenger terminal, cargo building and aircraft maintenance in this case. Both airport and airlines operations are convenient and fast.

Case 2 two runways airside plan

2.2 There are more airside resource for passenger terminal, cargo building and aircraft maintenance in second case. In order to improve civil cargo operation, cargo buildings are located nearby passenger apron. More and more aircraft movements focus on the airport, the core land are used for passenger movements. Cargo movements and aircraft maintenance which operation by special companies have to plan in other airside land surrounding runway.



Case 3 over two runways airside plan such as pek airport



2.3 Beijing Capital International Airport (BCIA), known as “China’s No.1 Gateway”, is the most important, largest and busiest international aviation hub with the state-the-art facilities. BCIA sees its annual passenger throughput rise from 1.03 million in 1978 to 83.71 million in 2013,

ranking second among airports in the world. To meet the ever-growing demand of passengers, BCIA has carried out large-scale expansion and reconstruction projects for altogether seven times since 1965. On January 1, 1980, Terminal 1 with an area of 61,580 square meters was officially put into operation. On November 1, 1999, Terminal 2 with an area of 336,000 square meters was put into use. Before 2008 the Terminal 3 was put into use.

2.4 PEK airport has three runways, two aircraft movement areas named old west area and new east area are divided by middle runway. Old west area has two passenger terminals T1 and T2. About one quarter passengers are carried in this area. New east area used by CA and Star Alliance has three passenger terminals T3C, T3D and T3E. About three quarters passengers are carried in this area. Both of the two areas have operation international airlines. Aircrafts in these areas enjoy convenient and fast airside.

2.5 Air cargo transportation by passenger aircraft is mostly in PEK. In this case cargo movements are divided into two areas. Civil air cargo are similar to passengers transportation, it can be divided into some different areas which nearby passenger aircraft apron. In this case civil air cargo can be improved operational efficiency. But international air cargo are better to focus, because of they have joint to customs airport and such others. The capital airport customs clearance base covers an area of about 212ha, the planning of the six major functional areas, including: air cargo building, express center, import and export cargo customs surveillance zone, bonded zone, port logistics park and all office zone. Core cargo handing area is nearby cargo aircraft apron, it can convenient and fast take off or approach. In 2014 cargo throughput by PEK is over 1.8 million tons.

2.6 Not only passenger terminal and air cargo area are divided, but also aircraft maintenance function are also divide into two parts. One part in old west area, the other part in new east area.

2.7 PEK has kept its history in mind when addressing the issues of land acquisition and compatible land use. Its development course and present situation is most reasonable and logical for summary and learning.

2.8 In conclusion, airside plan should focus on aircrafts operation convenient and fast. Their emphasis are not the same in different stages, keep pace with the time.

3. ACTION BY THE MEETING

3.1 The meeting is invited to note the information contained in this paper and urge airport operators to establish Master Plan for their airports.

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