



PEARL RIVER DELTA OVERFLIGHT

27 November 2008



Introduction

This will be an unusual rental car tour. Not only was it not conducted by rental car, it was not even conducted by car. Airplanes were the mode, specifically four flights by Shanghai Airlines, Viet Nam Airlines, BritishAir and United Airlines. The subject is China's Pearl River Delta, an emerging mega region composed of at least seven adjacent metropolitan areas --- Guangzhou-Foshan, Dongguan, Shenzhen, Hong Kong, Zhongshan, Zhuhai and Macao. Each of these metropolitan areas has a large urban area at its core and in some cases, the urban areas have grown together. Nonetheless, there are expanses of agricultural or other rural space generally surrounded by urbanization.

Scale of the Pearl River Delta

The metropolitan areas of the Pearl River Delta combine for a population of approximately 50 million. Guangzhou and Foshan, two metropolitan areas that have grown together, have a population approaching 17 million. Shenzhen, just a fishing village 30 years ago, is approaching 12 million. *China Daily* recently reported that Dongguan, located between Shenzhen and Guangzhou has reached 10 million. The fourth largest urban area in the Pearl River Delta is Hong Kong at less than 7 million. Zhongshan is approaching 3 million, Zhuhai 2 million and Macao has approximately 500,000 residents.¹

The Pearl River Delta in Context

¹ These are metropolitan area (labor market area) populations. The urban areas (areas of continuous urban development, urban footprints or agglomerations) are somewhat lower.

All of this urbanization is located in the space of less than 5,000 square miles --- 8,000 square kilometers, slightly more than the land area of the New York urban area, which covers more space than any other in the world and has less than 20 million people. It seems likely that the population of the Pearl River Delta will continue to grow, as people continue to move from China's rural areas.

The Pearl River Delta mega-region now has more people than the Tokyo urban area, the world's largest urban area.

The Pearl River Delta is among the few world mega-regions, which are large adjacent metropolitan areas. Probably the first was the Northeast Corridor of the United States,² which has a population of approximately 45 million in 30,000 square miles (less than 50,000 square kilometers).

The other obvious mega-region --- the Yangtze Delta (Shanghai, etc.)³ has approximately 55 million people in somewhat more than 10,000 square miles (16,000 square kilometers). Thus, the Pearl River mega-region may claim to be the world's most dense expanse of urbanization. From traveling through and over these two mega-regions, it is clear that the Pearl River Delta is the much more intensely developed of the two.

The Pearl River Delta also includes the world's most dense urban area, Hong Kong.

The Flights

The Pearl River Delta Overflight includes photographs from four flights taken in 2008.

Flight #1 landed at Baiyun International Airport in Guangzhou. The route of flight (Slides 2-3) was from the north, into Guandong province from Jainxi province (Slide 10). The flight operated to the west of the airport (Slides 12 & 41), down to Foshan (Slide 20), and turning north near the core of Guangzhou (Slides 20-22) positioning itself for landing.

Flight #2 took off from Baiyun a few hours later (Slides 2-4). This flight circled over mountains to the north of the airport and then turned south, to the west of the airport. Several villa (detached housing) developments were identified (Slides 44-47 & 49). Then came the hills to the north of Guangzhou's core and the old international airport (Slide 52). Clear views of central Guangzhou, on the main channel of the Pearl River, were obtained (Slides 52-57). The flight continued down the less developed south side of Guangzhou (Slides 58-66). The flight crossed into Zhongshan, (Slide 68) with views of Dongguan across the Pearl River and Shenzhen in the distance beyond (Slides 69-74). The flight continued into Zhuhai (Slides 82-85) and Macao (Slides 84-87). The three bridges from Macao peninsula to Taipa Island are visible in Slide 86. The last view before venturing out to open ocean is Macao International Airport, built on fill to the east of the urban area (Slide 87). There is a plan for a bridge to be built between the Pearl River estuary's western and eastern shores (Macao and Hong Kong).

² Washington, Baltimore, Philadelphia, Allentown-Bethlehem, New York, Hartford, Providence, Boston.

³ Shanghai, Suzhou, Wuxi, Changzhou, Zhenjiang, Nanjing, Huzhou, Jiaxing and Hangzhou.

Flight #3 took off from Hong Kong International Airport, providing views of Tuen Mun (Slides 89, 90 & 92). There are also views of Shenzhen in the distance (90, 91 & 93). Slide 93 shows Shenzhen over the hills from Hong Kong's "Junk Yard Valley," the large central valley to the east of Yuen Long that has all of the less attractive land uses necessary to an urban area, but could not look more unlike the rest of Hong Kong. Yuen Long is also shown in Slide 91. The flight continued to Tseun Wan (Slides 94-96). There are a number of views of Kowloon (Slides 97 to 107), with the abandoned former Hong Kong International Airport in Slides 100 to 102. The new towns of Sha Tin (Slides 97, 99-100, 104 & 118) and Ma On Shan (Slides 99-100) are also visible. Just to the north of the old airport is the park that replaced the Kowloon Walled City, destroyed by the British government in the early 1990s (Slide 100). This may have been the world's most dense settlement, with as many as 5 million people per square mile (3 million per square kilometer) in its 18 acres (8 hectares).

Flight 4 took off from Hong Kong International Airport and circled back to provide views of Hong Kong Island (Slides 110-113), Kowloon (Slides 115-116) and continued across Shenzhen and Dongguan into Guangzhou (Slides 78-80).

<http://www.rentalcartours.net>

<http://www.demographia.com>

<http://www.publicpurpose.com>

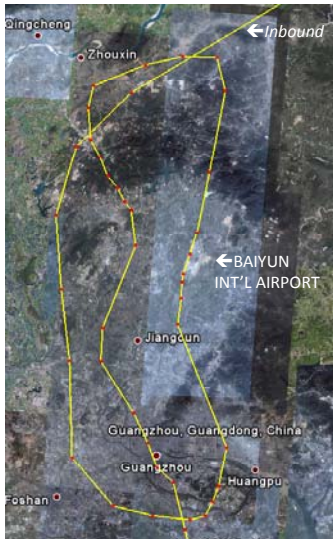
PEARL RIVER DELTA OVERFLIGHT

Routes of Flights



**OVERVIEW
FLIGHTS 1 & 2
Guangzhou-
Foshan-
Zhongshan-
Dongguan-
Shenzhen-
Zhuhai
Macao**

2



**DETAIL
FLIGHTS 1 & 2
Guangzhou-
Foshan**

3



**DETAIL
FLIGHTS
1 & 2
Guangzhou
Zhongshan-
Dongguan-
Shenzhen-
Zhuhai
Macao**

4



**OVERVIEW
ROUTE
FLIGHT 3
HKIA-
Kowloon**

5



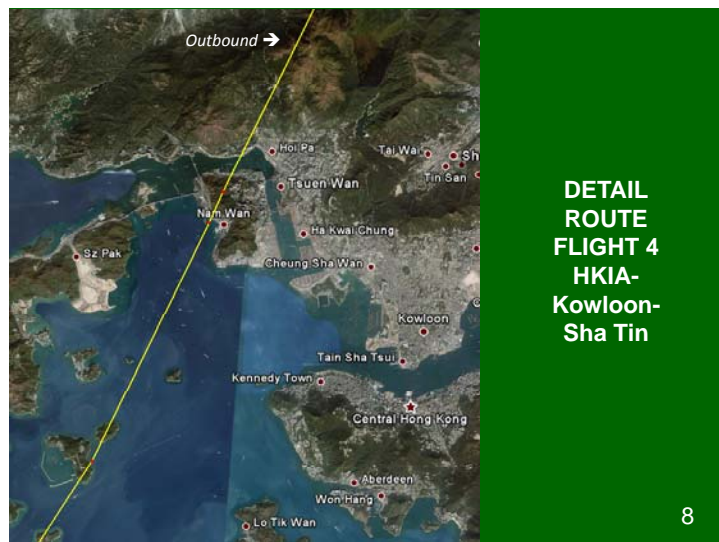
DETAIL: FLIGHT 3: HKIA-Kowloon

6



**OVERVIEW
ROUTE
FLIGHT 4
HKIA-
Kowloon-
Shenzhen-
Dongguan**

7



**DETAIL
ROUTE
FLIGHT 4
HKIA-
Kowloon-
Sha Tin**

8



Mountains of Jianxi Province (Flying Toward Guangzhou)

10



Industrial Development: North Guangzhou

11



Guangzhou Baiyun International Airport (from Northwest)

12



Guangzhou (North)

13



Guangzhou (North)

14



Guangzhou (North)

15



Guangzhou (North)

16



Guangzhou (North)

17



Guangzhou (North)

18



Guangzhou (North)

19



Foshan & Guangzhou (Toward Center)

20



Guangzhou (Center)

21



Guangzhou (Center)

22



Guangzhou (East)

23



Guangzhou (East)

24



Guangzhou (East)

25



Guangzhou (East)

26



Guangzhou (East)

27



Guangzhou (North)

28



Guangzhou (North): Toll Plaza on Expressway

29



Guangzhou (North)

30



Guangzhou (North)

31



Guangzhou (North)

32



Guangzhou (North)

33



Guangzhou (North)

34



Guangzhou (North)

35



Guangzhou (North)

36



Guangzhou (North): 12 Lane Expressway

37



Guangzhou (North)

38



Guangzhou (North)

39



Landing at Guangzhou Baiyun International Airport

40



Baiyun International Airport

41



Guangzhou (North)

42



Guangzhou (North)

43



Guangzhou (North)

44



Guangzhou (North): Villas (Detached Housing)

45



Guangzhou (North): Villas (Detached Housing)

46



Guangzhou (North): Villas (Detached Housing)

47



Guangzhou (North)

48



Guangzhou (North): Villas (Detached Housing)

49



Guangzhou (North)

50



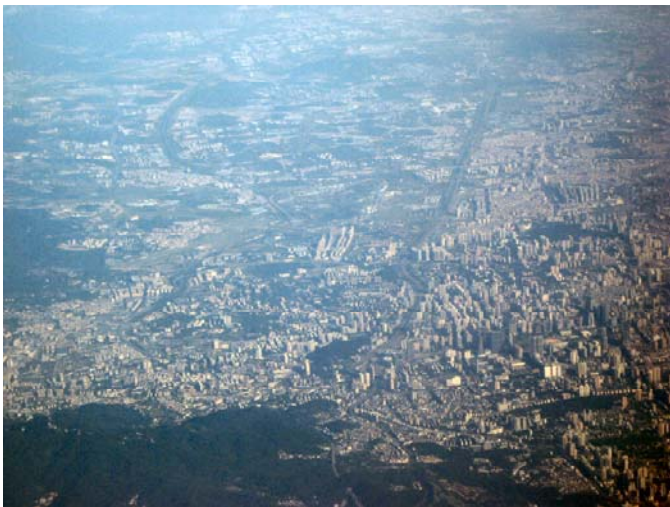
Guangzhou (North)

51



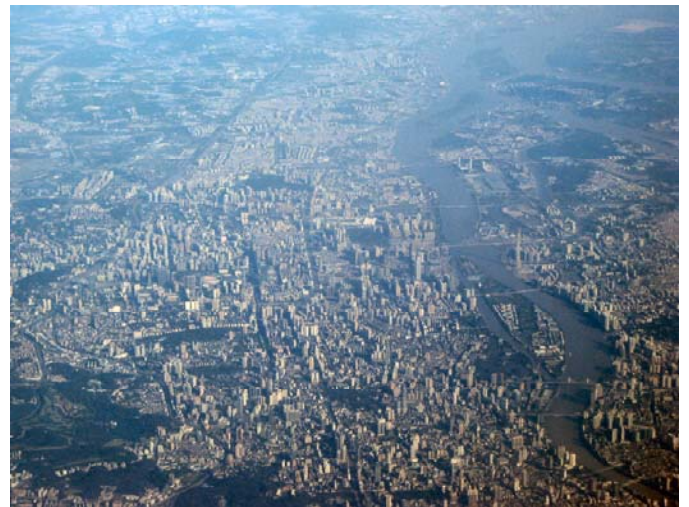
Guangzhou (North): Old International Airport (foreground)

52



Guangzhou (Center)

53



Guangzhou (Center)

54



Guangzhou (Center)

55



Guangzhou (Center)

56



Guangzhou (Center & East toward Dongguan)

57



Guangzhou & Pearl River

58



Guangzhou (South)

59



Guangzhou (South)

60



Guangzhou (South)

61



Guangzhou (South)

62



Guangzhou (South)

63



Guangzhou (South)

64



Guangzhou (South)

65



Guangzhou (South)

66

PEARL RIVER DELTA OVERFLIGHT

Zhongshan, Dongguan & Shenzhen



Zhongshan

68



Guangzhou & Dongguan (Distance)

69



Guangzhou & Dongguan (Distance)

70



Guangzhou & Dongguan, Shenzhen, Hong Kong (distance)

71



Guangzhou & Dongguan (Over River)

72



Shenzhen (International Airport in Foreground)

73



Shenzhen

74



Shenzhen from Hong Kong

75



Shenzhen from Hong Kong

76



Shenzhen from Hong Kong (Over "Junk Yard Valley")

77



Shenzhen

78



Dongguan

79



Dongguan (Right) & Guangzhou (Left)

80

PEARL RIVER DELTA OVERFLIGHT

Zhuhai & Macao

URBAN TOURS BY RENTAL CAR



Zhuhai

82



Zhuhai

83



Zhuhai & Macao (to right)

84



Zhuhai & Macao

85



Macao

86



Macao International Airport

87



Tuen Mun

89



Tuen Mun & Shenzhen (across Deep Bay)

90



Yuen Long & Shenzhen (across Deep Bay)

91



Tuen Mun

92



"Junk Yard Valley" & Shenzhen in Distance

93



Tsing Yi & Tsuen Wan

94



Tsuen Wan

95



Port of Hong Kong

96



Sha Tin, Ma On Shan (distance) & northern Kowloon 97



Kowloon (western) 98



Sha Tin, Ma On Shan (distance) & northern Kowloon 99



Sha Tin, Ma On Shan (distance) & northern Kowloon 100



Kowloon (Kowloon Bay area) & former airport 101



Kowloon (Kowloon Bay area), Sha Tin & former airport 102



Kowloon (Kowloon Bay area) & Tsuen Kwant (right) 103



Kowloon Bay, Sha Tin & Tai Po (distance) 104



Kowloon 105



Kowloon Bay, Tai Po & Longgang, Shenzhen (far distance) 106



Kowloon (south) 107



Lantau Island (Hong Kong International Airport) 108



Aberdeen (Hong Kong Island)

109



Hong Kong Island

110



Western Hong Kong Island, Central & Kowloon

111



Hong Kong Island, Hong Kong Harbour & Kowloon

112



Hong Kong Island & Hong Kong Harbour

113



Kowloon & Hong Kong Harbour

114



Kowloon (Tsuen Wan)

115



Kowloon (Former Airport in Upper Right)

116



Kowloon, Hong Kong Harbour & Hong Kong Island

117



Sha Tin

118