Hong Kong International Airport

CEE 491
Louis Santos
Aaron Ching
Eliepa Mata`afa
Outline

• Magnitude and Cost
• Social and Economic Benefits
• Social Problems and Policy Changes
• Technical Issues/Innovations
Magnitude and Cost

Location
- Hong Kong, China
- 1,255 hectares ~ 3101 acres

Order year 1995

Completed and Opened in July 1998.

Cost
- 24 billion

2 Terminals:
- T1 = 570,000 m², 288 passenger check in counters
- T2 = 140,000 m², 56 passenger check in counters
Magnitude and Cost

- Project type
  - Airport
  - Hotel
  - Restaurants
  - Bathrooms
  - Parking lots

- Runway length 3,800 meters
- Connectivity
  - 85 airlines operate flights to more than 150 destinations worldwide.
- 5th busiest airport in the world
Social Benefits

- **Terminal 1**
  - Can serve 35-45 million passengers

- **24 hour basis**

- **Daily non-stop flights**
  - Available to major cities in the Asia Pacific, Europe, the Middle East, and South Africa.
Economic Benefits

- Aeronautical engineering and aircraft maintenance

- Airline catering
  - Produces 80,000 meals a day
  - Three catering companies have a capacity of 120,000 meals per day

- Air cargo services
  - Capacity is 3 million tons
Economic Benefits

- Employment
  - 45,000 people

- Tourism
Social & Policy Issues

- **British to Chinese Government**
  - 7 Year Deadline

- **Opening Day Problems**
  - Flight Delays
  - Cargo Service Problems
Social & Policy Issues

- **Chinese White Dolphins**
  - Habitat Disturbance
  - Animal Conservation Groups

- **Cargo Revenue Declining**
  - Competing Airport Facilities
  - World’s Economic Problems
Technical Issues

- **Foundation Problems**
  - Ocean Tides
  - Piles

- **Wind & Weather Problems**
  - High Wind & Extreme Weather
  - China Air 233 Crash
  - Terminal Doppler Weather Radar
Innovation

- Motorola TETRA Digital Radio System
- Free Wi-fi
- On-line check in service
- Infrared System to Improve Weather Radar
- State of the art cargo system (Highly Automated Giant Robot.)
- RFID Luggage Delivery System
Advanced Air Cargo Facilities

- 3.5 hectares ~8.7 acres
- Awarded Technology Asset Protection Association Certification (TAPA)
- 2007 Asia-Pacific Airport Efficiency Excellence Award by Air Transport Research Society
## HKIA Cargo Performance Standards

### 2007 Performance of Cargo Terminal Operators

<table>
<thead>
<tr>
<th>Indicator</th>
<th>HKIA Performance Standard</th>
<th>CTOs Actual Performance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Export Cargo reception within 15 mins</td>
<td>96%</td>
<td>99 - 100%</td>
</tr>
<tr>
<td>Import cargo collection within 30 mins</td>
<td>96%</td>
<td>100%</td>
</tr>
</tbody>
</table>
Summary

- Magnitude and Cost
- Social and Economic Benefits
- Social and Policy Issues
- Technical Issues/Innovations
Thank You

• Source
  - http://news.bbc.co.uk/1/hi/world/asia-pacific/129891.stm
  - www.paving.org.uk/pdf/PaveIt_Nov03.pdf
  - http://travelvideo.tv/news/more.php?id=A2569_0_1_0_M