Incheon International Airport

CEE 491
Lampros Mitropoulos
Sean Schultz
Scott Honjiyo
Presentation Contents

- Project Overview
- Social and Economical Benefits
- Technical Issues and Innovations
- Social Problems and Policy Issues
Project overview

- Opened March 22, 2001 and is a public operation
- Currently in the expanding process
- Largest Airport in South Korea
  - One of largest and busiest in Asia
- South Korea’s largest building with total floor area of 5,347,555 ft²
- Total Cost of Airport Exceeded $5 billion
  - Took 8 years to construct
  - Another 6 months to test and operate
Project Overview

- World’s 6\textsuperscript{th} largest cargo airport
- Serves 30 million passengers yearly
- Has 74 boarding gates all together
  - Main passenger building has 44 gates
  - Concourse A has 30 gates
- 2 Runways
  - 3,750m long, 60m wide, and 1.05m thick
  - One used for departures while other is used for arrivals
- Cargo facility
  - Capable of handling 2.7 million tons of cargo with 1,389,000ft\textsuperscript{2} of cargo terminal space
Project Use and Positive Impacts

- Connected to mainland South Korea by the newly constructed Yeongjong Bridge.
  - Capable of servicing 51 cities with a population of over one million within 3.5 hours
- 27 million passengers travel annually, bringing tourism
  - 1.7 million tons of cargo brought in yearly for supplies
  - Will be expected to handle more than 100 million passengers annually in the near future due to expansion.
- Government plans to sell 49% of stakes in the IIA to secure international competitiveness.
  - 1st step in the President’s plan to reorganize the public sector
Technical issues and innovations

Phase 1
- 30 m pssng./year, & cargo capacity → 1.7 m metric tn/y

Phase 2
- A third parallel 4,000 meter-long runway
- A 13 hectare cargo terminal area
- 44 m pssng./year
- Cargo capacity → 4.5 m metric tn/y

Equipment upgrades
- ASDE-X with MRI (Multi Radar Tracking) function
- ADS-B (Automatic Dependent Surveillance Broadcast) system
Technical issues and innovations

Phase 3
- Modifications unknown
- 2 additional passenger concourses
- North passenger terminal

Phase 4
- Complete in 2020
- 2 passenger terminals
- 4 satellite concourses
- 128 gates
- 4 parallel runways
- 100 m pssng./year & cargo capacity→7 m metric tn/y
- 1 of the top ten busiest in the world by 2020
Technical issues and innovations

- 2 islands (Yongyu, Yongjong) → Yeongjong Island
- Reclaimed tidal land → 5m depth, normal consolidated soft soil
- It is connected to the mainland (Seo-gu) by Yeongjong Bridge
- It is served by frequent bus service from all parts of South Korea as well as by ferry service from Incheon and other nearby ports
- A highway between Incheon and Gimpo Airport
- A rail link to Gimpo Airport (and Seoul Subway Line 5)
Social problems and policy issues

- Korea want to capture more of global market
- September 11 lead to decrease in volume.
- User fee reduction to provide financial relief.
- Enabled carriers to recover from September 11.
Social problems and policy issues cont.

- Congestion a major issue.
- Several bus transfers required to reach Seoul.
- One hour commute during good traffic.
- Taxi very costly over long distance.
Social problems and policy issues cont.

Airport Relations

- Seoul’s Gimpo Airport and the Incheon International Airport.

- Traffic alleviation through the creation of the Airport Railroad Express.

- A highway between Incheon and Gimpo Airport.
Questions?

Thank you