

Land Use Planning in Airport Expansion

6 – 10 July 2015 • Lima, Peru



This course provides an understanding of fundamental considerations in land use planning and airport capacity expansion, including environmental factors and issues. The planning considerations for different airport configurations will also be addressed.

WHAT YOU WILL LEARN

Upon completion of this course, you will be able to:

- Demonstrate technical and non-technical knowledge on airport planning including the environmental factors
- Explain the major criteria in land use planning and airport capacity expansion
- Gain knowledge on the considerations in airport planning and expansion

WHAT IS COVERED

- **Introduction to Airport Planning**
 - Levels of aviation planning & planning philosophy
 - Master planning process
- **Aviation Traffic Forecasts**
 - Purpose of forecast
 - Air traffic forecasts required and their uses
 - Common forecasting methods
 - Converting forecasts into planning parameters
- **Capacity and Delay Analysis**
 - Definitions
 - Estimation of runway capacity
 - Estimation of gate capacity
 - Estimation of taxiway capacity
 - Estimation of hourly and annual delays to aircraft
- **Airport Layout Planning**
 - Aircraft characteristics that affect planning/design
 - Runway configuration (length and orientation)
 - Planning of taxiway configuration
 - Location of apron/terminal areas
- **Environmental Issues (Noise and Air)**
 - Aircraft noise (sources and measurement)
 - Noise mitigation measures
 - Air pollution (sources of air pollutants)

- Measurement and estimation of pollutant emission quantities, prevention of pollution
- Air pollutant mitigation methods

- **Land Use Planning and Planning of Passenger Terminals**

- Airport-land use compatibility plan
- Plan implementation – noise control
- Plan implementation – development control
- Planning domestic, small airports
- Concept development criteria: passenger, vehicles, airport operations, safety, expansion, economics
- Planning of passenger terminal configuration

WHO SHOULD ATTEND

This course is most beneficial to specialists, engineers and/or officials in the areas of airport planning and environment of Aviation Authorities, Airport Operators, Airlines, Environment Ministers or Organizations related

DURATION

5 days

INSTRUCTOR

Dr Professor Henry Fan was the Course Director of the Airport Engineering Course, co-organised by Nanyang Technological University and SAA for over 20 years. Dr Fan was responsible for the design of the Airport Engineering curriculum which remains a flagship course in SAA till today. Dr Fan has over 40 years of teaching, research and consulting experience in transportation. He holds a PhD in Engineering from the University of California, Berkeley. He is a Fellow of the Singapore Aviation Academy, a Director of Changi Airport Planners and Engineers, and an Advisory Committee member of the MSc in Urban Transportation Management programme of SIM University in Singapore.

Registration:

Secretary

Latin American Civil Aviation
Commission

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