

## Unit 23: Strategic Planning for Air Transport

<b>Unit code</b>	<b>D/616/2022</b>
<b>Unit level</b>	<b>5</b>
<b>Credit value</b>	<b>15</b>

### Introduction

In this unit, students will explore government air transport policy, along with recent and predicted trends in air transport, to determine how airports and airlines might develop in the future. The unit focuses on planning as a framework to set these issues into context and to develop future strategies.

Airports and airlines must work within this changing framework to plan and develop strategies to grow their business; a good understanding of government policy and the factors that influence government policy is essential if students are going to be successful in this unit. They will also learn about the tools used within the industry to plan and forecast for passenger growth, and how that informs the planning and utilisation of aircraft to meet passenger demand and operational costs.

## **Learning Outcomes**

By the end of this unit students will be able to:

1. Assess government air transport policy and determine what impact it will have on airlines and airports
2. Analyse the rationale behind and purpose of airport masterplans and comment on their validity
3. Interpret demand forecasting models based on variable inputs to construct an airport demand forecast
4. Evaluate the techniques involved in airline planning to optimise fleet assignments and maximise capabilities.

## Essential content

### LO1 **Assess government air transport policy and determine what impact it will have on airlines and airports**

*Assess government air transport policy:*

The roles and responsibilities of international governing bodies The International Civil Aviation Organisation (ICAO) and International Air Transport Association (IATA)

International policies that affect air transport

The implications of international and national government air transport legislation

Current government announcements on air transport affecting air transport developments

*What impact it will have on airports and airlines:*

The impact on national and regional airport development and infrastructure

The impact on airline route planning and competition for airspace

Globalisation of airline networks and strategic alliances

### LO2 **Analyse the rationale behind and purpose of airport masterplans and comment on their validity**

*Discuss the rationale behind and purpose of airport masterplans:*

The definition and purpose of the airport master plan

The co-ordination of airport development and planning with regional development plans

The importance of air traffic demand forecasting to provide airport infrastructure in time to meet demand

A roadmap to chart the ultimate development of the airport

The core areas covered in airport master plans

The process for developing airport masterplans

The importance of stakeholder engagement and consultation to create public openness, debate and input

*Validity of masterplans:*

Content aligned with government guidelines and policies

Content validity, realistic and feasible

Measures and metrics

**LO3 Interpret demand forecasting models based on variable inputs to construct an airport demand forecast**

*Forecasting models based on a set of variable inputs:*

Different methods and models of forecasting e.g. market share, time series, simulation and econometric

Airport masterplan forecasts and post-plan monitoring and evaluation techniques

Use of airport passenger demand forecasting:

Historic Civil Aviation Authority (CAA) data to forecast future developments

The use of sensitivity testing to produce a high, medium and low forecast

**LO4 Evaluate the techniques involved in airline planning to optimise fleet assignments and maximise capabilities**

*Airline planning:*

Fleet planning to meet demand levels and operating costs

Route and network planning to maximise revenue

Schedule planning to optimise fleet assignments, connections and slot clearances

Aircraft rotations and crew pairing

## Learning Outcomes and Assessment Criteria

Pass		Merit	Distinction
<b>LO1</b> Assess government air transport policy and determine what impact it will have on airlines and airports			<b>LO1 LO2</b> <b>D1</b> Make justified recommendations for an airport masterplan based on the long-term future implications of international and national policies
<b>P1</b> Assess the key developments in international and national government air transport policy, and their implications for airlines and airports	<b>M1</b> Analyse the long-term impacts of international and national policy on airlines and airports		
<b>LO2</b> Analyse the rationale behind and purpose of airport masterplans and comment on their validity			
<b>P2</b> Examine government policy relating to airport masterplans and the contents of a specific airport masterplan <b>P3</b> Analyse whether the masterplan meets government requirements and whether it is valid	<b>M2</b> Critically analyse a specific airport masterplan's validity and feasibility in relation government policy		
<b>LO3</b> Interpret demand forecasting models based on variable inputs to construct an airport demand forecast			<b>D2</b> Critically analyse variable inputs for international and national demand forecasting, providing justified recommendations for planned airport growth
<b>P4</b> Interpret different forecasts for air transport and airport demand forecasts <b>P5</b> Construct an airport demand forecast based on aviation data to make future predictions <b>P6</b> Apply sensitivity testing to produce a high and low forecast	<b>M3</b> Analyse variable inputs which make international and national airport demand forecasting challenging to predict correctly		

Pass	Merit	Distinction
<p><b>LO4</b> Evaluate the techniques involved in airline planning to optimise fleet assignments and maximise capabilities</p>		<p><b>D3</b> Make valid and justified solutions for optimising fleet assignments to maximise airline capabilities and profit</p>
<p><b>P7</b> Assess the different techniques involved in fleet, route and schedule planning to optimise fleet assignment</p>	<p><b>M4</b> Critically evaluate how techniques involved in fleet, route and schedule planning are interlinked to maximise airline capabilities and profit</p>	
<p><b>P8</b> Evaluate the use of the hub and spoke system for optimal fleet assignment</p>		

## Recommended resources

### Textbooks

ASHFORD, N., STANTON H.P. and MOORE, C. (2012) *Airport Operations*. 3rd ed. Columbus, Ohio: McGraw-Hill.

BELOBABA, P. and NEUFVILLE, R. (2013) *Airport Systems, Second Edition: Planning, Design and Management*. 2nd ed. Columbus, Ohio: McGraw-Hill.

GRAHAM, A. (2013) *Managing Airports. An International Perspective*. Oxford: Routledge.

MANIRIHO, E. (2016) *Strategic airport planning and marketing*. 1st ed. Madras: Notion Press.

### Websites

<a href="http://www.centreforaviation.com">www.centreforaviation.com</a>	Centre for Aviation Reports, Data (Research)
<a href="http://www.flightglobal.com">www.flightglobal.com</a>	Flight Global Data and Statistics (Research)

### Links

This unit links to the following related units:

*Unit 6: Managing Aviation Services*

*Unit 21: Airline Operations Management*

*Unit 22: Airport Operations Management*