

Acknowledgments

Preface

The Significance of Airport Terminals, and the Politics of Design

Part I Terminal Design Principles

1 An Overview of Airport Terminals

1.1 Pressures on Design: Demands on Designers to Innovate

1.2 The Balancing Act

1.3 Progress

2 Why Airports as we know them?

2.1 Scale: The Reasons for Airport Location and Growth

2.2 Airports as Activity Centers

3 A Cameo

4 A Review of Overall Size Factors and Capacity

4.1 Growth

4.2 Demand and Capacity

4.3 Aircraft Movements

4.4 Aircraft Size

5 Airport Master Planning

5.1 Runways and Terminals

5.2 Stolports

5.3 Heliports

5.4 Landside Access

6 Functional Types of Airport Terminal

6.1 Who Owns it: Airport, Airline or Developer?

6.2 Domestic and International Terminals

6.3 Single-Level and Multi-Level Terminals

6.4 Decentralized Terminals

6.5 Hub Terminals

Part II A Taxonomy of Aircraft Terminal Forms

7 Basic Terminal with Remote Aircraft

7.1 Malta, Luqa

8 Basic Terminals with Mobile Lounges

8.1 Washington Dulles, DC, USA

8.2 Montreal Mirabel, Canada

9 Linear Terminals

9.1 London Heathrow, Terminal 4

9.2 London Gatwick, North Terminal

9.3 Manchester, UK, Terminal 2

10 Piers: Single or Multiple

10.1 Zurich Kloten, Switzerland, Terminal B

10.2 Zurich Kloten, Switzerland, Terminal A New Pier

11 Satellites: Single or Multiple

11.1 Tampa, Florida, USA

11.2 Orlando, Florida, USA

12 Multiple Linear Units

12.1 Hanover Langenhagen, Germany

12.2 Munich 2, Germany

13 Multiple Island Piers

13.1 Atlanta William B. Hartsfield International, Georgia, USA

13.2 London Stansted, UK, New Terminal

14 Hybrids: Combinations of Forms

14.1 Chicago O'Hare, USA, United Airlines Terminal

Part III External Landside Factors

15 Public Transport Interchanges

15.1 The Range of Possibilities

15.2 Railway Stations

15.3 Bus Stations

16 Cars and Roads

Long Term and Short Term Car Parking

Contiguous Parking Structures

Part IV Terminal Design Details

17 Policies

17.1 Security Policy

17.2 Commercial Policy

17.3 Baggage Handling Policy

17.4 Government Controls: Immigration and Customs

17.5 Airline Policy

17.6 Overall Passenger Processing Standards

17.7 Levels of Service

18 Layouts and Configurations

18.1 Overall Relationships

18.2 Check-In, Tickets and Baggage, Central and Gate

18.3 Security

18.4 Outbound and Inbound Immigration

18.5 Baggage Reclaim

18.6 Customs

19 Data Sheets

19.1 Arriving by Car or Bus at the Terminal

19.2 Waiting in Landside Public Concourse

19.3 Checking-In, with or without Baggage

19.4 Pre-Departure Security Check

19.5 Outbound Immigration Check

19.6 Waiting in Airside Public Concourse

19.7 Inbound Immigration Check

19.8 Reclaiming Baggage

19.9 Inbound Customs Clearance

19.10 Waiting in Landside Public Space

19.11 Leaving the Terminal by Car or Bus

19.12 Transit and Transfer Facilities

19.13 Facilities for the Disabled

19.14 CIP and VIP Facilities

20 Baggage Handling

20.1 Baggage Handling Systems

20.2 Manual Sorting Layouts

20.3 Semi-Automatic and Automatic Sorting Systems

21 Flight Information Systems and Signage

22 Conditions, Finishes and Fire Criteria

22.1 Environmental Standards and Control

22.2 Finishes

22.3 Fire Criteria

23 Future Technology in the Terminal

23.1 People Movers

23.2 Baggage

23.3 Information Technology: Passenger Systems

24 Terminal Walkthrough

Part V External Airside Factors

25 Aircraft Taxiway and Parking Standards

25.1 Taxiways

25.2 Aprons

26 Aircraft Docking and Loading

26.1 Aircraft Docking

26.2 Aircraft Loading by Bridges

26.3 Superbuses and Mobile Lounges

Part VI Redevelopment of Existing Airport Terminals

27 Examples

27.1 Bahrain International, Redevelopment

27.2 London Heathrow, Terminal 1 Redevelopment (1978-81)

27.3 Manchester UK, Terminal A Development (1986-89)

27.4 New York, J. F. Kennedy, British Airways Terminal Redevelopment (1988-90)

27.5 London Heathrow, Terminal 3 Redevelopment (1986-90)

Part VII Postscript

28 Reflections on the Future of Airport Terminals

Baggage Handling

Technology in the Service of Air Travel at Airports

Technology in the Air

Technology in the Service of Designers

Conversion Factors

Appendix: Aircraft Dimensions

Bibliography

Index