



PD07

Movement of People

Standards

PD07

Movement of People

Published by: The Chartered Institute of Logistics and Transport in the UK

Earlstrees Road

Corby

Northants

NN17 4AX

Tel: 01536 740100

Fax: 01536 740101

All rights reserved. No part of this publication may be re-produced, stored in a retrieval system or transmitted, in any form or by any means, electronic, mechanical, photocopying, recording or otherwise without prior permission of the publishers. This publication may not be lent, re-sold, hired out or otherwise disposed of by way of trade in any form of binding or cover other than that in which it is published, without prior consent of the publishers. Within the UK, exceptions are allowed in respect of any fair dealing for the purpose of research or private study, or criticism or review, as permitted under the Copyright, Designs and Patents Act, 1988, or in the case of reprographic reproduction in accordance with the terms and conditions issued by the Copyright Licensing Agency.

© The Chartered Institute of Logistics and Transport in the UK™

PD07

Movement of People

Unit purpose and aim

This unit provides the underlying knowledge for the movement of people in a national and international context. It addresses the responses of the operator of passenger transport to the characteristics of movements. Key elements are the operation of the interchange points and location, together with the vital communications links that supply the control and confirmation of movement.

Elements

- PD07-1 The People to be Moved
- PD07-2 Origins, Destinations and Services
- PD07-3 Modes of Transport
- PD07-4 Movements
- PD07-5 Passenger Logistics and the Seamless Journey

This page is intentionally blank

Element PD07-1

The People to be Moved

Learning Outcomes

The learner will:

1.1. Understand the characteristics and nature of different passenger types.

1.2. Understand the impact of geography, demography and land-use on transport needs.

1.3. Know the key reasons for passenger journeys and the service requirements.

1.4. Understand the transport demands of different market segments.

1.5. Know the standards of efficiency, safety and security expected and the importance of customer perception of these factors.

Assessment Criteria

The learner can:

1.1.1. Assess the transport needs of individuals with diverse characteristics.

1.2.1. Analyse typical journeys undertaken by different modes of transport.

1.3.1. Analyse journeys undertaken by passengers and derive solutions to meet the required level of service.

1.4.1. Develop solutions to meet the transport needs of different market segments.

1.5.1. Define and implement satisfactory standards of efficiency, safety and security.

1.5.2. Distinguish between reality and perception in modal safety and security.

Indicative Content

Passenger types	Types: individuals; couples; family groups; affinity groups. Nature: people travelling alone; with heavy luggage; with an escort; special needs.
Impacts on transport needs	Population density: urban; suburban; rural communities. Demographic split: age; location; car ownership. Age/wealth influences: modal choice; time of travel; purpose of travel.
Passenger journeys	Purpose: business; leisure; personal. Service requirements: seat access level; load factor; on-board services; off-board services.
Transport demands	Frequency: diurnal; frequent; 20-30 times a year; occasional; seasonality. Service characteristics: timing; speed; headway; punctuality; certainty.
Efficiency, safety, security and customer perception	Safety: reality and perceptions of accident records in different modes; national differences; practicable safety levels; risk assessment; ALARA. Security: reality and perceptions of different modes; on-board; off-board; national differences. Efficiency: performance indicators.
Efficiency, safety, security and customer perception (continued)	Responsibilities of different parties for safety: passengers; operators; staff; third parties; Regulators; HSE. Responsibilities of different parties for security: individuals; operators; BTP; Regulators; government.

Element PD07-2

Origins, Destinations and Services

Learning Outcomes

The learner will:

2.1. Understand the points of origin and destination as traffic generators and the consequent volumes of traffic.

2.2. Understand the variety of journey types and their implications on service provision.

2.3. Understand the impact of the characteristics of the pick-up, interchange and drop off point.

2.4. Understand the basic concepts of route and service planning.

2.5. Understand the advantages and disadvantages of IT based solutions.

2.6. Understand the importance of information provision and communication between the parties involved in passenger transport.

2.7. Understand the importance of passenger choice.

Assessment Criteria

The learner can:

2.1.1. Analyse volumes of traffic with a view to improving service provision.

2.2.1. Analyse journey types with a view to improving service provision.

2.3.1. Analyse the characteristics of the pick-up, interchange and drop-off points to improve customer service.

2.4.1. Plan services to meet customer needs.

2.5.1. Plan services using IT-based systems to meet customer needs.

2.6.1. Analyse the communication needs of all parties involved in passenger transport.

2.7.1. Carry out a simple 4P marketing analysis.

Indicative Content

Origins and destinations	Land-use: home; work; education; healthcare; leisure. Levels: national; regional; urban; suburban; rural areas Volume: thick and thin routes; seasonality. Journey types: business; leisure; personal commuting.
Pickup, interchange and drop-off points	Types: wayside; station; interchange. Facilities: shelter; seating; information; hygiene; retail.
Route and service planning	Basic concepts: radial; cross-town; circular; orbital; inter-urban; rural. Features: speed; headway; stopping patterns; accessibility; environmental constraints. Scheduling: clock face services; special peak services; congestion; vehicle utilisation; empty running. IT-based solutions: advantages; disadvantages.
Information provision	Information: routine services; disruption of service. Communication mode: Internet; paper-based; on-vehicle; at interchanges. Parties involved: passengers; intending passengers; infrastructure operators; vehicle operators; crews.
Passenger choice	Choice between: different modes; different operators. Impact of the contestable market: competition and market share. Simple 4P (Product Price Place Promotion) marketing analysis.

Element PD07-3

Modes of Transport

Learning Outcomes

The learner will:

3.1. Know the suitability of the various modes of transport for the movement of people.

3.2. Understand the capacity and resource requirements of the transport infrastructure.

3.3. Understand the various intra-modal and intermodal techniques and practices.

3.4. Understand the controls and constraints on operations and their impact on efficiency, safety and security.

3.5. Understand the impact of synergies and conflicts between passenger and freight transport within the modes and how they are managed.

Assessment Criteria

The learner can:

3.1.1 Select an appropriate mode or combination of modes for any specific passenger movement, and the appropriate vehicle within the mode.

3.2.1. Analyse the capacity and resource requirements of the transport infrastructure with a view to improving service.

3.3.1. Undertake a modal split analysis.

3.4.1. Design and implement appropriate safety and security precautions for passenger terminals and interchanges.

3.5.1. Identify the potential synergies and conflicts between freight and passenger transport with a view to improving service.

Indicative Content

Suitability	Factors: accessibility; affordability; dependability; speed; frequency; comfort; convenience; capacity; safety; security. Objective and subjective performance. Perceived desirability.
Infrastructure, design and capacity	Infrastructure: the way; interchanges. Features: land take; environmental impact; capital and operating costs; lead time for construction; terrain; existing construction.
Intra-modal and intermodal techniques	The seamless journey: guaranteed connections; easy transfer. Modal split analysis: parking space provision; taxi amenities; feeder services.
Controls and constraints of operation	Controls: legal; regulatory. Risk assessment. Cost benefit analysis. Conflict between: speed; convenience; safety.
Synergies and conflict between passenger and freight operations	Synergies: infrastructure economies of scale. Conflicts: capacity constraints; speed differential; stopping patterns; routeings.

Element PD07-4

Movements

Learning Outcomes

The learner will:

4.1. Understand the characteristics of various types of service that may be required.

4.2. Understand the impact of resources on the types of service.

4.3. Know the factors that favour on-demand and own account transport, and their disadvantages.

4.4. Understand the concepts for managing passenger flows for the various modes.

4.5. Understand the application of joint supply/joint demand concepts.

4.6. Know the benefits and costs of improving products in transport services.

4.7. Know the legal controls and constraints of national and international movements of people.

Assessment Criteria

The learner can:

4.1.1 Analyse various types of service with a view to improving current provision.

4.2.1. Analyse the resource needs of different types of service.

4.2.2. Prepare resource plans for passenger services.

4.3.1. Analyse services to utilise the best combination of on-demand and own account transport.

4.4.1. Analyse existing passenger flows to reduce bottlenecks.

4.5.1. Apply joint supply/joint demand concepts to reduce costs and improve service.

4.6.1. Prepare a cost/benefit analysis for improving the product provided.

4.7.1. Carry out a risk assessment of the safety and security aspects of a journey.

Indicative Content

Services	Scheduled; “on demand”; seasonal; contract.
Impact on resources	Initial cost; lead time; marginal cost provision.
On-demand and own-account transport	Factors: availability; flexibility; suitability for purpose; user characteristics; business and social norms. Disadvantages: empty seat kilometres; costs of hiring, leasing; buying; congestion and pollution.
Managing passenger flows	Consolidation; divergence; processing; baggage; facilities required; information; managing flow; accommodating flow.
Joint supply/joint demand	Diverse market segments: using same service; using same terminal.
Improved product	Benefits; costs; social cost-benefit. Features: packages; refreshments; baggage handling; child care; retailing.
Legislation	Local; national; international; supranational International conventions.

Element PD07-5

Passenger Logistics and the Seamless Journey

Learning Outcomes

The learner will:

- 5.1. Understand the application of logistics principles to the movement of people.
- 5.2. Understand the components of the passenger network, the importance of the total logistics concept that integrate them and their relevance to the provision transport provider.
- 5.3. Know the importance of quality management and supply chain performance monitoring.
- 5.4. Understand the concept of generalised cost.

Assessment Criteria

The learner can:

- 5.1.1. Identify the causes of poor service delivery and implement methods aimed at reducing them.
- 5.2.1. Identify and use appropriate performance indicators for passenger transport.
- 5.3.1. Implement the collection and analysis of transport related performance data.
- 5.4.1. Use the principles of generalised cost in transport operations.

Indicative Content

Logistic principles in passenger movement	Principles: simplicity; co-operation; economy; flexibility; foresight. Purpose: right people; right place; right time; right condition; right price. Rules: achievement of end-user requirements; optimisation of the total system. Practices: agility; lean performance; JIT.
Passenger network and total logistics	Passenger network: origin; access to mode; journey; interchange; egress from mode; destination. Integrated operating systems: vehicles, tracks, terminals; crews; computer; reservation; forecast demand; organisation of flow; system imbalance.
Management, performance and information	Definition of quality; total quality management; business excellence; innovation; improvement. Analysis of failure: Pareto; cause and effect. Network performance. Information exchange. Performance indicators: direct/indirect/total service costs; route revenue; profitability; production of staff; incidence of lateness/cancellation. Analysis of complaints. Accident analysis.
Generalised cost	Typical elements: fares; journey time; access costs; access time; cost of unreliability; time at interchange; mode-specific cost.