



**DISABLED PERSONS TRANSPORT ADVISORY  
COMMITTEE**

**Consultation on**

**Accessibility Specification for  
Toilets on Aircraft**

July 2003

<b>Contents</b>	<b>Page</b>
Introduction	1
Purpose of the consultation	1
Summary of the consultation	2
Summary of consultation questions	3
Alternative formats	3
Consultation criteria: Code of Practice	3
Disclosure of Responses	4
How to respond	4
Closing date	4
Draft Specification	
Introduction	5
Section 1: Ease of locating and reaching toilets	8
Objectives	
Provisions	
Section 2: Accessibility features in all toilets	10
Objectives	
Provisions	
Section 3: Additional requirements for wheelchair accessible toilets	12
Objectives	
Provisions	
Section 4: Maintenance	15
Appendix 1: Colour Contrast	16
Appendix 2: References	17
Annex 1: About DPTAC	18
Annex 2: Consultation criteria: Code of Practice	19

## **Introduction**

For some time the Disabled Persons Transport Advisory Committee (DPTAC) has been concerned about the standard of toilet facilities provided for people with disabilities in many aircraft.

The Access to Air Travel for Disabled People - Code of Practice which was published by the Department for Transport in March 2003, states that " all wide bodied aircraft (and some single aisle aircraft) should be equipped with at least one spacious lavatory for disabled passengers catering for disabled people with a range of disabilities".

This Specification aims to make sure all disabled people are able to gain access to, move within and use toilet facilities on aircraft.

## **Purpose of the consultation**

The DPTAC Specification has been developed to help the aviation industry overcome the problem that many disabled people find it difficult or impossible to use toilet facilities on aircraft.

We are seeking the views and comments from both the aviation industry and disabled people on the following specification and will use the responses from this consultation to develop further a viable specification.

**Our specification will not be a statutory requirement.** It is intended to promote best practice in meeting the needs of disabled people. It will be a matter for individual airlines and aircraft manufacturers to decide whether to adopt the specifications on a voluntary basis.

## Summary of the consultation

This specification has been drawn up using existing specifications from around the world, a list of which are given in Annex 1.

The specification is in three parts:

- **Section 1: Ease of locating and reaching toilets** - this applies to all aircraft, including those with fewer than 30 seats. This section deals with identifying and being able to reach the toilet cubicle.
- **Section 2: Accessibility features in all toilets** - applies to all aircraft including those with fewer than 30 seats. This section outlines how to improve the design of facilities within the existing space by making it easier to identify and operate facilities and manoeuvre within the toilet.
- **Section 3: Additional requirements for wheelchair accessible toilets** - applies to twin aisle and single aisle aircraft. It does not apply to aircraft with fewer than 30 seats. This section, outlines design issues specific to wheelchair accessible toilets, and is additional to the design considerations for all toilets in Section 2.

We recognise that aircraft are built and configured in different shapes and sizes and that different solutions may be required for different aircraft. Airlines and aircraft manufacturers should consider what is the most appropriate and effective method of interpreting and implementing the specification.

It should also be recognised that the specification, which deals with the accessibility of the aircraft itself, is part of a larger picture. There are several other factors apart from the design of the aircraft that can affect accessibility such as operating procedures, staff training and passenger assistance policies.

## **Summary of consultation questions**

You are welcome to comment on any matter mentioned in this consultation paper, even where no specific question is asked.

The specific questions posed in this paper are summarised below:

1. Does the specification meet the needs of disabled people or are there additional requirements?
2. Does the specification meet the needs of the aviation industry?
3. Is the specification affordable?
4. Are manufacturers able to develop products in line with the specification?
5. Are there other legislative, regulatory or other requirements that would prevent the implementation of the proposed specification?

## **Alternative formats**

You can view this consultation document in full on the DPTAC website at [www.dptac.gov.uk](http://www.dptac.gov.uk)

The document can be downloaded free of charge using either Word format or PDF format using Adobe Acrobat. It is possible to alter the font and text size of documents on our website.

This consultation document is also available in large print, disk, Braille and audio tape. Details of how to order copies are given below.

## **Consultation criteria: Code of Practice**

This consultation is being carried out in accordance with the Government's Code of Practice on Written Consultation, a summary of which can be found in Annex 2.

## **Disclosure of responses**

We will make your response publicly available unless you ask us not to. Please make it clear if you would object to us copying or disclosing your response to others. All responses will be included in any summary of results, although individuals will not be identified. Names and addresses may be held in an electronic database of interested parties for the purpose of distributing future documents on similar issues.

## **How to respond**

Please send your comments on this specification to:

Ffion Grant  
DPTAC Secretariat  
Zone 1/14  
Great Minster House  
76 Marsham Street  
London SW1P 4DR

Tel: 020 7944 8011  
Fax: 020 7944 6998  
Text Phone: 020 7944 3277  
E-mail: [ffion.grant@dft.gov.uk](mailto:ffion.grant@dft.gov.uk) or [dptac@dft.gov.uk](mailto:dptac@dft.gov.uk)

If you are making specific comments or amendments, please use page and paragraph numbers.

You can also contact us at the above address if you would like more information about this consultation, if you have examples of good practice to bring to our attention, or if you would like to receive a copy of the final specification, to be published in 2004.

Representative bodies or organisations are asked to bring this paper to the attention of all the various interests they represent. Additional copies of this consultation paper may be obtained from us, full contact details are given above, or may be downloaded from the our web site at [www.dptac.gov.uk](http://www.dptac.gov.uk)

## **Closing date**

Please send us your comments **by 17<sup>th</sup> October 2003**.

# DPTAC Specification for Accessible Toilets on Aircraft

## Introduction

- 1 For some time DPTAC has been concerned about the standard of toilet facilities provided for people with disabilities in many aircraft. This is particularly apparent when wheelchair users are carried in aircraft; insufficient space is provided for both the safety and the comfort of the wheelchair users. However, the features for ambulant disabled people and those with sensory impairments also fall short of the ideal.
- 2 This specification was developed by the Disabled Persons Transport Advisory Committee's Aviation Working Group to help the aviation industry address the situation whereby many disabled people find it difficult or impossible to use toilet facilities on aircraft. It draws on existing guidance from around the world (Appendix 2).
- 3 DPTAC is the statutory advisor to the UK Government on the transport needs of disabled people. Our aim is to ensure that all disabled people can go where everyone else goes and that they can do so easily and without extra cost.
- 4 The specification aims to ensure all disabled people are able to gain access to, move within and use toilet facilities on aircraft.
- 5 General considerations used in developing this specification;
  - The needs of disabled people vary. Not all disabled people will require a full wheelchair accessible toilet. There are opportunities to improve access in all toilets for, amongst others, those with limited mobility, dexterity, vision or impaired hearing. The access provisions in non-wheelchair accessible toilets should not present any commercial or operational concerns.
  - 'Disabled people' are taken to mean those people defined as such under the provisions of the Disability Discrimination Act 1995.

- Provision of wheelchair accessible toilet facilities will need to balance the requirements and legitimate expectations of disabled passengers with commercial and operational concerns.
  - Aircraft are built and configured in different shapes and sizes, different solutions may be required for different aircraft.
  - **The use of an onboard wheelchair will be essential for many passengers, including some people who may normally not require a wheelchair but are less mobile within the confines of an aircraft.**
  - The specification assumes the provision of an on-board wheelchair where wheelchair accessible toilets are available.
- 6 The guidance contained in the specification relates only to particular requirements of disabled people. The facilities will also have to comply with the requirements of other relevant legislation and guidance.
- 7 It is recognised that it will take some time to achieve this specification in all aircraft. The specification is intended to assist those in planning and designing new facilities and for consideration in refurbishment of existing facilities.
- 8 The provisions in this specification are one means of achieving the objectives. **However, there may well be alternative ways of achieving the objectives of the specification from those outlined in the design considerations.**
- 9 Involving people with recognised expertise and knowledge of access issues in the design, manufacturing and purchasing teams will help ensure the most suitable means of ensuring the objectives are met. This is particularly important where alternative ways of achieving the objectives are proposed.
- 10 **DPTAC can not make or enforce legal requirements.** This specification has been developed to help stimulate the development of good practice.
- 11 Following the guidance in the DPTAC Specification is not required by law.
- 12 Users of this guidance should also read the UK Access to Air Travel for Disabled People - Code of Practice 2003. The

Government has announced its intention to take reserve regulation making powers, when a suitable legislative opportunity arises, to place the voluntary Code of Practice on a statutory basis if it fails to be adopted by the aviation industry.

# The DPTAC Specification

This specification is in three parts, covering:

Section 1: Ease of locating and reaching toilets

Section 2: Accessibility features in all toilets

Section 3: Additional requirements for wheelchair accessible toilets

## Section 1: Ease of locating and reaching toilets

### Objectives

- 1.1 This section applies to all aircraft, including those with fewer than 30 seats.
- 1.2 Not all disabled people will require assistance to use toilet facilities and the aim should be to enable independent use wherever possible. However, for people who do require assistance the ability to call for assistance is essential.
- 1.3 It is essential that on board wheelchairs are provided in all twin aisle aircraft and other aircraft with a wheelchair accessible toilet. Carriers should also assess the practical benefits of having an on-board wheelchair available on other aircraft.
- 1.4 Passengers should be able easily to identify the location and availability of a toilet facility. The toilet should be clearly identified and users should not be required to test the door to check availability.
- 1.5 The entrance to toilet facilities should be kept free of obstructions and have the minimum threshold possible. The ideal option for disabled people would be to provide level access to the toilet.

## Provisions

- 1.a Staff attending to calls for assistance should;
  - have received creditable disability awareness and equality training, treating the passenger with respect and courtesy.
  - consult with the passenger to identify the best method for providing assistance.
  - understand how to provide appropriate assistance, including how to operate any on-board wheelchair if required.
  - **However, staff will not give assistance in the toilet.**
- 1.b The onboard wheelchair should be properly stowed, maintained and conform to relevant technical guidance (such as SAE ARP4120 for On-Board Wheelchairs). Cabin crew should be trained and confident in its use.
- 1.c Signs should;
  - be clear and consistent;
  - have sufficient tonal contrast between the typeface and sign board to improve the legibility of the message.
  - have a minimum character height of 15-25mm.
  - contain both upper and lower case letters where appropriate
  - be located at between 1400-1700mm above floor level
  - include a pictogram.
- 1.d Level access must be the goal although small thresholds (of no more than 10mm) may be required for fluid retention or because modular toilets are inserted above the floor level. Where an on board wheelchair accessible toilet is provided, new aircraft should have a level threshold.
- 1.e The door to the toilet should contrast from its surroundings to aid identification. Further advice on achieving colour contrast is given in Annex 1. Outward opening doors can improve the manoeuvring space within a toilet cubicle but care must be taken to avoid potential hazards to other people passing the facility.
- 1.f A permanent integrated threshold ramp must be included if a threshold is retained and be clearly identifiable to prevent tripping. It should have a slip resistant surface.

## Section 2: Accessibility features in all toilets

### Objective

- 2.1 This section applies to all aircraft including those with less than 30 seats.
- 2.2 The objective of this guidance is to **improve the design of facilities within the existing space provided** by making it easier to identify and operate facilities and manoeuvre within the toilet.
- 2.3 Door handles, latches, locks, washbasins, toilets and other operational devices within the toilet should be easy to find, use and operate with the minimum of force.
- 2.4 Handrails should provide support and assistance to people who may be unsteady on their feet. In an aircraft environment this is likely to include many people who would not normally require such support.
- 2.5 The interior colour scheme in the toilet environment should assist users to understand the dimensions of the facility and location of controls. Advice on colour contrast is contained in Annex 1. The materials should minimise glare and reflectance from light sources.
- 2.6 Lighting within the toilet should be **sufficient** (150 lux recommended, 100 lux minimum) and avoid creating shadows and areas of sharp contrast.
- 2.7 An emergency call button should be fitted within the toilet cubicle.

## Provisions

- 2.a The door handle and lock should be mounted at a height of not less than 800mm and not more than 1000mm to permit use by a person in a seated position. They should be colour contrasted from their surroundings.
- 2.b The design of handles, locks and other operational devices should enable operation with one hand and minimal force (no more than 15N). A manual 'chunky' door lock which avoids the need for fine finger control, tight grasping, pinching or twisting of the wrist is preferred.
- 2.c Taps and other controls should be colour contrasted from their surrounding area. They should be operable with a closed fist and minimal force or be automatically controlled.
- 2.d Accessories, such as soap dispensers, towel dispensers and waste receptacles, should be easy to use, colour contrasted from their surrounding area and identified by embossed signs.
- 2.e The surface of the toilet seat when lowered should not be less than 475mm and not more than 485mm from the finished floor level.
- 2.f Handrails may be fixed or moveable but must be sturdy and conveniently located – ideally on the wall behind the toilet and beside the toilet.
- 2.g Handrails should be circular in cross section, free of any sharp or abrasive element and slip-resistant. They should have an exterior diameter (ideally between 30-35mm) and a clearance from the wall surface (30mm-45mm) to which they are attached that permit easy grasping. Handrails should be colour contrasted from their surrounding area. They should also return to the wall in a smooth curve.
- 2.h The washroom should have a call button that is colour contrasted from its surrounding area and identified by an embossed sign. The call button should be operable by the palm of one hand with minimal force (not more than 30N to prevent accidental use) and not require fine finger control, tight grasping, pinching or twisting of the wrist.

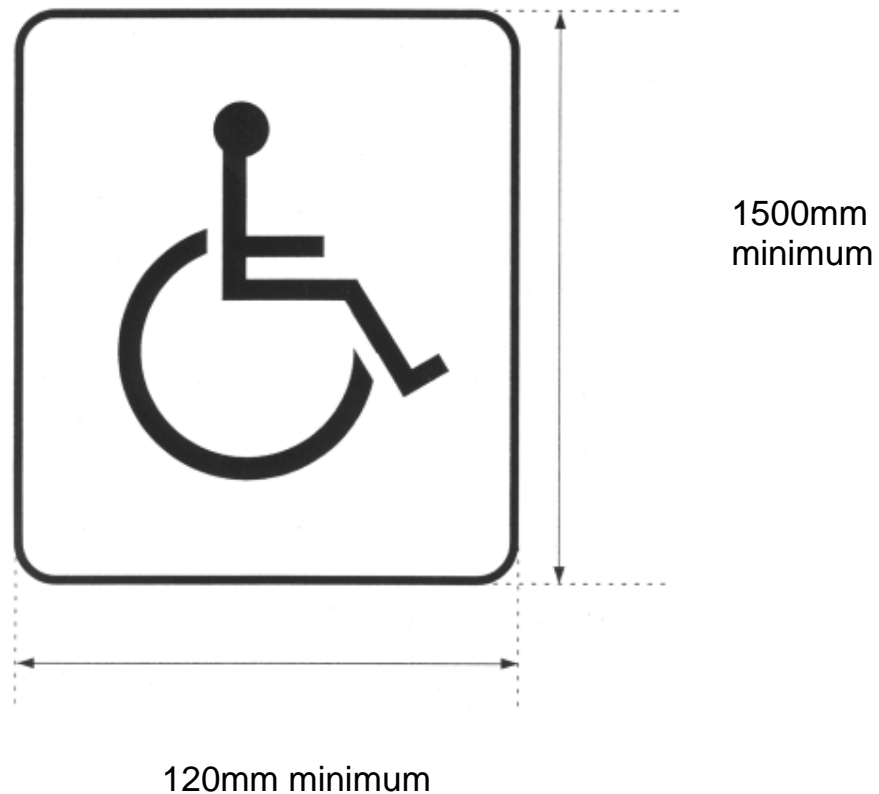
## **Section 3: Additional requirements for wheelchair accessible toilets**

### **Objectives**

- 3.1 This section applies to twin aisle and single aisle aircraft. It does not apply to aircraft with fewer than 30 seats. **This section, relating to wheelchair accessible toilets, is additional to the design considerations for all toilets in Section 2.**
- 3.2 All twin aisle aircraft newly designed or certificated must have at least one spacious toilet facility enabling independent use by disabled passengers requiring the use of the on board wheelchair for mobility.
- 3.3 All single aisle aircraft newly designed or certificated, should seek to provide at least one toilet accessible to passengers using an onboard wheelchair. If a design is proposed without such facilities evidence should be prepared to justify its exclusion.
- 3.4 Carriers and manufacturers are encouraged to be innovative in seeking to provide additional toilet facilities and to incorporate provision within existing aircraft during refurbishment.
- 3.5 The toilet should be identified as accessible to passengers using the on board wheelchair.
- 3.6 The dimensions of wheelchair accessible toilet facilities should enable a passenger, on-board wheelchair and assistant, if required, to be fully enclosed within the facility with the door closed.
- 3.7 The dimensions should allow for frontal, lateral, diagonal and backward transfer from and back onto an on-board wheelchair.
- 3.8 The toilet facility should be equipped with facilities to enable a disabled person to wash and dry their hands without moving from the seat of the toilet

## Provisions

- 3.a The toilet should be identified by the international symbol of access in pictogram and embossed form by or on the door.



- 3.b The toilet facility should enable a passenger using an onboard wheelchair and an assistant to be fully enclosed within the cubicle. This may be achieved through a single larger unit or created through the combination of two adjacent units with a moveable partition.
- 3.c The doorway should have at least 510mm of clear opening width to enable access by a person in an on-board wheelchair. It should also have enough space outside the door to manoeuvre that wheelchair.
- 3.d Approximately 1200mm width is required for transfer to the toilet pan.

- 3.e The toilet should have a back support if there is no seat lid, and a toilet paper dispenser within reaching distance that does not interfere with the grab bars.
- 3.f The washroom should have fixed or flip-up grab bars that are sturdy and conveniently located - on the wall behind the toilet and the walls beside the toilet. They should have a height and length that permit use by a person in an on-board wheelchair.
- 3.g Grab bars should be rounded, free of any sharp or abrasive element and slip-resistant. They should have an exterior diameter and a clearance from the wall surface to which they are attached that permit easy grasping.
- 3.h The paper, towel and soap dispensers should be within reach of the WC without obstructing the use of any handrail.
- 3.i The washbasin should be around 750mm from the floor surface and within reach of a person seated on the toilet pan.
- 3.j The call button should be mounted in a position that is accessible to a person using an onboard wheelchair and easily identifiable.

## **Section 4: Maintenance**

- 4.1 Disabled people need to be confident that facilities will remain in good working order and accessible. It is in the carriers interest to ensure all aircraft accessibility features are maintained in good working order.
- 4.2 Carriers should develop procedures to check and test accessibility features on aircraft at regular intervals, and particularly to ensure that locks are easy to use.
- 4.b In the event of equipment or facilities becoming unavailable procedures should be developed to minimise the inoperable period and to notify any passengers requiring accessibility features that facilities will not be available and set out alternative travel options.

## **Appendix 1: Guidance on achieving colour contrast**

Within a toilet a contrast between the door, wall panels and interior floor and sanitary ware will help reveal the layout of the toilet to a person with a visual impairment. A visual impaired person will often establish the dimensions of the space by locating the corners of a room, through the difference in floor and wall colour. The common practice of uniform appearance of sanitary ware and interior décor makes this process and therefore independent use more difficult.

When applying colour to two adjacent surfaces, to provide sufficient contrast, the contrast between the colours will be determined by the light reflectance value, the hue and by the chromatic value of each.

The light reflectance value (LRV) is the proportion of useful light reflected by a colour. This is generally measured in daylight conditions. LRV can be measured on a scale of 0-100, where 0 equals black and therefore total light absorption, and white equals 100 and therefore total light reflection.

In static conditions a difference of 30% or more is considered adequate although for key safety features it should be considerable greater. Further guidance on the use of colour and tonal contrast is contained in the Dulux Design Guide for the use of colour and tonal contrast.

Even simple changes such as a black toilet seat on a white pan can aid independence. Colour contrast does not necessarily mean bright yellow or red. A skilled designer, using the guidance, will be able to incorporate colour contrast into most interior design schemes.

## **Appendix 2: References**

### **Access to Air Travel for Disabled People - Code of Practice**

Department for Transport, 2003

([www.mobility-unit.gov.uk](http://www.mobility-unit.gov.uk) or [www.dft.gov.uk](http://www.dft.gov.uk))

### **Access to air travel - Guidance for disabled and less mobile passengers**

Disabled Persons Transport Advisory Committee (DPTAC) 2003

([www.dptac.gov.uk](http://www.dptac.gov.uk))

### **A330/A340 lavatory locations and designations**

Airbus Industries

### **ARP4120 Foldable On-Board Wheelchairs for Passengers with Disabilities**

Society of Automotive Engineers, 1998

([www.sae.org](http://www.sae.org))

### **ARP1315 Lavatory Installation**

Society of Automotive Engineers, 1998, [§23]

([www.sae.org](http://www.sae.org))

### **Carriage of Handicapped Persons**

Aerospace Industries Association (AIA) of America Inc Transport Airworthiness Requirements Committee, 1981

### **Code of Practice, Aircraft Accessibility for Persons with Disabilities**

Canadian Transportation Agency

### **Dulux Design Guide**

ICI Paints, Wexham Road, Slough, Berks, SL2 5DS

[www.duluxtrade.co.uk](http://www.duluxtrade.co.uk)

### **Lavatory Accessibility in Single-Aisle Aircraft,**

Aircraft Accessibility Federal Advisory Committee, US

Department of Transportation.1998

### **Suggested Guidelines for Accessible Lavatories in Twin Aisle Aircraft**

Air Transport Association of America, Ad hoc working group, 1992.

## **Annex A**

### The Disabled Persons Transport Advisory Committee Background

1. The Disabled Persons Transport Advisory Committee (DPTAC) was established under the Transport Act 1985, as an independent statutory body advising the Government on the transport and mobility needs of disabled people.
2. The committee has a maximum of 20 members and a Chairperson appointed by Ministers (of whom at least half must be disabled people), representing a wide range of transport interests. Members are unpaid, apart from the reimbursement of expenses.
3. Since summer 2000, DPTAC has also been responsible for advising the Government on the built environment needs of disabled people, as recommended by the Disability Rights Task Force
4. DPTAC provides expert advice on a broad range of transport and built environment issues aimed at improving access for disabled people, and carries out independent research on disabled people and their use of transport, with the aim of promoting a more inclusive society.
5. DPTAC's statutory remit is to consider matters referred to it by the Secretary of State, but it can also consider any other matter, such as advising on DDA Part III, which applies to airport operators, bus and train operators as service providers in relation to airports, rail and bus stations and associated infrastructure.

## **Annex B**

### **Consultation Code of Practice**

This consultation has been carried out in accordance with the Government's Code of Practice on Written Consultation. The Code of Practice requires that:

1. Timing of consultation should be built into the planning process for a policy (including legislation) or service from the start, so that it has the best prospect of improving the proposals concerned, and so that sufficient time is left for it at each stage;
2. It should be clear who is being consulted, about what questions, in what timescale and for what purpose;
3. A consultation document should be as simple and concise as possible. It should include a summary, in two pages at most, of the main questions it seeks views on. It should make it as easy as possible for readers to respond, make contact or complain;
4. Documents should be made widely available, with the fullest use of electronic means (though not to the exclusion of others), and effectively drawn to the attention of all interested groups and individuals;
5. Sufficient time should be allowed for considered responses from all groups with an interest. Twelve weeks should be the standard minimum period for a consultation;
6. Responses should be carefully and open-mindedly analysed, and the results made widely available, with an account of the views expressed, and reasons for decisions finally taken;
7. Departments should monitor and evaluate consultations, designating a consultation coordinator who will ensure the lessons are disseminated.