

APPENDIX E

THE ROLE AND CONTENT OF INTERNATIONAL GUIDELINES FOR AIRPORT ACCESSIBILITY

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INTRODUCTION

There is no denying that airports can be very stressful places, even for nondisabled persons. Just the gathering together of crowds of people can be oppressive, plus the need to absorb many and diverse pieces of information—flight numbers, gates, departure or arrival times; the whereabouts of check-in or baggage claim areas; the often physically demanding trek to and from the gate areas. The whole process of air travel can be difficult when you are fit—how much more so when you are disabled in some way.

The International Civil Aviation Organization (ICAO) has a responsibility under its founding convention to promote the free, expeditious, and unimpeded passage of an aircraft, its passengers, crew, baggage, cargo, and mail across international boundaries. So it was a natural progression for ICAO to include in its ongoing work of facilitating the international travel of passengers in general, the specific task of facilitating the international travel of elderly and disabled passengers. My mandate here today is to tell you about international guidelines on airport access, so the main emphasis will obviously be on ICAO's own work as a specialized agency of the United Nations, but I shall also be sketching in the background of the activities of the United Nations General Assembly and other international bodies, both governmental and nongovernmental, as well as touching on the activities of a few individual nations.

UNITED NATIONS ACTIONS

Since the early 1970s, the United Nations General Assembly (UNGA) has passed a number of resolutions concerning the rights of disabled persons based upon the principles of the Universal Bill of Human Rights. In 1975, the UNGA adopted the Declaration on the Rights of Disabled Persons affirming, for example, that disabled persons "have the same fundamental rights as their fellow-citizens" and "are entitled to measures designed to enable them to become as self-reliant as possible." Subsequently 1981 was proclaimed the International Year of Disabled Persons to bring about changes in attitudes and policies towards disabled persons, by a

concentration and focusing of efforts within the United Nations family, which is made up of organizations such as the World Health Organization (WHO), International Labour Organization (ILO), United Nations Educational, Scientific and Cultural Organization (UNESCO), United Nations Children's Fund (UNICEF), as well as ICAO. In 1982, a World Programme of action was adopted and the period 1983-1992 was declared the United Nations Decade of Disabled Persons in order to promote the implementation of required measures over a longer period (1).

The most recent U.N. Resolution, coming out at the halfway point of the Decade of Disabled Persons, contains the Tallinn Guidelines for action on Human Resources Development in the Field of Disability. These guidelines, named for the city in Estonia where they were adopted, call upon governments to adopt, enforce, and fund legally binding standards and regulations to improve access for persons with disabilities, ensuring that buildings, streets and road, sea and air transport are barrier free, architecturally and in all other ways. As always, U.N. specialized agencies are urged to take specific action in their areas of competence.

ICAO ACTION

In the U.N. Family, ICAO is the specialized agency with responsibility for civil aviation. Its founding convention was adopted in Chicago in 1944, and at present 163 states have acceded to the convention(2). The legal basis for the ICAO Facilitation program lies in Articles 22 and 23 of the convention under which each Contracting State agrees to prevent "unnecessary delays to aircraft, crews, passengers, and cargo" and to establish the relevant procedures "in accordance with practices established or recommended from time to time pursuant to the Convention." With respect to facilitation matters, as mandated by Article 37, these practices and procedures are established by means of the International Standards and Recommended Practices in Annex 9, Facilitation. Under Article 38, each State is obliged to notify ICAO of any differences between an international standard and the corresponding national practice of that

country, and ICAO is obliged to notify all other Contracting States accordingly. A State is *not* obliged to notify differences in respect of Recommended Practices but is *encouraged* to do so for the information of the international community.

In Annex 9 Standards are worded "States *shall* or *shall not* do such and such" and Recommended Practices "States *should* or *should not* do so and so." By this means, Annex 9, in fact, sets up a framework of Standards and Recommended Practices that designate the minimum facilities States are to provide for passenger convenience and the maximum requirements in the way of paperwork, restrictions of freedom of movement, etc. they are to impose. States are, of course, encouraged to provide *more* than the minimum facilities and to impose *less* in the way of requirements and restrictions.

Annex 9 provisions can be amended to reflect changing needs and the changing air transport environment. From time to time, a world conference is convened, known as a Facilitation Division, attended by ICAO Member States' own experts in all the many disciplines involved in facilitation: customs, immigration, consular, passport and visa, public health, agriculture, security, and narcotics control, as well as representatives from postal services, tourism and trade departments, airport authorities, and airline operators, including forwarders and express carriers—close to 400 Delegates on occasion. The ICAO Council acts to amend the Annex provisions on the recommendations of this body.

As early as 1968, before the U.N. initiatives I have already described, the Council, on the recommendation of the Seventh Facilitation Division, adopted a Recommended Practice urging that invalid passengers be assisted in making a direct transfer from one aircraft to another. But ICAO action to improve airport access for elderly and disabled persons has primarily been a response to the United Nations World Programme of Action. In 1988, the Tenth Facilitation Division amended that early Recommended Practice to apply to elderly and disabled passengers and adopted several new Annex provisions in the form of one new Standard and several new Recommended Practices(3).

The standard says that "Contracting States shall take the necessary steps to ensure that facilities and services are adapted to the needs of elderly and disabled persons"(4). The Recommended Practices deal with the following topics and are as follows:

- *Transportation to and from the airport.* "Where access to public services is limited, every effort should be made to provide accessible and reasonably priced ground transportation services, by adapting current and planned public transit systems, or by providing special transport services for the mobility impaired"(5).
- *Setting down and picking up.* "For elderly and disabled persons being set down or picked up at a terminal building, reserved points should be located as close as possible to main entrances. These should be clearly marked with appropriate signs. Access routes to the check-in desk area should be barrier-free"(6).
- *Parking and links to terminal.* "Adequate parking facilities should be provided for wheelchair users and appropriate measures taken to facilitate their movement between parking areas and the terminal buildings"(7).
- *Flight information for hearing- and vision-impaired.* "Measures should be taken to ensure that the hearing and vision impaired are able to obtain flight information"(8).
- *Movement between terminal and aircraft.* "Contracting States should ensure that lifting systems or any other appropriate device are made available in order to facilitate the movement of elderly and disabled passengers between the aircraft and the terminal on both arrival and departure as required where telescopic passageways are not used"(9).

The Standard, although framed in rather general terms, is most important because States *must* comply or notify ICAO that they do not or will not, and this will be published for the aviation community to see. The Recommended Practices do not carry quite the same legal obligation but are particularly valuable here, since they pinpoint the areas of prime importance and identify the particular facilities and services States should pay attention to, in fulfilling their obligation under the Standard. All these new provisions of Annex 9 will be published in the Ninth Edition of Annex 9 at the end of July 1990 and become effective at that time. The obligation to apply the new Standard commences on 15 November 1990 and States are required to notify by 30 October any deviation from the Standard that will exist at that time. They are also invited to notify any deviation from the Recommended Practices at that time. This then is the legal framework for ICAO's international guidelines for airport accessibility for elderly and disabled passengers.

SUPPLEMENTARY ACTION

Apart from this basic framework, ICAO has also adopted more detailed guidance material. This appears

in two places: in an Attachment to the future Ninth Edition of Annex 9, and in ICAO's already published Airport Planning Manual(10). The Attachment to Annex 9 provides guidance on several items as follows:

- *Consultation re ground transportation.* States should, in co-operation with airport authorities and other bodies as necessary, make every effort to provide accessible airport ground transportation services, to facilitate, to the extent possible, the use of taxi services and private transport, and to ensure that parking areas and access routes to terminal buildings are suitably designed and identified.
- *Building design principles.* New airport buildings should be designed to ensure obstacle-free movement for disabled persons and the removal of physical barriers in existing buildings should be undertaken when any general improvements are made.
- *Particular needs of sensory impaired.* The provision of services and facilities at airports should be evaluated to ensure that they are both accessible and adapted to disabled users including the sensory impaired.
- *Use of passengers' own wheelchairs.* Airport authorities should, in co-operation with airlines, make it possible, where practical, for wheelchair users to use their own wheelchairs to move to and from the aircraft door.
- *Training programs for personnel.* Airport authorities should, in cooperation with airlines, establish and coordinate training programs to ensure the availability of personnel sensitive to the needs of the elderly and disabled and familiar with means of communicating with the sensory impaired.

Finally, there is Chapter 9.11 of ICAO's Airport Planning Manual, which provides even more specific and detailed guidance material to assist airport authorities to take into account the requirements of elderly and disabled persons when they are preparing master plans for the renovation or expansion of existing airports and construction of new ones. It includes recommendations for design principles, the facilities that should be provided, and their location.

Firstly, the manual provides the following guidance with respect to design principles:

- *Walkways and Floors.* Exterior pedestrian walkways should be unobstructed and at least 1.5 m wide. At places where pedestrians or wheelchair users must cross curbs, a cut or ramp should be provided. Gratings, manhole covers, and similar potential

obstructions should be flush with the pavement. Pedestrian and vehicular traffic routes require effective separation. All interior public spaces should be connected by ramped paths or identified lifts, and public corridors should be free of obstructions. All abrupt changes in floor level should be clearly identified by audio and visual means. Interior and exterior floor surfaces should be level on each side of entrance doors, with floor mats recessed and fully secured and all floors should be maintained in a nonskid condition. All carpet areas should be of the low-pile, tight-loop type and fully secured to prevent movement.

- *Ramps.* Outside the terminal building, both ramps and stairs should be provided at every change in level. Ramps should not exceed one in twelve and should have nonslip surfaces. Handrails should be provided at least to one side. Inside the terminal building, ramps should be at least 1.2 m wide (1.5 m is even better) and again ramp slope should not exceed one in twelve. Surfaces should be nonslip. A level area, preferably 1.2 m long, should be provided at top and bottom of all ramps. Ramps more than 9 m long should have a level section at 9 m intervals (5 m for steeper ramps). At each change of direction a level landing should be provided. Handrails should be provided on each side of ramp. Ramps are preferable where minor changes in floor level occur. In general, unless the surface leading to a one in six ramp is flat or sloping down, wheelchair users have difficulty getting up this gradient. One in twelve ramps are difficult for other than the strongest wheelchair users; one in sixteen is better. Difficulties can also be experienced if ramps have to be approached from an angle and curbs at sides of ramps can be a problem. The height generally accepted for ramp curbs is 10 cm, although 5 cm minimum seems to be more acceptable. Curb edges need to be rounded and the finish at the top and bottom of the ramp carefully designed.
- *Stairs.* Stair treads should be of nonslip material. A landing midway in a stair run between floors is desirable. Open risers and projecting noses should be avoided. Handrails should be provided on both sides.
- *Elevators.* The only really effective way of moving chairbound people from floor to floor is by elevator. Where elevators are provided, at least one should be accessible to and usable by the disabled, including those in wheelchairs, both at the entrance level and at all levels used by the public. The elevator should be large enough to

accommodate a wheelchair and one or two standing persons. If automatic, the elevator controls should be located so they can be reached by a seated person. The cab should be self-levelling, and the doors should be adjusted to remain open for at least eight seconds, to close slowly, and to respond to both a sensitive safety edge and photoelectric cell door openers. An audio description of the floor reached is desirable. Directional signs to the lift should be placed at various points in the building.

- *Doors.* With respect to doors, if they are hand operated they should be openable by one hand and the handles should be of a lever type. Revolving doors are to be avoided. But where they are installed, an alternative hinged or sliding door should be provided. Door closers should be of a type to permit opening of the door with a minimum of effort and slow closing to allow uninterrupted passage of a wheelchair. Time-lapse devices that close doors after a prescribed delay should be avoided as they are dangerous to those who move slowly. Attention should be given to the direction of door swing so that wheelchair occupants can open doors without complex maneuvering. Doors in corner positions must permit easy approach and there should be an unobstructed space adjacent to the door handle. Side hung doors are preferred to sliding doors. Kick plates are recommended on doors used by wheelchair users.
- *Security gates, belts, and check tables.* All security gates should be at least 90 cm wide. All security conveyor belts and check tables should be at a height of 76 cm above floor.

Secondly, the Manual advises airport authorities concerning facilities that should be provided and how they should be identified. These are:

- *Signs.* The standard access symbol should be prominently displayed as a ready means of identification to disabled persons of all routes and areas where suitable facilities are provided. Directional signs and room identifiers are normally useless to blind people. It is desirable that identification of certain rooms (e.g., rest rooms, restaurants, and gate positions) by raised or depressed letters be placed on walls beside doors, not on doors, as sudden opening may result in injury.

- *Warnings.* Audible and visual signals to indicate a hazardous area (e.g., a door to an area used by baggage trucks) are desirable to protect blind and deaf people. Curbs, which serve as a warning to blind people using a cane, should be provided at any change from a pedestrian area to a roadway for vehicles. Visual and audible passenger information is desirable.
- *Guide maps.* Airport guide maps for blind or otherwise handicapped persons should be available.
- *Car parking.* It is desirable to provide identified reserved parking areas for physically disabled people, using the access symbol. Regulations should be enforced to ensure exclusive use of reserved parking spaces by the disabled. The parking spaces should be flat and protected from the weather. The route from the reserved parking to the terminal should be free of curbs and obstructions and located so that disabled people do not have to pass behind parked cars. Parking meters, attendants' windows, ticket machines, and similar devices should be within the limited reach and grasp of a disabled driver. Directional signs should indicate access routes to reserved parking areas.
- *Wheelchairs.* Wheelchairs should be available for people to move to taxi, bus, or private car loading areas. This service should be clearly advertised.
- *Protected entrances and exits.* There should be at least one main entrance without steps, usable by people in wheelchairs. Automatic opening doors are highly desirable. Level areas, protected from the weather, should be provided for boarding and delivery of people from cars, buses, etc.
- *Drinking fountains.* Controls should be hand-operated. The fountain should be low enough for use by wheelchair occupants, but high enough to allow the arm of the wheelchair to move beneath it.
- *Toilets.* Facilities should be accessible to wheelchair users and should include at least one WC compartment sized and fitted for use by the disabled, including wheelchair users.
- *Telephones and post boxes.* At least one in a group of telephones should be accessible by wheelchair users, with the handset and coin slots approximately 1 m above floor level. Telephone books should be located so they can be read from a seated position. Telephone operating instructions with raised lettering are desirable. Post boxes

should have an opening that can be operated by one hand, not more than 1 m above floor. Splayed legs should be avoided.

- *Means of embarkation and disembarkation.* Passenger loading bridges or flush coupling transfer vehicles are desirable for level or ramped access to and from aircraft. Where this is not provided, alternative transfer facilities should be available.

Finally, the Manual suggests the optimum location for certain facilities to improve traffic flow and minimize difficulties for disabled persons using the airport:

- *Parking areas.* Reserved parking areas should be located close to the terminal entrance.
- *Entrances and exits.* The areas for picking up and setting down people should be adjacent to main building entrances and exits.
- *Check-in.* Facilities should be as close as possible to passenger set-down areas for cars, buses, etc.
- *Baggage claim areas.* Routes to baggage claim areas should be designated by audible and visual means. It is desirable that baggage claim areas be at the same floor level as that at which the arriving passenger enters the terminal, if ramped or elevator access is not provided. Airport or airline personnel should be readily available to provide assistance to disabled people.
- *Baggage storage.* Areas for baggage storage should be located adjacent to main entrances and baggage claim areas. Storage systems should be easily operable by persons of limited manual dexterity.

To sum up, you can see that ICAO has first adopted a basic legal framework in the Annex Standard, which requires States to take steps to adapt facilities and services to the needs of elderly and disabled persons, along with Recommended Practices, which identify the facilities and services which need attention. ICAO has then fleshed out this framework with material of a more specific nature for the guidance of States in the Attachment to the Annex and in the Airport Planning Manual.

OTHER INTERNATIONAL ACTION

ICAO is not alone in responding to the U.N. initiatives. Other international bodies have also been active. The European Civil Aviation Conference (ECAC) adopted a recommendation in 1979 urging its Member States to:

- "Bear in mind the needs of physically handicapped passengers when planning new airport passenger terminals or modifications thereto;
- "Undertake a review of existing facilities and services for handicapped persons at their airports; and
- "Endeavour where necessary to improve upon these facilities"(11).

In 1985, the Twelfth Triennial Session of ECAC deleted this Recommendation from its active list as being satisfactorily implemented in its Member States(12).

The European Conference of Ministers of Transport (ECMT) is an intergovernmental organization established as a forum for the Members of Transport of 19 European countries with four associate Members including Canada and the United States(13). In 1978, the ECMT adopted a Resolution that recommended that governments:

- Pursue the design and introduction of improvements intended to give handicapped persons easiest possible access to existing transport services including long-distance services; and
- Seek in this connection to make it less burdensome and easier for handicapped persons and old people to use these services by planning appropriate measures regarding access to terminal facilities and vehicles(14).

The ECMT is satisfied that there has been considerable progress in making air services accessible to people in wheelchairs. Current work is directed towards a more detailed look at, among other things, terminal facilities for aviation services and further consideration to the harmonization of measures between Member States.

In 1980, the Latin American Civil Aviation Commission adopted a recommendation urging its Member States to examine existing facilities to determine the most urgent measures to facilitate the movement of handicapped persons at airport terminals and during embarkation and disembarkation operations of aircraft and to take account of the needs of such persons when planning new terminals or modifying existing ones(15).

The World Tourism Organization (WTO) has been active through a Committee of Affiliate Members and a special working party entrusted with promoting and improving travel and tourism possibilities for disabled persons. A preliminary report tabled a number of recommendations many of which echo the substance of

the ICAO guidelines, with others ranging more widely, to cover such things as orientation tours for blind passengers and access to hotels and restaurants(16).

The International Civil Airports Association (ICAA) has adopted very detailed design specifications and provisions, including wonderfully clear illustrations, in their publication "The Handicapped and the Airport"(17). The Airport Operators' Council International has published a guide to the accessibility of terminals worldwide called "Access Travel: Airports" which lists in schematic form all the necessary facilities available, or not available as the case may be, in over 500 airports around the world(18).

The International Foundation of Airline Passenger Associations (IFAPA) surveyed 40 organizations representing disabled passengers and the resulting report, identifying major problems facing such passengers, was taken into account by the Tenth ICAO Facilitation Division(19). The Foundation also concluded that there was a need for a "directory of information" on services available for disabled passengers and is seeking sponsorship for such a project.

The International Commission on Technical Aids Housing and Transportation (ICTA), based in Sweden, has published a study called "Airlines and Disabled Travellers," primarily directed at facilities on board aircraft, but including some material on the design and content of terminal buildings(20).

The International Air Transport Association (IATA) has published three guides covering all aspects of the airline portion of disabled passengers on journey. Airport access is not covered per se, but much helpful advice is given in the organization's "Incapacitated Passengers Air Travel Guide" concerning preboarding, transfers, and arrival arrangements. However, the use of escorts is emphasized, and this I know is a contentious issue. IATA has published two companion documents, a "Handling Guide" and a "Physicians Guide" for incapacitated passengers which set out the Associations' recommended procedures with respect to medical clearance and all aspects of traffic handling with the aim of improving uniformity between airlines(21). Again, quite naturally, these stress the airline viewpoint on such matters as seating assignments.

Finally, for the sake of completeness, I need to draw your attention to the work of one more organization, the International Organization for Standardization (ISO). It has not published material specifically related to airports but its design guidelines on the needs of disabled people in buildings are relevant for airport building design(22).

INDIVIDUAL GOVERNMENT ACTION

To complete this international scene, I have to tell you that a large number of individual governments have adopted measures to improve access to airports and provide various facilities for the elderly and disabled in response to the United Nations initiatives and ICAO recommendations. Some states, notably Argentina, Australia, Brazil, Canada, Germany, France, Italy, the Nordic countries, the United Kingdom, the United States, and Venezuela, have adopted detailed specifications and guidance material in this field, and many useful publications have been produced, primarily by Australia, Canada, the United Kingdom, France, and the United States. There is no time for me to review these now, but any further research in this field should take them into account. It is interesting to note that some governments, such as Canada and the United States, have chosen the legislative route and others, such as Australia and the United Kingdom, have relied on the consultative process to get the desired results.

FUTURE WORK

To provide individual States with more guidance in this field, ICAO's next task is to examine the accessibility of air transport *services* to elderly and disabled persons. This would involve a review of potential problems, starting from the provision of adequate information from the first telephone contact or travel enquiry of elderly and disabled persons to the accessibility of aircraft, the ability to move about, and the facilities and services on board aircraft.

A comprehensive study would also consider the right of self-determination (i.e., for elderly and disabled persons to decide themselves whether or not they need an attendant, and to be free from requirements to sign waivers of liability); free or reduced fares for transportation of attendants; and the availability of trained personnel in all phases of the transportation arrangements. Finally, if the review is to be truly comprehensive, it would probably also need to include such aspects as aircraft interior design and aviation medicine.

CONCLUSION

My exhaustive, but hopefully not exhausting, review of international guidelines for airport accessibility should have demonstrated one thing: there is a great deal of

research material and guidance already in existence, and it is important that this material does not end up as a heap of paper to put somewhere on the bookshelf. This workshop will be a force for further research and harmonization of airport access measures in the United States, but in my view the key requirement for the future is to get similar measures harmonized and implemented worldwide.

I believe that the role of ICAO's guidelines, being underpinned as they are by the legal framework of Chicago Convention, is to provide a basis for that harmonization and worldwide implementation. States can be encouraged, if not pushed, to honor their obligation under the Convention, and this is probably a worthwhile avenue for societies or organizations representing the interests of disabled persons to pursue.

For international travel by disabled persons, another ongoing research need, in my opinion, is that of collecting current information on the status of the relevant facilities and services at airports—in other words, the degree of implementation achieved throughout the world. This information, along with information on the societies or organizations representing or providing assistance to the disabled in each country, should be disseminated, to all such organizations and to airlines, airports, and governmental authorities worldwide. Perhaps this, too, is something that disabled people can get together to do for themselves. In conclusion, I should like to quote an African proverb from a speech of the Executive Secretary of the International Year of the Disabled: "Separate and taken in isolation, the fingers of the hand are weak, but united they constitute a force"(23).

NOTES:

1. UNGA Resolutions:
 - Declaration on the Rights of Disabled Persons Resolution 3447XXX, 1975;
 - 1981 - International Year of Disabled Persons Resolution 32.133, 1976;
 - World Programme of Action concerning Disabled Persons, Resolution 37.52, 1982;
 - 1983-1992 United Nations Decade of Disabled Persons, Resolution 37.53, 1982; and
 - Tallinn Guidelines for Action on Human Resources Development.
2. Convention on International Civil Aviation, ICAO Doc 7300.
3. Paragraph 6.24 of Annex 9, now amended to refer to elderly and disabled passengers and re-numbered as 6.35 in the Ninth Edition of Annex 9.
4. Standard 6.1.1 in the Ninth Edition of Annex 9.
5. Recommended Practice 6.16.1 in the Ninth Edition of Annex 9.
6. Recommended Practice 6.15.1 in the Ninth Edition of Annex 9.
7. Recommended Practice 6.18.1 in the Ninth Edition of Annex 9.
8. Recommended Practice 6.13.2 in the Ninth Edition of Annex 9.
9. Recommended Practice 6.11 in the Ninth Edition of Annex 9.
10. Doc 9184 - AN.902 Airport Planning Manual, Part 1, Master Planning.
11. Recommendation 14 ECAC 10th Triennial Session, 1979.
12. Recommendation 21 ECAC 12th Triennial Session, 1985.
13. Australia, Belgium, Denmark, Finland, France, Germany, Greece, Ireland, Italy, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland, Turkey, United Kingdom, Yugoslavia. Associate members include Australia, Canada, Japan, and the United States of America.
14. Resolution number 38 of 1978.
15. Recommendation A4-8, LACAC 4th Plenary Session, 1980.
16. Reported in U.N. Disabled Persons Bulletin No. 2.88.
17. *The Handicapped and the Airport*, 2nd Edition, ICAA, December 1981.
18. *Access Travel: Airports*, 5th Edition, AOCI, October 1985.
19. Report provided to ICAO by IFAPA, Geneva, July, 1987.
20. Airlines and Disabled Travellers ICTA Information Centre, Stockholm, 1977.
21. *Incapacitated Passengers Air Travel Guide*, 2nd Edition, IATA, Montreal, 1981; *Incapacitated Passengers Handling Guide*, 2nd Edition, IATA, Montreal, 1981; *Incapacitated Passengers Physicians Guide*, 2nd Edition, IATA, Montreal, 1981.
22. ISO - Needs of disabled people in buildings, ISO, Geneva, 1981.
23. Speech by Mrs. Z.L. N'Kanza at the opening of the Second Session of the Advisory Committee for the International Year of the Disabled.