ICAO UNITING AVIATION

Aerodrome Compatibility

(Chapter 4 of the PANS-Aerodromes, 1st ed)

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Chapter 4 - Aerodrome compatibility

Introduction:

4.1.1 This chapter outlines a methodology and procedures to assess the compatibility between aeroplane operations and aerodrome infrastructure and operations when an aerodrome accommodates an aeroplane that exceeds the certificated characteristics of the aerodrome.

4.1.2 A compatibility study should be performed collaboratively between affected stakeholders which includes the aerodrome operator, the aeroplane operator, ground handling service providers, as well as air navigation service providers (ANSPs).

4.1.3 Steps for the introduction of an aeroplane type/subtype new to the aerodrome:

1. the aeroplane operator submits a request to the aerodrome operator to operate an aeroplane type/subtype new to the aerodrome;

2. the aerodrome operator identifies possible means of accommodating the aeroplane type/subtype including access to movement areas and, if necessary, considers the feasibility and economic viability of upgrading the aerodrome infrastructure; and

3. the aerodrome operator and aircraft operator discuss the aerodrome operator's assessment, and whether operations of the aeroplane type/subtype can be accommodated and, if permitted, under what conditions.

4.1.4 The following procedures should be included in the aerodrome compatibility study:

a) identify the aeroplane's physical and operational characteristics (see Attachments A, B and D);

b) identify the applicable regulatory requirements;

c) establish the adequacy of the aerodrome infrastructure and facilities vis-à-vis the requirements of the new aeroplane;

d) identify the changes required to the aerodrome;

e) document the compatibility study.

4.1.5 The result of the compatibility study should enable decisions to be made and should provide:

a) the aerodrome operator with the necessary information in order to make a decision on allowing the operation of the specific aeroplane at the given aerodrome;

b) the aerodrome operator with the necessary information in order to make a decision on the changes required to the aerodrome infrastructure and facilities to ensure safe operations at the aerodrome with due consideration to the harmonious future development of the aerodrome; and

c) the State with the information which is necessary for its safety oversight and the continued monitoring of the conditions specified in the aerodrome certification.

4.2 IMPACT OF AEROPLANE CHARACTERISTICS ON THE AERODROME INFRASTRUCTURE

- Consideration of the aeroplane's physical characteristics;

- Consideration of the aeroplane's operational characteristics

4.3 PHYSICAL CHARACTERISTICS OF AERODROMES

In order to adequately assess the aeroplane's compatibility, aerodrome physical characteristics should be included in the evaluation process. These characteristics are detailed in the Appendix to Chapter 4.

Appendix to Chapter 4

Physical Characteristics of Aerodromes

1) Runways

- Runway Length
- Runway Width
- Runway Shoulders
- Runway Turn Pads
- Runway Strips
- Obstacle on runway strips

Appendix to Chapter 4

Physical Characteristics of Aerodromes (cont'd):

2) Runway End Safety Area
3) Taxiways and Taxiway curves
4) Runway and Taxiway minimum separation distances
5) Taxiway and Taxilane minimum separation distances
6) Taxiway on bridges
7) Taxiway shoulders
8) Clearance distance on aircraft stands
9) De-icing/Anti - icing facilities
10) Pavement Design

Attachment A to Chapter 4

Aeroplane Physical characteristics that may have an impact on the relevant aerodrome characteristics, facilities and service in the movement area:

1. Fuselage Length
2. Fuselage Width
3. Door Sill Height
4. Aeroplane Nose Characteristics
5. Tail Height
6. Wingspan
7. Wing Tip Vertical Clearance
8. Cockpit View

Attachment A to Chapter 4

Aeroplane Physical characteristics (cont'd):

9. Distance from the Pilots Eye Position to the Nose Landing Gear
10. Landing Gear Design
11. Outer Main Gear Wheel Span
12. Wheel Base
13. Gear Steering System
14. Maximum Aeroplane Mass
15. Landing Gear Geometry, Tire Pressure and ACN Values
16. Engine Characteristics
17. Maximum Passenger and Fuel carrying Capacity
18. Flight Performance

Attachment B to Chapter 4

Aeroplane ground servicing characteristics and requirements that may affect the available aerodrome infrastructure:

a) Ground power

b) Passenger embarking and disembarking

c) Cargo loading and unloading

d) Fuelling

e) Pushback and towing

f) De-icing

g) Taxiing and marshalling

h) Aeroplane maintenance

i) RFF

j) Equipment areas


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