# ICAO to Doc 4444 (PANS-ATM)

Amendment 8: remote tower text (effective 8 November 2018)

The text below shows deleted text with a line through it and new text highlighted with grey shading:

1. Text to be deleted is shown with a line through it.

2. New text to be inserted is highlighted with grey shading. new text to be inserted

3. Text to be deleted is shown with a line through it followed by the replacement text which is highlighted with grey shading.

new text to replace existing text

text to be deleted

## **Chapter 1 DEFINITIONS**

**Visual surveillance system.** An electro-optical system providing an electronic visual presentation of traffic and any other information necessary to maintain situational awareness at an aerodrome and its vicinity.

### Chapter 7 PROCEDURES FOR AERODROME CONTROL SERVICE

#### 7.1 FUNCTIONS OF AERODROME CONTROL TOWERS

#### 7.1.1 General

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7.1.1.2 Aerodrome controllers shall maintain a continuous watch on all flight operations on and in the vicinity of an aerodrome as well as vehicles and personnel on the manoeuvring area. Watch shall be maintained by visual observation, augmented in low visibility conditions when available by an ATS surveillance system when available. Traffic shall be controlled in accordance with the procedures set forth herein and all applicable traffic rules specified by the appropriate ATS authority. If there are other aerodromes within a control zone, traffic at all aerodromes within such a zone shall be coordinated so that traffic circuits do not conflict.

Note.— Provisions for the use of an ATS surveillance system in the aerodrome control service are contained in Chapter 8, Section 8.10.

7.1.1.2.1 Visual observation shall be achieved through direct out-of-the-window observation, or through indirect observation utilizing a visual surveillance system which is specifically approved for the purpose by the appropriate ATS authority.

Note 1.— For the purposes of automatic recording of visual surveillance system data, Annex 11, 6.4.1 applies.

Note 2.— Guidance material on the implementation of the remote tower concept for single mode of operation can be found in the Annex to European Aviation Safety Agency (EASA) Executive Director Decision 2015/014/R (3 July 2015).

# 7.12 USE OF A VISUAL SURVEILLANCE SYSTEM IN AERODROME CONTROL SERVICE

### 7.12.1 Capabilities

7.12.1.1 Visual surveillance systems used in the provision of aerodrome control services shall have an appropriate level of reliability, availability and integrity. The possibility of system failures or significant system degradations which may cause complete or partial interruptions of service shall be assessed and taken into account in the definition of the level of service provided in order to ensure that there is no degradation in the safety level of the services rendered. Backup facilities or alternative operational procedures shall be provided.

Note.— A visual surveillance system will normally consist of a number of integrated elements, including sensor(s), data transmission links, data processing systems and situation displays.

7.12.1.2 Visual surveillance systems should have the capability to receive, process and display, in an integrated manner, data from all connected resources.

## 7.12.2 Functions

- 7.12.2.1 When approved by and subject to conditions prescribed by the appropriate ATS authority, visual surveillance systems may be used in the provision of aerodrome control service to perform the functions listed in 7.1.
- 7.12.2.2 The level of service to be provided shall be commensurate with the technical capabilities of the system.