



ICAO

International Civil Aviation Organization

**FOURTH MEETING OF SPECTRUM REVIEW
WORKING GROUP (SRWG/4)**

Web-conference, 9 – 10 June 2020

Agenda Item 3: Frequency coordination process and improvement for the Asia/Pacific Region

**INTRODUCTION OF SIGNAL MONITORING FOR ILSs USING SAME FREQUENCY
BUT DIFFERENT IDENTIFIERS AT BOTH ENDS OF THE SAME RUNWAY**

(Presented by China)

SUMMARY

This paper introduces the signal monitoring for ILSs which using same frequency but different identifiers at both ends of the same runway in China.

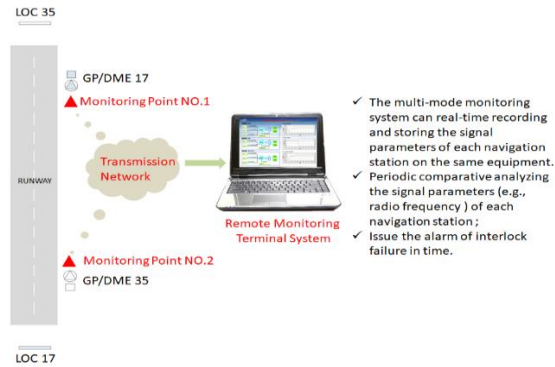
1. INTRODUCTION

1.1 It is a common practice in many countries to assign the same frequency but different identifiers at both ends of the same runway in order to solve the problem of ILSs frequency strain in some airports dense area.

1.2 ILSs were assigned with same frequency but distinct identifiers at the fifth runway at Shanghai Pudong international airport and both three runways at Beijing Daxing international airport, the interlock equipment is used to ensure that the non-operating LOC, GP and DME do not operates simultaneously.

1.3 In the operation process above, human factor or failure of interlock could lead navigation indication error and aircraft flight path loss. Therefore, it is necessary to strengthen the monitoring of signal quality of ILSs.

1.4 Studies on the signal monitoring for the ILSs at Pudong international airport were conducted by CAAC in early 2019. The monitoring sensor was installed near the GP at both ends of runway which collects the ILS signals, and then analyzed by remote terminals, as shown in the figure below.



1.5 Through the real-time analysis and comparison of the collected ILS signals, the abnormal signal can be detected in time.

2. ACTION BY THE MEETING

2.1 The meeting is invited to:

- note the information contained in this paper; and
- discuss any relevant matter as appropriate
