



International Civil Aviation Organization

**NINETEENTH MEETING OF THE COMMUNICATIONS/NAVIGATION
AND SURVEILLANCE SUG-GROUP (CNS SG/19) OF APANPIRG**

Bangkok, Thailand, 20 – 24 July 2015

Agenda Item 8.1: Air Navigation Reporting Forms and Seamless ATM Reporting Process

**INTRODUCTION OF NEW GENERATION CNS EQUIPMENT CERTIFICATION AND
DEVELOPMENT IN CHINA**

(Presented by China)

SUMMARY

This Information Paper presents the procedures of CNS equipment certification and the development of new generation CNS equipment in CAAC.

1. INTRODUCTION

1.1 Communication, Navigation and Surveillance System is the infrastructure to provide safe and efficient services for civil aviation. To ensure the CNS equipment compliance with ICAO's SARPs and meeting the operational requirements, CAAC established the CNS equipment validation and certification system in 2002 and continued to improve it.

1.2 CAAC has been very concerned about the development of CNS new technologies, the corresponding technical requirements and equipment testing requirements have been formulated and published.

2. DISCUSSION

2.1 CAAC CNS equipment validation and certification processes cover the phases of system design, development, manufacture, quality control, after sales services inspecting etc. It sets up the rules and procedures of certification and provides means of factory checking and quality control system evaluation, design review and factory testing, onsite stability and reliability testing to eliminate the potential defect issues at any stage of system development and manufacture. The validation and certification is based on ICAO SARPs, operational requirements and relevant technical specifications.

2.2 To deal with the booming growth of air traffic, CAAC encourages the development and implementation of satellite based new generational CNS technology and systems. The validation and certification system has been updated to adapt new products and requirements.

2.3 Along with the enhancement of aviation industry in China, a number of new generation CNS equipment developed by Chinese domestic manufactures have been certified or deployed, including ADS-B and GBAS. The services provided by these equipment improved flight safety and efficiency

2.3.1 Till 2020, over 600 ADS-B ground stations and 10 Surveillance data center will be deployed in China. A complete ADS-B operation surveillance system and information service system will be built to provide all-airspace surveillance means for air traffic and comprehensive ADS-B information services for airlines and strengthen the safety support capacity and service level of air traffic control and airlines.

2.3.2 Furthermore, some domestic manufactures are making significant progress on R&D of GBAS at present. CAAC are focus on the GBAS which can augment the GPS signals as well as BeiDou.

3. ACTION BY THE MEETING

3.1 The meeting is invited to:

- a) note the information contained in this paper; and
- b) discuss any relevant matters as appropriate.
