



**54<sup>th</sup> Conference**  
**Directors General of Civil Aviation**  
**Asia and Pacific Regions**  
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Agenda Item 3, DGCA-54/DP/3/37  
**Risk-based Approach to Managing Safety in India**

# Summary

- ICAO Annex 19 to convention requires member states to:
  - ❖ Develop State Safety Programme (SSP) outlining regulations and activities implemented by State to manage aviation safety
  - ❖ Develop operating regulations on Safety Management Systems (SMS), a risk based management system, required to be implemented by aviation service providers
- India developed State Safety Programme (SSP) and Specific operating regulations for establishment of SMS among service provider

# Introduction

- Year 2010
  - ❖ Rule 29C incorporated in Aircraft Rules 1937 for establishment of State Safety Programme
  - ❖ Rule 29D incorporated for introduction of SMS by service providers as mandated in ICAO Annexes 1, 6, 8, 11, 13 and 14
- Rule 29D of Aircraft Rules 1937 amended to incorporate ICAO SARP as contained in Annex 19, Edition 1
- Process for compliance with Annex 19, Edition 2 in progress

# Introduction

- For implementation of State Safety Programme at State level and SMS at service provider level
  - ❖ SSP - India issued
  - ❖ Following subordinate legislations issued
    - Civil Aviation Requirement, Section 1, Series C, Part I
    - Guidance on Gap Analysis Tool & Hazard Log
  - ❖ Amended to be compliant with the ICAO SARP as contained in Annex 19, Edition 2

# Introduction

- Gap Analysis with Annex 19, Edition 2 carried out and changes in relevant documents in progress
- Seven State Safety Priorities (SPIs) identified along with
  - ❖ Associated lead and lag performance indicators;
  - ❖ Safety objectives; and
  - ❖ Safety action plan
- Based on analysis of aggregate data, performance of State Safety Priorities and associated safety performance indicators assessed
  - ❖ Lead to identifying areas of greater concern, adjust safety action plan and targets

# Annex 19 Edition 2

## (Protection of Safety Data)

- Provision already exists in Primary legislation for protection of safety data under Annex 13
- Protection of information received as part of confidential and voluntary reporting system recently introduced in primary legislation
  - ❖ Includes protection of source of information
  - ❖ Incorporation of provision for protection of other safety data obtained under SDCPS is in process

# Implementation of SSP and SMS

- Established required structure
- Implementing SSP
- Supporting Service Providers to implement their SMS

# Safety Performance Measurement and Establishment of Basic ALoS

- New data collection, storage and analysis processes being developed to provide more accurate picture of aviation safety performance
- Establishment of SPIs enabled India to establish basic State Acceptable level of safety performance (ALoS) and a State Safety Plan available on DGCA website [www.dgca.nic.in](http://www.dgca.nic.in).
- Seven SPIs are:
  - ❖ Airborne conflict
  - ❖ Controlled flight into terrain
  - ❖ Runway excursions and overruns
  - ❖ Wildlife and bird strikes
  - ❖ Loss of control in flight
  - ❖ Ground collisions and ramp safety
  - ❖ Deficient maintenance



# Safety Performance Measurement and Establishment of Basic ALoS

- India implemented processes for measuring safety performance at State level
  - ❖ Result of measurement of safety performance framework published as Annual Safety Review 2016 available on DGCA India website [www.dgca.nic.in](http://www.dgca.nic.in).
  - ❖ Similar exercise undertaken for the following year
  - ❖ Based on analysis and experience gained, India is in process of further defining ALoS
- At service provider level, India is in process of acceptance of Safety Performance Indicators of mature service providers

# Action by Conference

- Note information contained in this Paper
- Take action to develop robust guidance on risk based surveillance
- Take action for developing specific guidance for implementation of SMS in type design and manufacturing organisations

**Thank You**