



| ICAO

CAPACITY & EFFICIENCY

NO COUNTRY LEFT BEHIND



Global methodology for assessing and reporting runway surface conditions

Arthemon Ndikumana

Deputy Regional Director

ICAO ESAF

Nairobi Kenya 21/22 October 2020



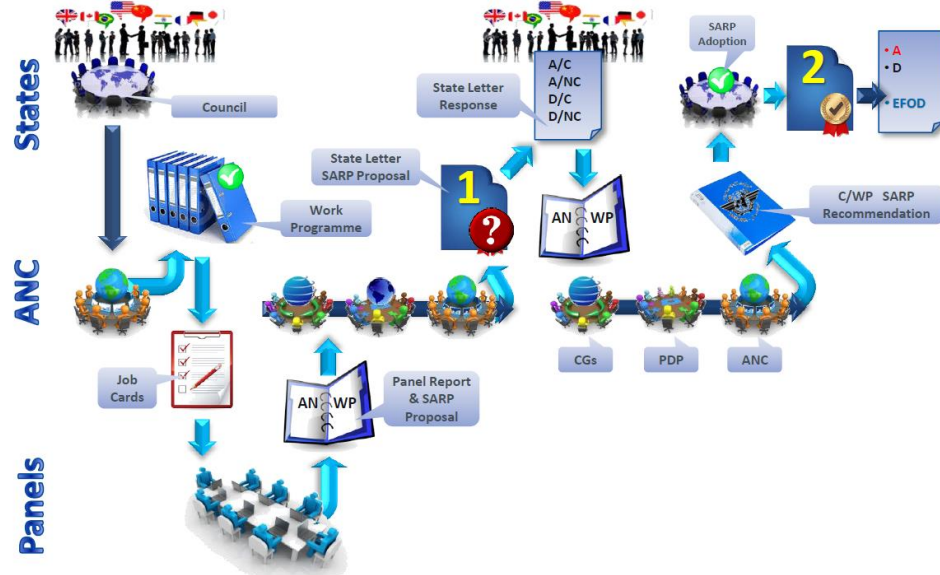


Background

- Runway Friction included in the ICAO Aerodromes Panel work programme in 2004;
- Questionnaire on Runway Surface Friction Characteristics sent to States (SL06/48) in 2006
- Friction task force (FTF) established in 2008
- Supported by ICAO panels: METP, FLTOPS, AIRP, AIM-AIS SG, ATMOPSP
- Developed a globally-harmonized methodology for runway surface condition assessment and reporting



SARPs Development Process



- Council reviews ANC proposal
- Within weeks of adoption, interim edition sent to States
- 3 months to indicate disapproval of adopted amendments
- Effective Date approximately 4 months after adoption by Council
- Normally, 4 months between Effective Date and Applicability Date
- One month prior to the Applicability Date, States notify the Secretariat of any differences



ICAO Provisions on GRF

- **Annex 14, Volume 1 and PANS-Aerodromes:** fundamental provisions for assessing and reporting runway surface conditions
- **Annex 6, Parts I and II:** assessment by the pilot-in-command of the landing performance and report for commercial air transport operations
- **Annex 8:** nature of the information provided by the aircraft manufacturers in flight manuals;
- **Annex 3:** removal of the runway state group for METAR/SPECI
- **Annex 15 and PANS-AIM:** syntax and format used for dissemination;
- **PANS-ATM:** phraseology and communication of special air-reports concerning runway braking
- **Guidance materials**
 - *Aeroplane Performance Manual (Doc 10064)*
 - *Circular 355 Assessment, Measurement and Reporting of Runway Surface Conditions*



ICAO

CAPACITY & EFFICIENCY

NO COUNTRY LEFT BEHIND



ICAO Provisions on GRF

- **Annex 14, Volume 1** (sets out the provisions for the introduction of, inter alia, the RCR, RWYCC and the descriptors for assessing and reporting the runway surface condition)
 - *Chapter 1. General – Definitions*
 - *Chapter 2. Aerodrome data - 2.9 Condition of the movement area and related facilities*
 - *Chapter 10. Aerodrome maintenance - 10.2 Pavements and 10.3 Removal of contaminants*
 - *Attachment A. Guidance material supplementary to Annex 14, Volume 1*
- **PANS-Aerodromes, Part II, chapter 1** (contains globally-harmonized procedures complementing the high level requirements in Annex 14, Volume I). It provides guidance on:
 - *the concept, objectives and content of the RCR*
 - *how to assess a runway surface condition and assigning a RWYCC including procedures for the downgrading or upgrading of the codes*
 - *the use of the runway condition assessment matrix (RCAM) and the requisite operational practices in support of a global reporting format*



ICAO Provisions on GRF

- **Annex 3** (remove the runway state group in the aerodrome routine and special meteorological report (METAR/SPECI) since its continued use would represent a parallel information stream as a duplication of the proposed new provision contained in Annex 15)

Appendix 3. Technical specifications related to meteorological observations and reports.

- *4.8 Supplementary information*
- *Table A3-2. Template for METAR and SPECI*
- *Table A3-5. Ranges and resolutions for the numerical elements included in METAR and SPECI*

- **Annex 8, PART IIIB** (concerns the nature of the information provided by the aircraft manufacturers) – *Chapter 2. Flight*



ICAO

CAPACITY & EFFICIENCY

NO COUNTRY LEFT BEHIND



ICAO Provisions on GRF

Annex 6, Parts I and II (establish the requirement for the pilot-in-command to assess the landing performance prior to landing and a requirement for commercial air transport operations to report when the braking action encountered is not as good as reported)

– Annex 6, Part I

- *Chapter 1. – Definitions*
- *Chapter 4. - Flight operations - In-flight procedures*
- *Chapter 5. - Aeroplane performance operating limitation - 5.2 Applicable to aeroplanes certificated in accordance with Parts IIIA and IIIB of Annex 8*

– Annex 6, Part II

- *Section 2. Chapter 2.2 - Flight operations*
- *Section 3. Chapter 3.5 – Aeroplane performance operating limitations*



ICAO

CAPACITY & EFFICIENCY

NO COUNTRY LEFT BEHIND



ICAO Provisions on GRF

- **Annex 15 and PANS-AIM** (dissemination of information that is harmonized with the provisions in Annex 14, Volume I and PANS-Aerodromes as well as the performance information required to be used in the operation of aeroplane)
 - *Chapter 1. – Definitions*
 - *Chapter 5. - NOTAM*
 - *Chapter 7. – Aeronautical Information Circulars (AIC)*
 - *Appendix 2. - SNOWTAM FORMAT*



ICAO

CAPACITY & EFFICIENCY

NO COUNTRY LEFT BEHIND



ICAO Provisions on GRF

- **PANS-ATM** (Correct taxonomy and phraseology to be used throughout the communication chain from the ground staff, through ATS to the flight crew)
 - *Chapter 1. – Definitions*
 - *Chapter 4. - 4.12 Reporting of operational and meteorological information*
 - *Chapter 7. – 7.5 Essential information on aerodromes conditions*
 - *Chapter 11. – Air Traffic services messages*
 - *Chapter 12. - 12.3 ATC Phraseologies*
 - *Appendix 1. – Instructions for air reporting by voice communication*



ICAO

CAPACITY & EFFICIENCY

NO COUNTRY LEFT BEHIND



Implementation task list

- Updating State's regulatory framework
 - ❖ updating National regulations
(transposition of ICAO provisions to the national regulations)
 - ❖ filing differences / publishing significant differences in AIP (if required)
- Establishment of a national implementation plan that takes into account the modified ICAO provisions;





ICAO

CAPACITY & EFFICIENCY

NO COUNTRY LEFT BEHIND



ICAO

North American
Central American
and Caribbean
(NACC) Office
Mexico City

South American
(SAM) Office
Lima

ICAO
Headquarters
Montréal

Western and
Central African
(WACAF) Office
Dakar

European and
North Atlantic
(EUR/NAT) Office
Paris

Middle East
(MID) Office
Cairo

Eastern and
Southern African
(ESAF) Office
Nairobi

Asia and Pacific
(APAC) Sub-office
Beijing

Asia and Pacific
(APAC) Office
Bangkok



THANK YOU