

ICAO/ACI Symposium on
Implementation of the new Global
Reporting Format For Runway Surface
Conditions (GRF2019)
Nairobi, Kenya 14 August 2019
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Runway Surface Condition Reporting: Airport Operator's Perspective

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Overview

- Africa has about 160 international airports
- Africa had a 1.4% increase in aircraft movement in 2018 with about 3million movements (ref: ACI WATR 2018)
- About 20 runway excursion incidents were recorded in Africa between 2008 and 2018.
(ref: avherald.com)

Surveyed African Airports

- Ghana
- Nigeria
- Senegal
- Liberia
- Kenya
- Gambia
- South Africa
- Tunisia
- Morocco



- Survey revealed:
 - Aircraft movements range between 12 to 600 per day
 - Most airports have single runway operations with a few using two runways.
 - 60% of Airports that responded to the survey have grooved runways that support water drainage and improves frictional characteristics of the runways.

Survey Outcome

All airports surveyed

- have a runway inspection plan
- have a runway maintenance programme
- record and report runway surface conditions

About 20% of respondents have not established

- Friction Testing Programme
- Rubber Removal Programmes



Survey Outcome Main contaminants identified are

- Water
- Mud
- Sand
- Rubber



Why is the GRF important for airports?

Expected benefits of the GRF

- Reporting of Runway surface condition in a standardized manner
- Establish a common language between all actors in the system: aerodrome operators, aircraft operators, pilots, ANSPs (ATCOs), MET, aircraft manufacturers, etc.
- Allow pilots to accurately determine aeroplane take-off and landing performance

The airport operator's role

A critical role....to assess and report in a timely fashion

Airport Assess
the runway
condition and
report using
RCR

ATS/AIS
Convey
information from
RCR to Aircraft
operators

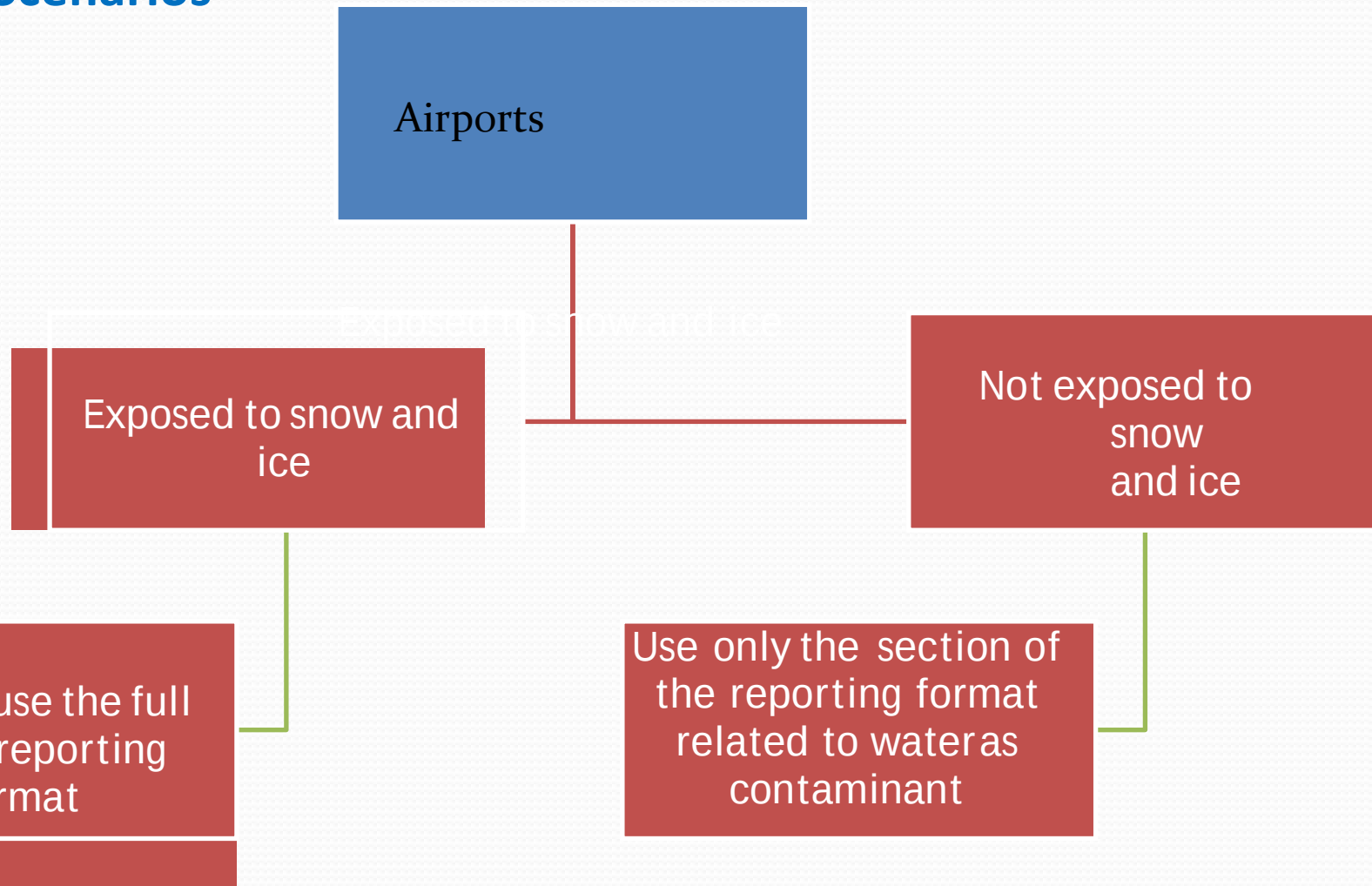
Pilots
Use information
with aircraft
performance
data to
determine if
landing or take-
off is safe

The airport operator's role

- Airports should :
 - Accurately assess runway surface conditions using codes from the Runway Condition Assessment Matrix (**RCAM**);
 - Report information in a timely manner to ATS/ATC through the Runway Condition Report (**RCR**)

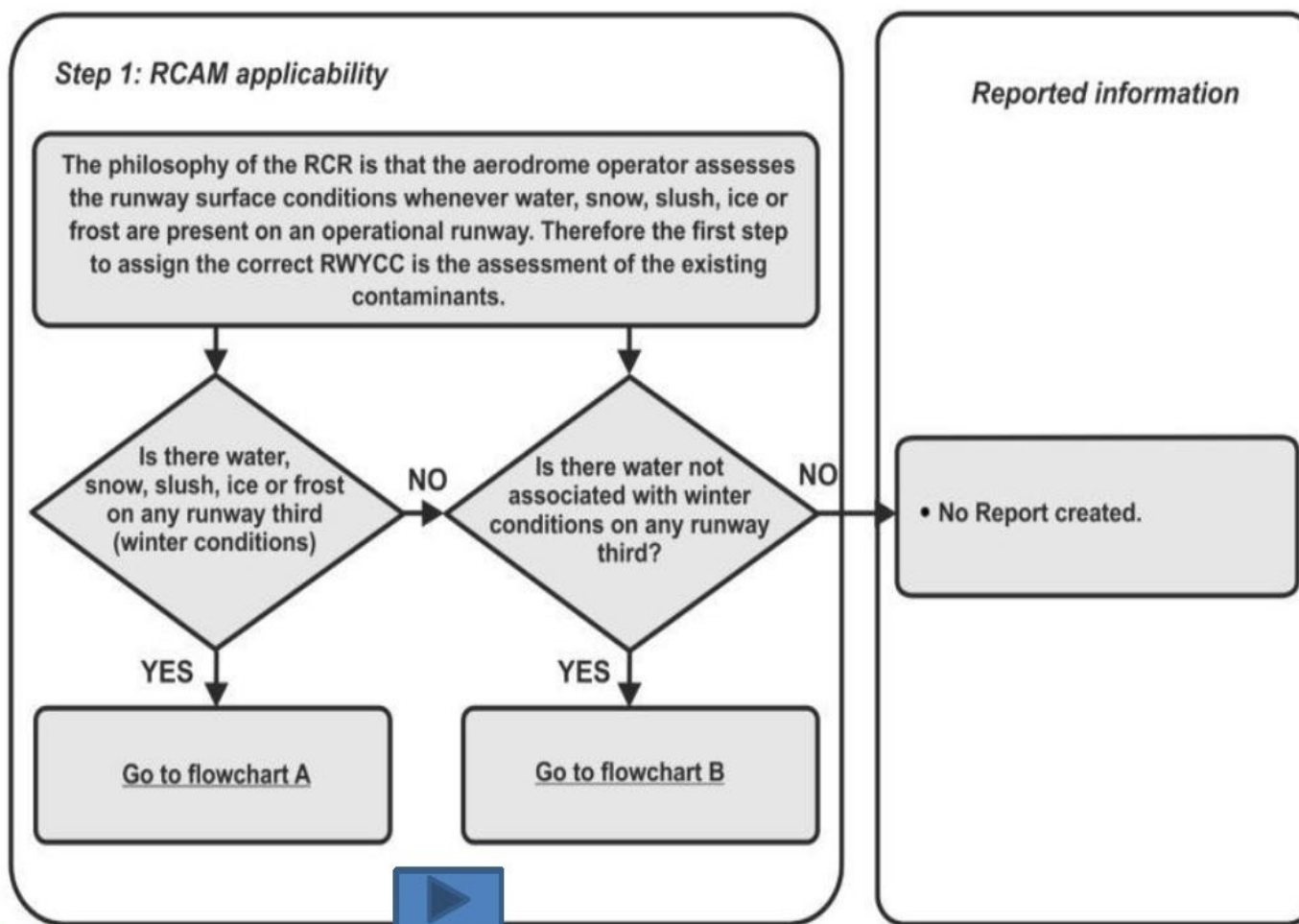
The airport operator's role

Two Scenarios



The airport operator's role

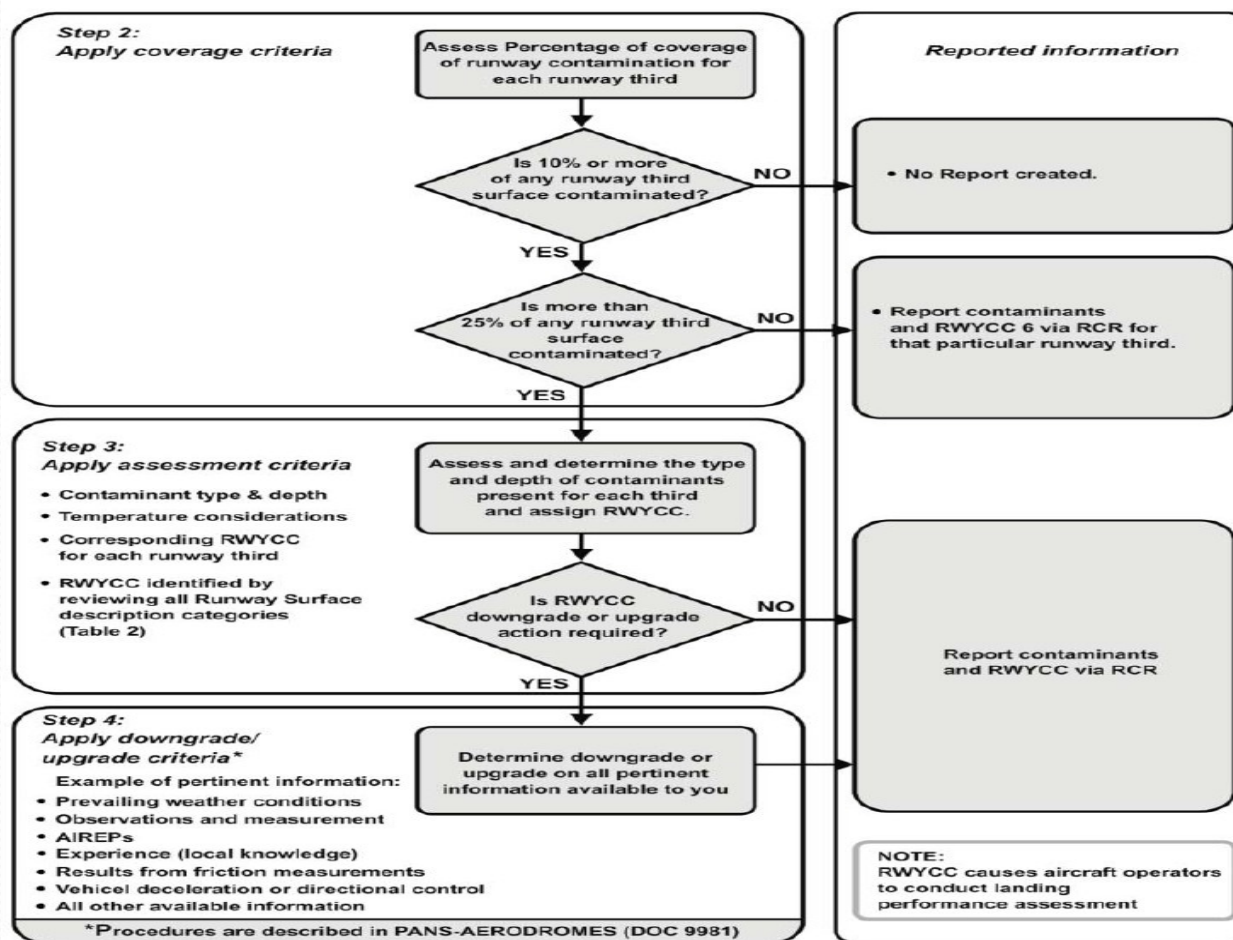
When to report



The airport operator's role When to report

Exposed to snow and ice

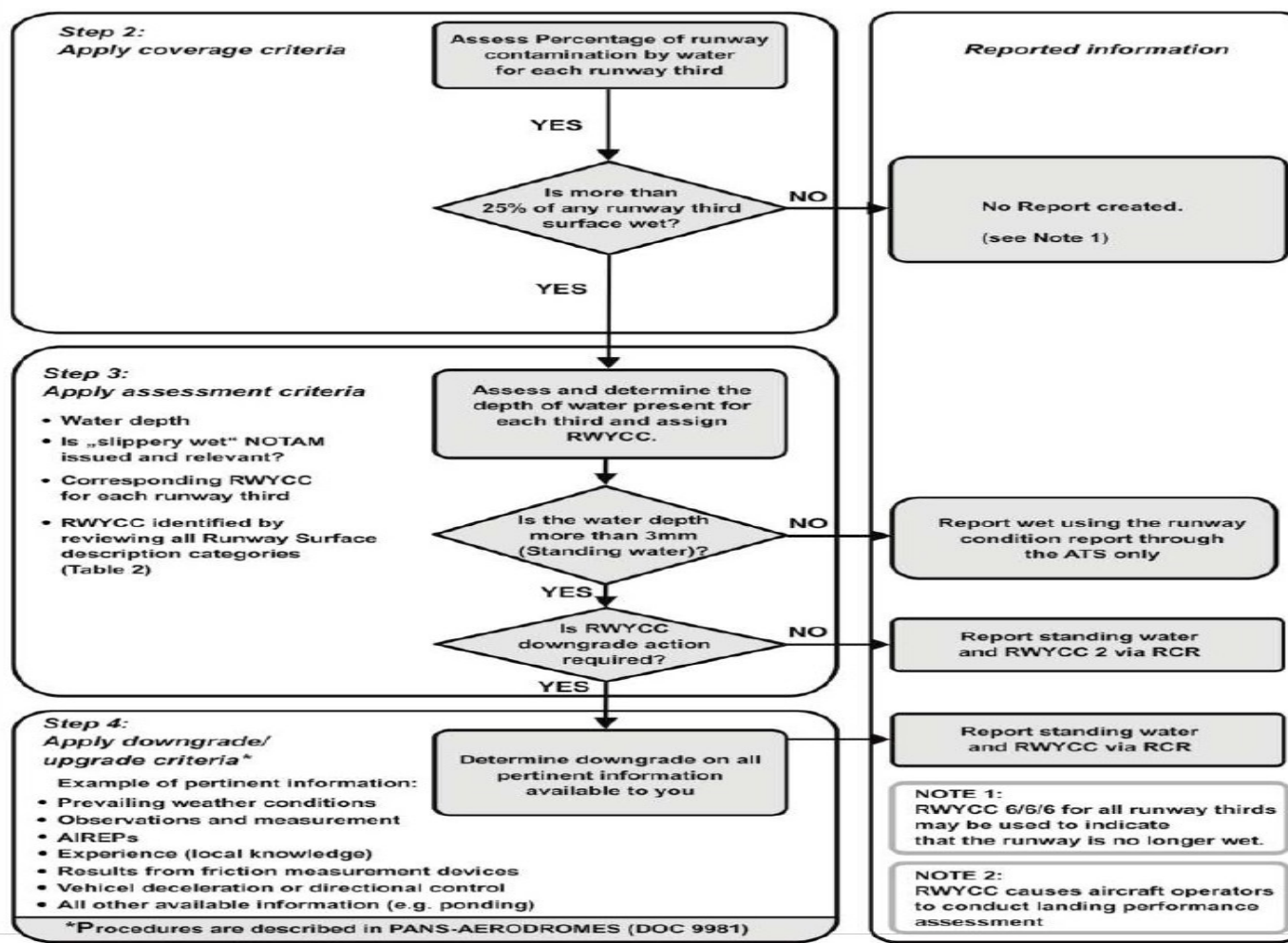
Flowchart A



The airport operator's role When to report

Not exposed to snow

Flowchart B



Benefits of implementing the GRF

- The GRF will provide objective judgments of runway surface conditions based on a universally accepted format.
- Outcomes of assessments are directly related to the contaminant type and depth categories.
- All stakeholders contribute to determining whether the runway is safe or otherwise.
- Runway Assessments are based solely on personnel interpretation and no standard charts for reference.
- Communication of runway surface condition using existing formats is difficult to interpret for both ATC and Pilots
- Harmonize assessment and reporting of runway surface conditions (using a Runway Condition Code, RWYCC);
- Factor the flight crew assessment of take-off and landing performance when determining the serviceability or otherwise of the runway

Impact on African Airports

Change in Inspection/Reporting Format

- Change Management issues to be addressed
- Awareness Creation amongst airport operators
- Training of operational personnel
- Pilot implementation of the GRF



Impact on African Airports

Most African airports are not aware of the GRF implementation

Scope of the RCAM is focused on Snow

African airports do not associate much with the content of the matrix.

Other contaminants such as mud, sand should be considered.



Impact on African Airports

Communication Challenges
Establishing Feedback mechanisms
between Pilots, ATC and Airport
Operator in determining the
appropriate RWYCC

Collaboration between regulatory
bodies and the airport operators in
the implementation of the GRF.

Development of guidance materials in
support of the implementation of the
GRF



Implementation challenges

The RCR should contains all the necessary information for the determination of the relevant runway condition for the performance assessment of the flight crew

Aerodrome personnel should understand the operational use of RWYCC by the flight to assess and report it correctly

Training is essential :

How to assess?

How to report ?

ACI's Role

Our role is to ***Help airport operators to implement the new system.***

Major ACI initiatives:

- Online ICAO/ACI course – already available-3 hours duration
- ICAO/ACI joint GRF symposium –held in March 2019 ,Montreal
- Organization of joint ICAO/ACI Regional Seminars

THE END

THANK YOU

ANY QUESTIONS?

The
voice of the
world's
airports