

Overview of Airport Operator's Experience from a Regional Perspective

ICAO APAC Regional Webinar on
GRF

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Presentation Outline

- Implementation Challenges
- Safety Hazards
- Mitigation Measures and Practical Solutions
- Conclusion



ACI APAC Represents 600 Airports

- Worldwide: approx. 2000 airports in 185 countries
- Asia-Pacific: > 130 members, 600 airports





Regional Operational Safety Committee





Responsibilities of the Aerodrome Operator

- Assess and collect data on each runway third and use RCAM.
- **Annex 14**
 - 2.9.4 personnel assessing and reporting runway surface conditions shall be trained and competent to perform their duties
 - 10.3.1 Contaminants shall be removed from the surface of the runway in use as rapidly and completely as possible to minimize accumulation
 - Attachment A-6.7: personnel should be trained



Key Challenges So Far

- Awareness & Acceptance among **stakeholders**.
- Accurate measurement of **water** and **snow depths**.
- Determine **1/3 coverage** of runway during
 - poor visibility.
 - isolated rain & wet patches.
- **Busy runway**
- Conversion of RWCC to RCR and **live transmission to ATC**
- Inclusion of RCR to **D-ATIS*** and limited space in DATIS text

*Data link-automatic terminal information service



Even with Sensors Human Intervention Still Needed





Solutions

- Task force for stakeholder engagement
- Training (ICAO, ACI)
- Frangible poles with yellow reflective tape placed on both sides of Rwy to indicate 1/3rd of runway
- Beginning 2 foot of nearest runway centre line strip to 1/3rd will be painted with retroreflective paint.
- Format and procedure for reporting RCR finalized in coordination with ATC.
- Change management
- Regulator involvement and approval
- Trials before implementation date



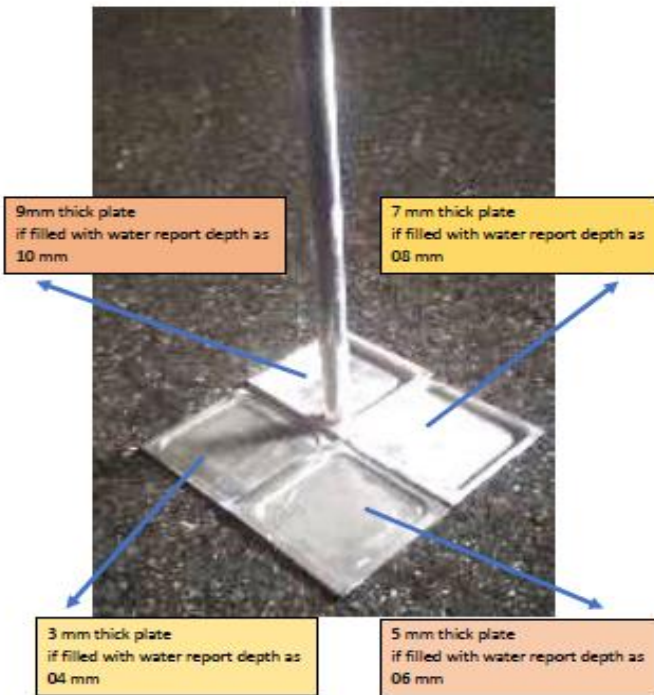
Frangible Pole Indicating 1/3 of RWY Length





Practical Tools to Measure Water Depth

Image of depth measuring tool





Safety Hazards Arising from GRF and Mitigations

Hazards	Risks	Mitigation
Implementation of new procedures leading to human errors	<ul style="list-style-type: none"> • Confusion to Runway Inspectors / ATC Controllers / Pilots • Delay in Operation 	<ul style="list-style-type: none"> • Training & Awareness • Continuous Monitoring
Difficulty in identifying 1/3 rd of runway or accurate water depth	<ul style="list-style-type: none"> • Inaccurate reports • Additional workload 	<ul style="list-style-type: none"> • Physical Indications of 1/3rd • Indigenous equipment for water depth measurement. • Training.
Additional tools carried by Follow me vehicles for data collection	<ul style="list-style-type: none"> • FOD • Additional workload 	<ul style="list-style-type: none"> • Tool control procedures. • Inspection by two vehicles to have cross check. • Inventory check after each inspection. • Training.
Markers at the runway strip	<ul style="list-style-type: none"> • Distraction to pilots • Obstacles during veer off 	<ul style="list-style-type: none"> • PVC pipes without strong base to ensure frangibility. • Low Height
Delay in reporting RCR to ATC and further to flights	<ul style="list-style-type: none"> • Non-availability of accurate RCR 	<ul style="list-style-type: none"> • Procedures for easy conversion of RWCC to RCR & reporting to ATC. • Training & Trials.



Conclusion

- GRF has so far been successfully implemented in region
- Stakeholder engagement and buy-in important
- Challenges remain and sharing of ideas key to overcoming these
 - International seminars such as this useful