Scope of the Symposium
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It is my privilege to outline for you the scope of this two-day Symposium on Runway Surface Conditions Assessment and Reporting. The scope can be divided into four categories; namely:
(See slide 1)

1. Illustrate forthcoming evolutions of the regulatory framework
2. Share feedbacks
3. Present state of knowledge
4. Research and innovative works

I wish to take this opportunity to highlight that the existence of the new *Runway Condition Report* comes as a result of teamwork within various fields by numerous individuals who have taken part in the ICAO Friction Task Force since its commence in 2008. Too many to list by name here however without their dedication and voluntary effort, very often on their free time, this Symposium would not have been arranged. Some of them are speakers at this Symposium.
(See slide 2)

If you ask why there was a need for a new *Runway Condition Report,* you will find the answer in the task assigned to the ICAO Friction Task Force and expressed through a problem statement from the ICAO Air Navigation Commission from which I quote the core:

> ….shortfalls in the accuracy and timeliness of assessment and reporting methods …..

(See slide 3)

If the key improvements in new Runway Condition report should be expressed in two statements it would be:

1. Single standardized reporting format
2. Structured information according to pilots need.

(See slide 4)

The Symposium focuses on the new and comprehensive reporting format developed by ICAO. Comprehensive since it addresses the complete chain of information from data is gathered at the actual runway and its environment; its transition into information; the dissemination of this information, and finally its operational use by the flight crew.
(See slide 5)

However, as comprehensive it might be it is characterized by simplicity.
(See slide 6)

A well-known saying is that S*implicity is the ultimate sophistication.* Some dedicate this to Leonardo Da Vinci but there is uncertainty attached to this.
(See slide 7)

However what is certain is that Leonardo Da Vinci came with a statement on the subject of friction about year 1500.
(See slide 8)

For us it is the "lighten of friction" in processes that take place in the interface between the aeroplane tyres and the runway surface that is a concern and need to be understood by the flight crew. Since the flight crew and pilot–in-command are far removed from the actual runway they shall land upon they need help from people on the ground. One could say that the people on the ground are the *eyes of the flight crew.* Eyes in the context that they make observations of the surface friction characteristics which they convey to the flight crew in the standardised format. In this process the personnel, trained to perform their duties, assign a Runway Condition Code.
(See slide 9)

Illustrate forthcoming evolutions of the regulatory framework

What is new?

1. The introduction of a *Runway Condition Code* (RWYCC), which relates to aeroplane performance.
2. Runway Condition Description (Definitions).
3. Assigning a RWYCC to the term "slippery when wet".
4. Introduction of a *Runway Condition Assessment Matrix* (RCAM), which together with written procedures guides the trained personnel on the ground to assess, and report the information provided in the information string.
5. AIREP – Procedures for Pilot reported braking action.
6. Information string with an aeroplane performance section and a situational awareness section.

(See slide 10)

This can be visualized like this. Please pay attention to the "written procedures" in the slide. These refer to procedures laid down in the PANS documents.
(See slide 11)

An example of the information string with its two sections is shown in the slide. Please note the dividing into the two sections

1. Aeroplane performance calculation section
2. Situational awareness section

(See slide 12)

It should be pointed out that at the time of this Symposium supporting guidance material are still under development and are scheduled to be developed within this calendar year. In this context it should be noted that EASA has established a rule making task *Review of aeroplane performance requirements for CAT operations.* From the Terms of Reference it follows under interface issues: *Moreover, the work of the ICAO Friction Task Force (FTF) should also be taken into consideration to the largest possible extent.* Members from the ICAO Friction Task Force participate in this EASA Rule Making Task. The new guidance material under development by the Friction Task force, namely the *ICAO Aeroplane performance manual* serve as a reference document.

The ICAO Circular 329 *assessment, Measurement and Reporting of Runway Surface Conditions* Published in 2012 is under revision to reflect the new *Runway Condition report.* It can thus be seen that the ICAO guidance material are in the shaping paralell to communicating the new reporting format to the States in July this year.

Guidance material can also be part of the PANS documents as *Attachments.*

Share feedbacks

The Symposium will share feedbacks *on the way to implement the runway condition report concept.* This feedback will most likely have an impact on the guidance material under development and acertain that the guidance material will develop in such a way that it will meet the users need and expectations as far as possible.

Present state of knowledge

There is another important consideration and that is the present state of knowledge. ICAO has downgraded the reliance upon one measuring method alone, namely the use of friction measuring devices. It became clear that since its introduction in late 1950's too much reliance has been placed upon the measured values. This has been the experience also within other modes of transportation. Within Europe this has been addressed by industry and road administrations through various research projects and we will learn more about that at this Symposium. The basic problem is that a fixed reference cannot be established for friction measuring devices. This has the implication that one cannot use the term accuracy, but must use the term uncertainty when addressing the quality of a measurement. ICAO addresses this by Standards and recommended practices outlining the monitoring of the trend of degradation of the surface friction characteristics, furthermore that a decision should not be based upon one measuring method alone. In short, all available information should be taken into consideration. This opens up for more assessment and measurement techniques. Another way to express this is that we must manage and reduce uncertainty as far as practicable. We will learn more about various aspects of this through the research and innovative works presented during the Symposium. This includes how we best can control the uncertainties of friction measurements.

Research and innovative works

The Symposium will also be concerned with the importance of the analytical quality of results, a topic of increasing awareness and investigation. Uncertainty of measurements, traceability and metrology of measurement processes need to be considered in the context of global aviation. Exchange of information needs to be trustworthy, recognising that reliable international measurement standards often underlie legal and economic decisions. The ICAO *Runway Condition Report* is particularly suited to serve as reference method because the principles it is based upon transcend international boundaries. At regional level and State level, based upon climatic exposure, various measurement methods may and will be applied supporting the assessment process leading up to the information contained in the *Runway Condition Report*.

Timeliness is fully achieved when the entire aeronautical data chain from the point of origin to the point of use are able to identify the operational significant information and make this information available to the user in real time with its integrity intact. Modern technology make this possible in automated systems and this is achieved by some aerodromes. However the majority of aerodromes do not provide such systems.

On this occasion I should like to advice on the importance of training. As mentioned earlier, the trained personnel on the ground are the eyes for the flight crew. Assessment made by ground personnel have a direct impact on the information used by the flight crew. Training applies to all personnel involved in the information chain from data gathering, assessment, dissemination, phraseology and operational use. They must all be trained to perform their duties; this also includes operating the various tools made available for them. There is also need for training at regional and State level related to the implementation of the *Runway Condition Report.*

We will have the opportunity to listen to experts at this Symposium on the various matters. I am confident that the discussions held during the Symposium will lead to important contributions to the work ahead of us.

The more we learn about performance the more we understand about safety. And safe operation of the aircraft is what it's all about.
(See slide 13)

In conclusion, I should like to wish you every success in taking part in this Symposium. Co-operation across the various stakeholders – that what makes this work so valuable.

Welcome to the symposium!
(See slide 14)