

**Opening of the Symposium**  
**Richard Thummel**  
**Deputy Head of the French Oversight Authority (DSAC)**

I welcome you warmly on behalf of DGAC for this Symposium on the *Assessment and Reporting of Runway Surface Conditions*.

This Symposium follows the recent adoption by the *Air Navigation Commission* (ANC) and *ICAO Council* of multiple amendments of *Standards and Recommended Practices* (SARPs) and *Procedures for Air Navigation Services* (PANS) relating to fundamental improvements in assessing and reporting runway surface conditions. With a proposed applicability for 2020, these supranational amendments rely on the principle of assessing and reporting the runway surface characteristics through a worldwide format (the *Runway Condition Report* RCR). Based on a globally-recognized terminology of contaminants, the RCR includes a description of the contaminants (type, depth and coverage) and a code (*Runway Condition Code* RWYCC) which is more consistent with the effective braking performances of the aircraft.

The main objective of the Symposium is to launch the implementation phase of the RCR so that the involved stakeholders can be ready in 2020. Some 25 keynotes are scheduled to illustrate forthcoming evolutions of the regulatory framework, to share feedback about the implementation of these modifications, to present state-of-knowledge and practices, and research/innovation works.

These supranational modifications impact many ICAO Annexes (3, 6, 8, 14 and 15) and PANS (Aerodromes and Air Traffic Management). The large spectrum of impacted documents illustrates the importance of the issue. This is also confirmed by the fact that most of stakeholders within the aviation sector are involved. They are all represented here today:

- The *Airport Operators* who assess the runway surface conditions;
- The *Aeronautical Information/Air Traffic Services* who diffuse the information to the flight crews through various means of communication;
- The end users, I mean the *Pilots*, who are at the center of the system since they utilize the information in conjunction with the performance data provided by the aircraft manufacturers to determine if landing or take-off operations can be conducted safely;
- The *Aircraft Manufacturers* who provide the key documentation for the safe operation of the aeroplane;
- And various suppliers of measuring devices like sensors.

That is why the Symposium has an international dimension. You are more than 150 delegates and many nationalities are represented.

In particular, I would like to sincerely thank our FAA colleagues who came across the Atlantic to participate in the Symposium and share their experience. Indeed, the US FAA-initiated TALPA-ARC (*Take-off and Landing Performance Assessment – Aviation Rulemaking Committee*) approach was chosen as a basis for the ICAO RCR, since the

concept initially developed by the FAA had already established a common, performance-oriented language between airports, aircraft manufacturers and operators.

I thank also our colleagues from Japan who will present results of their national TALPA trial.

It is clear that ineffective braking is often related to the presence of contaminants or water on the runway. There is no doubt that poor reports of runway surface characteristics have already contributed to many safety events. Thus, the origin of the concept of RCR stems from a real operational need to improve safety. The RCR enables to eliminate most shortfalls in accuracy and timeliness of current procedures, which are not always perfectly consistent across States and airport operators and even sometimes, not representative of stopping performances of aircraft.

ICAO launched the first works to resolve this issue ten years ago with the setting-up of a special working group called the *Friction Task Force* (FTF) with Armann Norheim as rapporteur. The job consisted in coordinating the stakeholders' points of view and collecting various documentation, state-of-the-art, state-of-practices, etc., in order to identify the best way to assess and to report runway surface conditions according to a globally-harmonized and performance-based approach. In 2015, the preparation of the amendments and the review of the comments of the various States in response to State Letter 15/30 was a huge task. We sincerely thank Armann Norheim for the job he did with the whole FTF teamwork. We don't forget also the complex exercise of coordination across the ICAO Annexes which has been carried out by the ICAO Secretariat. And logically we have called Armann Norheim to chair the Symposium.

The thorough job done so far must be an inspiration for the remaining work ahead of us. The approval of the concept is a first step which must lead now to the implementation stage. I am confident that this Symposium will only be the first event of a longer series which will undoubtedly facilitate orderly and timely worldwide application.

Regarding the next steps, I would particularly like to mention that:

- At the ICAO level, updating and even developing guidance materials will be necessary (action already underway with for instance the updating of the Circular 329);
- At the Regional/State level, the implementation of the RCR will require a series of regulatory amendments and the deployment of a robust oversight process, as well as the writing of recommendations;
- It cannot be stated strongly enough how important training will be and that harmonised training will need to be applied along the whole information chain to ensure that information is gathered, assessed, produced, disseminated and used in a consistent manner.
- All aircraft manufacturers and aircraft operators will have to update documentation and programming of on board software.
- On the whole, there is an unquestionable necessity of coordination of the involved parties with a final goal of building up a cohesive chain that will be in capacity of collectively improving safety.

The scope of the Symposium is very broad and rich. I hope that you will enjoy the presentations. I wish you excellent debates and fruitful discussions you will pursue over breaks and lunch time.

**Presentation of the Agenda**  
**Mickaël Thiery**  
**Deputy Head of the Airfield Infrastructures Department**  
**STAC**

The first session about the TALPA trials has a real international dimension. Many States will present their views about the applicability of the *Runway Condition Matrix* (RCAM), i.e. the tool recommended by the PANS-Aerodromes for the assessment of the *Runway Condition Code*. The TALPA experimentations give the opportunity to appraise the consistency between the code assessed by the airport operator and the pilot reports, as well as the relevance of procedures of downgrading/upgrading codes associated to the RCAM.

In the afternoon, the second session about procedures and systems of assessment will illustrate existing or under development tools which could constitute elements of a set of procedures put together by airports to assess/adjust the *Runway Condition Code*. The PANS-Aerodromes provides a high-level structure of assessment applicable to most climatic conditions and sizes of airport (a runway inspector determines a code by means of basic tools like temperature readings, a graduated rule, etc.). But existing State-approved measuring devices/systems, and all other methods of analysis of observations, can remain to assist the airport operator in the evaluation of the code, on the condition that the fundamental principle of consistency between the *Runway Condition Code* and aircraft performances is respected.

Tomorrow morning, during the round table, the Stakeholders will present the essential steps to be followed in order to implement the ICAO amendments and to be in capacity of providing by 2020 reliable and globally-harmonized information to the end users, i.e. the pilots.

The last session will be dedicated to the maintenance issue and its links with the operational needs of assessment and reporting of surface conditions where the runway is slippery when it is wet (due to rubber deposit for instance). A key improvement of the recent ICAO amendments relies on the introduction of that new state called *slippery wet* related to intrinsic low standard friction properties of the pavement and the presence of water. A code has been assigned to this state in accordance to aircraft performances.