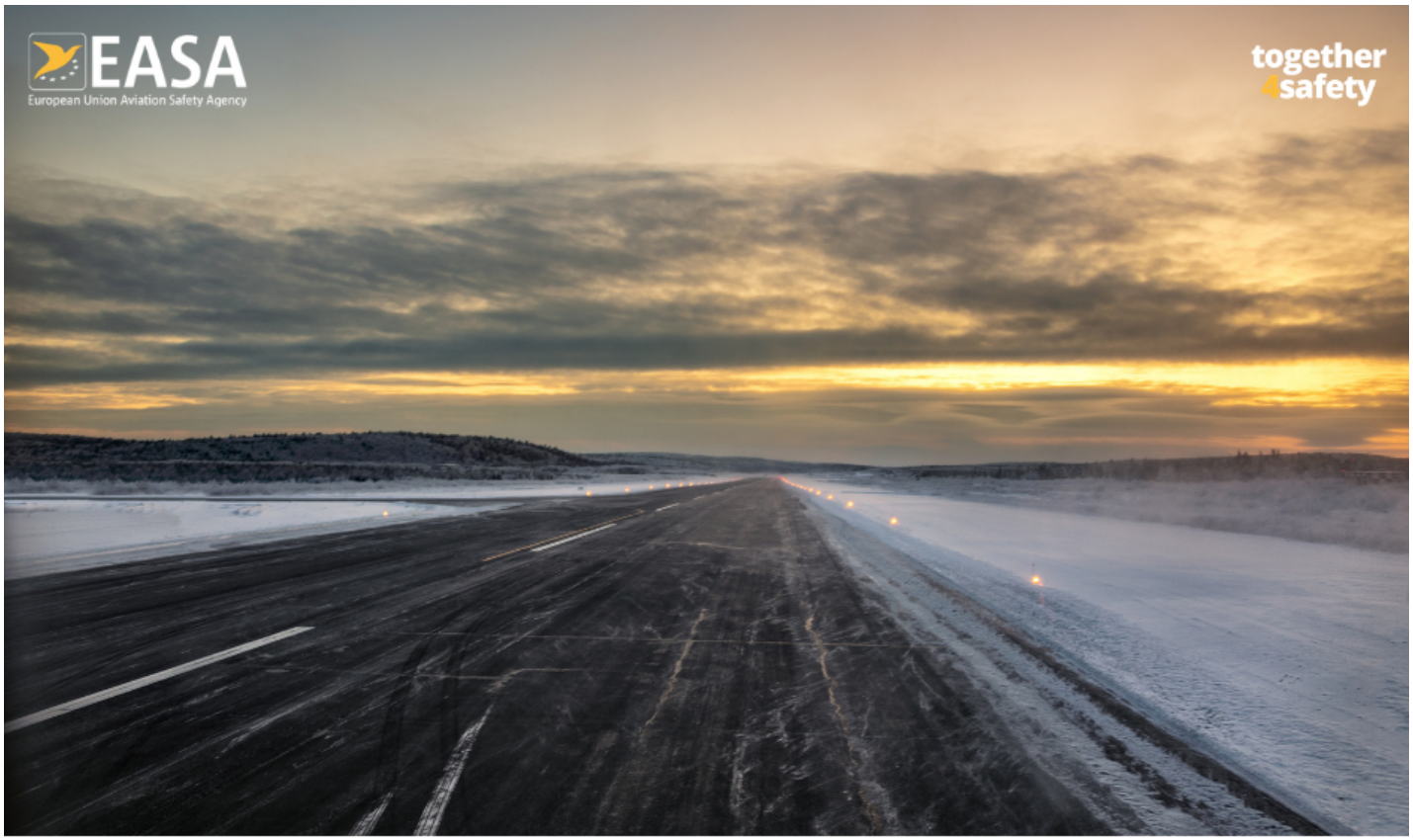
Global Reporting Format for Runway Surface Condition Monitoring

Event Q&A

Introducing these questions and answers.....

These Event Q&A are about the subject of "Global Reporting Format for Runway Surface Condition Monitoring" from the EASA Together4Safety Webinar that was held on 10th March 2021. Continue to follow the discussion on our Conversation Aviation LinkedIn Page or the EASA Air Ops Community



Is the EASA IR for the Global Reporting Format (GRF) Document 2020/2148?

Regulation (EU) 2020/2148 contains the implementing rules for the GRF applicable to the aerodrome operators.

There is a discrepancy in the order of information to be disseminated, in "Appendix 1 to AMC1 SERA.14001 General, point 1.1.11(from AUG12)" and "AMC2 ADR.OPS.A.065(a) Reporting of the runway surface condition ". RWYCC, Date/time, RWY etc are in different order. For safety and clarity these should be synced. The problem is that ATC have to rearrange the info before passing it on. How should airports and ATCs handle this?

The order of reporting is the same as in PANS-ATM. Indeed there is a reverse order, however in order to achieve global harmonization, this change may need to be coordinated globally by ICAO.

Here is a non-EASA question, if I am allowed: Out of interest, will the FAA also join the GRF effective August 12th, 2021?

FAA is applying the GRF as of October 2016.

Is the 15% a regulatory statement?

Yes, it is the minimum margin specified in CAT.OP.MPA.303.

How many manufacturers have updated their performance manual to be compliant with GRF? What if you are a EU operator with an FAA manufacturer since we have different implementing dates? Are they going to be compliant by August?

Many, but not all manufacturers have published information. Operators should request information when not yet available. A fall-back solution described in the AMC/GM using factors to be applied to the certified landing distance for dry runway has been presented.

Is GRF applied to military aircraft using civil aerodromes?

Under the EU regulatory framework, aircraft operated by the military are out of the scope. However, the Aerodrome Regulation applies to aerodromes that are open to public use (civil aerodrome). In this case, the aerodrome will apply Regulation (EU) 2020/2148, which includes the GRF.

From the Guidance p.12 Note 3, DRY condition shall be reported also when coverage is LESS THAN 25% for water not associated with winter conditions in accordance with Flowchart B. Is that correct?

According to ADR.OPS.B.037 (a) a RWYCC is assigned based on the type and depth of the contaminant and the temperature.Contaminant is reported using the terms specified in ADR.OPS.A.065. For coverage less than 25% see GM1 ADR.OPS.B.037(b) (a) (1) and (2). Reported: RWYCC 6, WET, 25 when the percentage is 10% or above or equal to 25%.

Can you comment on Note 1 from the Guidance doc p.13 where is stated that NR shall be inserted if condition description in Item G is not reported, but that is not in correlation with Item D, if we did not select contaminant we cannot select RWYCC!

EASA will correct this at first opportunity.

Is there any dissuasive policy to deal with other areas in the world that would not be compliant with the GRF?

The European Regulations apply to European ATM, Air Operators and Aerodromes. ICAO has a process called Universal Safety Oversight Audit Programme (USOAP) to assess States compliance with SARPS.

The reporting of the runway surface conditions is developed in AMC1 ADR.OPS.A.065(a) which precises how to report the RCR depending on the runway conditions. Yet, the requirements related to means of dissemination of slippery wet runways seem to be missing. Should it be disseminated by SNOWTAM+ frequency considering it represents critical conditions that need to be reported by all available means of transmission, or could it be considered that the dissemination on the frequency is sufficient (WET runway)?

When a runway is 'SLIPPERY WET' following regular assessments of runway surface under simulated conditions, then a NOTAM is required, in accordance with point (e) of ADR.OPS.A.065. In the case where such a NOTAM is in effect and the runway becomes WET, then this part of the runway should always be reported as 'SLIPPERY WET' either through the SNOWTAM or via ATS.

EASA regulated countries will start to issue SNOWTAM in GRF format valid for 8h, rest of world would be still issuing SNOWTAMs in current format (pre-GRF), which are 24h valid. How we should work with this time validity discrepancy if we could set only one value in our AIM/AIS system? Shall we set 8h which means, we would reduce 24h validity worldwide to 8h as well?

From 12 AUG 2021, EAD will apply 8h validity regardless new/old format. This information was communicated to all EAD clients in Dec 2020.

How long will SNOWTAMs be valid (EASA/EAD vs. rest of World?) in the period from 12th August till 4th November? 8 hours or 24 hours?

8 hours

Do you know when the new CS amendment that will officially publish the new CS25.1591 & CS25.1592 and their associated AMCs will be issued? Is the target date of Q1 2021 still valid ? This material could be useful for us in the frame of the CPR process or our ATR42-600S project.

The amendment to CS-25 is in the final stages of internal validation and will be published in the coming weeks

Do you have an idea whether the ICAO/IATA/CANSO courses/introductions for ANSPs are still in development and when we could expect them? If not, does EASA intend to publish something similar (next to AMC/GM)?

EASA is aware that IATA and CANSO are developing training for Air Traffic Controllers and Pilots, however we are not in a position to provide information on their status. EASA will create a dedicated page for the GRF on the Air Ops Community Site to provide regular updates.

What to do with training of Aerodrome services personal? The training organizations do not provide training due to Covid-19.

EASA does not prescribe how the training will be conducted. Theoretical training could be delivered through virtual classrooms and practical training at a later stage when situation permits.

Flight crew training requirement in AMC1 CAT.OP.MPA.303 and 311 required training by instructor, not only self study. See appendix 5 to Opinion 2/2019. Is this still valid? Because it will be very difficult to train all pilots in time.

The AMC on training has been revised and the training syllabus will be recommended at GM level. No specific mention of classroom training is made.

Concerning the upgrade of runway conditions. For certain conditions an upgrade is not allowed. For my clarification is the following interpretation correct? An upgrade can be made but only if there is a full runway condition assessment made following the process described. All other possible reasons for an upgrade, AIREP etc is not allowed. Meaning that if you need and suspect that there can be made an upgrade due to improved rwy conditions for whatever reason, the airport operator will have to go through a full assessment?

Upgrade of the RWYCC is done in accordance with AMC1 ADR.OPS.B.037(a);(b). AIREP cannot be used to upgrade RWYCC, but it may trigger a re-assessment. However all available means should be used.

In The Netherlands only controlled AD can issue SNOWTAMS. Uncontrolled AD must use GRF as from August 21, but can't issue a SNOWTAM. Some of those AD are VFR only and are not allowed to provide RWY contamination by radio. Does EASA provide an exemption for those AD's not to use GRF?

Neither ICAO nor EASA foresee usage of SNOWTAM for ADs that do not have 4 letters ICAO code (ICAO Doc 7910).

Has any thought been given to a "SNOWTAM cancel" message for improving situations? The fixed 8H validity means that the SNOWTAM lifecycle can be as follows: a SNOWTAM is published, then conditions improve, a "good conditions" SNOWTAM is then required to update the information in circulation (even though the good conditions wouldn't qualify per se for a SNOWTAM) - and then this "good conditions SNOWTAM" will remain in circulation for 8 hours until it finally expires.

Neither ICAO nor EASA foresee SNOWTAM cancel message. New SNOWTAM shall be issued as soon as conditions are changed according to regulations (both ICAO and EU).

In The Netherlands only controlled AD can issue SNOWTAMS. Uncontrolled AD must use GRF as from August 21, but can't issue a SNOWTAM. Some of those AD are VFR only and are not allowed to provide RWY contamination by radio. Does EASA provide an exemption for those AD's not to use GRF?

Thales is working on solutions that may be deployed from individual up to airlines levels. In that way, we will be able to separate individual usage from cockpit crew usage and address all levels of need. Furthermore Thales is also working on the robustness of our solutions to human inter variability to complement our efficiency on intravariability. Part of investigations should always include additional information requested to the crew members involved to validate models – this will allow to avoid generalizations.

Clarification about validity of SNOWTAM during 12Aug - 4Nov 2021. EASA regulated countries will start to issue SNOWTAM in GRF format valid for 8h, rest of world would be still issuing SNOWTAMs in current format (pre-GRF), which are 24h valid. How we should work with this time validity discrepancy if we could set only one value in our AIM/AIS system? Shall we set 8h which means, we would reduce 24h validity worldwide to 8h as well?

From 12 AUG 2021, EAD will apply 8h validity regardless new/old format. This information was communicated to all EAD clients in Dec 2020.

I work as an ATCO at an airport in one of the Nordic countries. Our airport is covered in ice and compacted snow about 6 months every year, and our aircraft operate on the runway on top of the ice. Our airport ramp is excellent at handling the ice, and is able to get friction values (u) that often measure well above 70. In the new RCR, ”ice” would end up with a ”1”, and even if we improve this by proving historic data to a ”3”, it won’t get close to what we would perceive should be a ”6”. How can we address?

EASA has introduced ADR.OPS.B.036 'Operations on specially prepared winter runways' to address this issue.

Will aircraft tyre condition affect friction measurement?(when aircraft software will perform measurement)

Condition matters for dry runway, but for aircraft tires this is not so much the case on wet and contaminated runway, as long as they are within the allowable condition.

How about grooved runaways?

The industry has become more cautious about attributing systematic benefit to wet grooved or PFC runways. Manufacturers may make specific data available upon request of an aeroplane operator. Operations must be approved by the national authorities and are subject to operational conditions and monitoring of the surface characteristics over time. The GRF reports wet for such a runway.

It is my understanding that an LDTA calculation has to be performed before every landing. It can be achieved by the PIC determining that the calculation performed previously is still valid for the RWY to be used.

It is confirmed that the PIC has to make an assessment before each landing. This may or may not involve an actual calculation. The statement was referring to the calculation.

Will should we deal with a sanded "white runway" i.e. a sand on compacted snow?

Sand treatment may improve or degrade the surface friction depending on the way it is applied. That is why no blanket credit is given to sanded winter runways. Instead, the airport must assess the success of the treatment and may then upgrade the RWYCC within the rules defined in the CS-ADR. The aerodrome operator may upgrade an assigned RWYCC 1 or 0 when all available means of assessing runway slipperiness, including properly operated and calibrated measuring devices, if available, have been used to support the decision. Friction measuring device values are not used to determine and report surface conditions. Joint industry and multi-national government tests have not established a reliable correlation between runway friction values and the relationship to aeroplane braking performance. However, the measured values can be used in a comparative way to support other survey information collected.

Could you repeat the answer on the reason why has been chosen for the break in depth of 3mm for dry and wet snow?

The intent was to identify a depth that allows the tires to displace the contaminant into the macrotexture of the surface. This is visible when a black track appears behind a tire rolling over it. For harmonization, it was chosen to equate this with a depth of 3mm for all winter contaminants.

Could you explain what causes damp conditions to have such low friction? Because there will be a great downgrade n the RWYCC (from 6 to 2) if we only get light rain.

Runways with well built and maintained surface will not experience such slippery conditions when just damp or wet. They will behave as expected. The full reasons why some surfaces display larger braking action penalties are not yet fully understood.

When we can expect updated SCAP and Airbus calculation module take account for new changes?

Airbus is aiming to provide the ability to take into account a RWYCC and a contaminant type and depth for take-off computation by the end of this year. Computation of LDTA type data has already been available since 2012.

How can we apply GRF in an non-snow region?

Yes, it is applicable to all locations, including when exposed only to rain. As shown, aircraft performance is sensitive to wet condition.

Why DRY runway RWYCC is not allowed to be downgraded in GRF?

The aerodrome operator should appropriately downgrade the RWYCC taking into consideration all available means of assessing runway slipperiness, including special air-reports.

Aircraft performance sheets indicate only 1 RWYCC.How shall aircraft operators take a different RWYCC per third into account in their performance calculations?I learned already from several aircraft operators that they only take the worst RWYCC into account. What is your point of view on this?

This is the conservative method. The Aeroplane Performance Manual (APM) suggests other methods, depending on the portion of runway intended or expected to be used.

Regarding runway width, from which distance from the centre line should we consider contaminants? Is it 3 metres for narrow body and 6 m for a wide body? If contaminant covers paved runway but further than 6 m, should we consider or disregard it?

The report is intended to represent the entire surface to be used. Conditions should not be significantly different if an aircraft lands with some lateral offset for example. However, when conditions vary significantly, the focus should be on the wheel track area of the aircraft expected to operate on the runway.

How is reporting the condition of the stopway managed, if this is not included as part of the runway thirds?

That is correct, however in line with CS-ADR the airport should not allow the stopway to have significantly different surface characteristics. Should this happen, a specific information should be provided in the free text comments.

In the Airbus FCOM, there is no credit for runway treatment. Will Airbus change the manual to take into account the Specially prepared winter runway ?

That is correct, and at this point Airbus does not intend to provide specific performance for Specially Prepared Winter Runway. The airport may report a RWYCC up to 4 in this case. Should a 4 be reported, the operator may use Compacted Snow for the take-off computation. Should a 3 be reported, the operator can use Dry Snow 10mm for the take-off computation. Both are perfect equivalences. As per AMC 25.1591, Airbus does not account for contaminant drag in the models for Dry Snow 10mm and Wet Snow 5mm.

RCAM classifies compacted snow differently for temperatures above and below -15C. The AFMs only contains 1 type of compacted snow. Boeing and Airbus give different guidance on what runway condition to use for take-off and dispatch landing calculations when the temperature is above -15C. What is the EASA position on what type of runway condition that should be selected for compacted snow depending on the temperature?

The friction coefficient associated with Compacted Snow in CS25.1591 means of compliance is the same as has been set for Good to Medium (RWYCC 4). That means for Airbus data the published information is in line with the "cold" Compacted Snow below -15C.

According to the definitions is a contaminated runway with less than 25% of e.g. melting ice on top of ice to be defined as WET and a RWYCC code 5 , which is defined as "GOOD; Braking deceleration is normal as well as directional control is normal". Does the panel really believe that this will reduce the risk of runway overruns and runway veer-offs?

It is up to the runway inspector to judge whether the patches of melting ice (RWYCC 0) are a hazard. The impact of icy patches (RWYCC 1) have only been assessed in terms of their impact on longitudinal stopping performance.

How can it be assured that every airport employee assesses the conditions in the same way? After all, assessing is one persons interpretation, measuring is hard data.

A measured data has to be assessed according to the possibilities and limitations of the tool used to produce the data. The measured data has then to be converted into information representative for a runway third. This conversion is an assessment performed by personnel trained and competent to performed their duty.

Should an aerodrome operator use this during runway resurfacing work e.g. when layers are curing?

Yes. Whenever the runway is open for traffic. On newly surfaced runways particular focus should be on the surface layer with respect to any residuals from the construction phase. Downgrading may be relevant.

What if a pilot insists on providing friction measurements? There could be a commercial pressure as well.

Some airlines have put into place means that allow their crews to determine performance and crosswind limits based on friction measurement devices. Mostly, such operations are restricted to aerodromes for which the operator has a good understanding of the practices in winter conditions, but not always. The task of correlating friction measurements with aircraft stopping capability has been elusive despite many efforts of the industry. ICAO nonetheless permits the reporting of friction measurements in the RCR if this is according to State set format and associated procedures. EASA on the other hand has prohibited the reporting of friction measurements. The RWYCC can convey all the information that is required for operations. In this context FAA SAFO 19001 Landing Performance Assessments at Time of Arrival should be taken into consideration. Quoted from SAFO 19001 Discussion: Friction measuring equipment values are no longer used to determine and report surface conditions because joint industry and multi-national government tests have not established a reliable correlation between runway friction values and the relationship to airplane braking performance.

In practice it is possible that airport staff takes a margin when assessing the runway condition due to its responsibility. For this reason they could declare a more restrictive RWYCC than necessary. Given that, could the application of a 15% margin on the braking distance by pilots make the process non operational for airlines?

Aerodromes should not apply a conservatism to the RWYCC they report versus their best assessment of the actual value. Conservatism may be useful when assessing coverage and depth, in particular against the reporting thresholds of 25% / 3mm respectively. Conservatism on the RWYCC can rapidly generate commercial and operational issues for the operator. Note also that flight crew are encouraged to gain awareness of their margins by assessing performance for possible degraded conditions.

There is still a common belief in the pilot community that any grooved runways can use dry runways conditions for performance calculation even if the runway is wet. Could anyone comment on that?

This is not correct. For rejected take-off, regulation has always specified an intermediate friction level between dry and wet for grooved or PFC runways. This is also the accepted friction for performance published for landing. So, no wet runway qualifies for "dry runway" performance.

When talking about runway thirds: are these reported in thirds from the beginning of the physical runway surface or from a (possibly displaced) threshold?

See GM2 ADR.OPS.A.065(a) - Figure 1 and 2 where runway thirds relevant to declared distances and displaced thresholds are addressed.

For drifting snow, what is preferred? Drifting snow published for whole airfield or published separately for each runway?

For each runway.

For the publishing of the friction coefficients in the item S)... If a state approves, will the form "28/33/36 SFH" in the item S) possible and sufficient?

In the GRF SNOWTAM based on the RCR, there are no field codes and measured friction should not be reported. Friction measuring device values are not used to determine and report surface conditions. Joint industry and multi-national government tests have not established a reliable correlation between runway friction values and the relationship to aeroplane braking performance

Do I understand well, that using of the item S) of the RCR will not be allowed in Europe at all?

Correct within EU/EASA regulation.

How can we report multiple contaminants on the RWYCC? i.e. we can face ice and compacted snow and the percentage depends on the contaminant position on the runway width.

See AMC 1 ADR.OPS.B.037(b) (b) If multiple contaminants are present where the total coverage is more than 25 per cent but no single contaminant covers more than 25 per cent of any runway third, the RWYCC is based upon the judgement of the runway inspector, considering what contaminant will most likely be encountered by the aeroplane and its likely effect on the aeroplane's performance. Typically, this would be the most widespread contaminant, but this is not an absolute.

So a NOTAM "Slippery Wet" cannot be replaced by real time evaluations?

Correct. A NOTAM (Slippery WET) is an outcome of identifying a substandard portion of a runway and the NOTAM is in effect as long as this substandard portion is present. SLIPPERY WET and the assigned RWYCC 3 is reported in the RCR whenever the RWY is wet when the NOTAM is in effect. A SLIPPERY WET runway can be downgraded.

As Airport operators will we be able to have information from GRF system about other airports RCR ?

For EU/EASA regulated aerodromes the RCR will typically be disseminated as SNOWTAM and stored in the EAD database. There are also examples of aerodrome operators disseminating the RCR/SNOWTAM and also making it available on internet in real time (less than half a minute).

You speak of a recommendation for pilot to use a 15% margin. Who is issuing this recommendation and is this 15% included in the flight crew manual?

It will become mandatory from 12 August, so far it is a recommendation. Whether it is basically included in the distance depends on the manufacturer. For Airbus it is not basically included in the paper data and can be configured in the EFB.

Why the reduced runway length is not part of performance section?

The reduced runway length obviously has an impact on performance computation. However, the full picture and impact on declared distances and impact on obstacles for take-off (in both directions) cannot be captured by a single value. In the RCR, the reduced runway length (i.e. the shorter LDA) is just an indicator for the pilot that he needs to refer to the appropriate NOTAM for detailed information. That is why it is in the situational awareness section.

How can an airport report asymmetric snowbanks on runway? GRF contains only "L" or "R" or "LR", where "LR" assumes L to be equal to R?

By using the "L" an "R" with different values as observed from the lowest runway designation number. This being said; runways should be cleared for any loose snow in full length and width. An asymmetric snowbank situation may be the result from a breakdown in snow clearing equipment. This item should be seldom used.

Can SLIPPERY WET runway be reported without a NOTAM?

It can, but it should not. For an aerodrome operator a SLIPPERY WET runway should not come as a surprise. The main source of information is the trend monitoring of the surface characteristics based on a complete survey. In the case of a slippery WET runway this is reflected in a NOTAM giving the necessary situational information. It is important for planning purposes for the airline to know before dispatch whether a runway will become slippery wet when it gets wet.

In terms of ATC - pilot cooperation what can the ATM side expect from non-EU airlines between the dates of EU/EASA application and ICAO application? Especially considering UK after Brexit.

The "G" in GRF stands for "Global". In principle from 5 Nov 2021, all operators and flight crew worldwide should be aware of the GRF and know the associated procedures. However, the proficiency of making pilot reports of braking action will continue to depend on exposure, experience and aircraft equipment.

How to assess the rwy third, if there are more than two materials used on the rwy, for example, concrete and asphalt?

Different runway surface materials should only have an impact on wet runway. For dry runway, the impact of different surfaces should be negligible. Furthermore, dry runway performance is seldom limiting for operations. In contaminated conditions, even with standing water, the surface material becomes irrelevant. In wet conditions, the ability of the surface to allow the water film to be drained from the contact footprint of the tire and permit direct contact between the surface material and the tire is essential. Ungrooved concrete can, in these conditions, become more slippery at lower rainfall rates than rough asphalt. Airports should then focus on the areas with worse drainage. However, it is not expected that different materials under left and right gears should create an imbalance that cannot be controlled by the pilot with normal control inputs.

Hi, in summer months when we have surface condition as 6/6/6 how will this info be distributed to pilots? Via ATIS?

The absence of a report is understood by the crew to mean that the runway is dry (6/6/6), i.e. such a report would not be provided. 6 is reported when other portions of the runway are affected by water, snow or ice, or less than 10% are covered by a contaminant; or between 10 and 25% inclusive are covered by a contaminant. See GM1 ADR.OPS.B.037(b) Assessment of runway surface condition and assignment of runway condition code.

How do runway thresholds (both ends) affect the subdivision of the runway in thirds? Are they ignored or are they part of the 3 thirds?

See GM2 ADR.OPS.A.065(a) - Figure 1 and 2 where runway thirds relevant to declared distances and displaced thresholds are addressed.

Is it possible to downgrade RWYCC for example from 5 to 4 because we have snowing ongoing, as a downgrade. Or 4 RWYCC is only reserved to compacted snow below -15 C degrees?

Any RWYCC can be downgraded to a lower value whenever observations support it. A disconnect between the reported contaminant type and depth, and the RWYCC is part of the system and a warning signal to the pilot. In the plain language remark item 'UPGRADED' or 'DOWNGRADED' is used whenever the assessed RWYCC differs from what follows directly from the runway condition assessment matrix (RCAM).

The frost is contamination from the air moisture. Normally depth is up to 1mm. But often can be much thicker. Then RWYCC could be change. But this downgrade could be done only on the base of PIREP/AIREP or observations of the aircraft performance. Why the friction measurement is not possible to use for this downgrade?

Frost is basically categorized as equivalent to wet, but it is recognized that thick accumulation of frost leads to very slippery conditions. Friction measurements cannot be used by flight crews to determine landing performance requirements, because there is no correlation between the measurements and aeroplane performance data. Nevertheless, continuous friction measuring devices may be used, together with all other available means, to support upgrade or downgrade of the RWYCC, by using friction measurements in a comparative way and not as absolute values. In this context FAA SAFO 19001 Landing Performance Assessments at Time of Arrival should be taken into consideration. Quoted from SAFO 19001 Discussion: Friction measuring equipment values are no longer used to determine and report surface conditions because joint industry and multi-national government tests have not established a reliable correlation between runway friction values and the relationship to airplane braking performance.

In some ICAO examples of SNOWTAM the depth of slush is reported 2 (mm). Is it proper the procedure to report changing conditions i.e. 03, then 06 and then 02?

See AMC1 ADR.OPS.A.065(b);(c) (e) Table 2: Depth assessment for contaminants.

Is the RCAM usable only if the percentage of contamination is bigger than 25%? I need to ensure if I understand it properly. When observed contamination is 24%, percentage is reported 25 and RWYCC is 6. RCAM is not applicable on this condition. Am I right?

RCRs should be created as soon as the coverage exceeds 10% and reported as 25%. The performance impact is considered to be negligible up to 25%. According to ADR.OPS.B.037 (a) a RWYCC is assigned based on the type and depth of the contaminant and the temperature.Contaminant is reported using the terms specified in ADR.OPS.A.065. These terms are used in the RCAM. For coverage less than 25% of water see GM1 ADR.OPS.B.037(b) (a) (1) and (2). Reported: RWYCC 6, WET, 25 when the percentage is 10% or above or equal to 25%.

What causes damp conditions to have such low friction? Because there will be a great downgrade n the RWYCC (from 6 to 2) if we only get light rain.

Runways with well built and maintained surfaced will not experience such slippery conditions when just damp or wet. They will behave as expected. The full reasons why some surfaces display larger braking action penalties are not yet fully understood.

How do you measure depth of water on RWY (for example - change of 3mm)? Is this an assessment or how do you do it?

It is an assessment making use of knowledge from maintenance activities. The status of the surface of a runway is known through maintenance activities resulting in complete surveys and trend monitoring of surface characteristics. It is thus known beforehand a rainstorm event if at certain rain fall rate there will be an oversaturation of the runway, if pond a forms and their depth and size or if there are rutting present resulting in flow of water above the threshold value. Performing a complete survey several tools can be used. The most important ones are measuring rod and straightedge. The sophistication of tools used is at the discretion of the aerodrome operator.

How are we supposed to use the RWYCC given by third whereas the performance tools (LPC for instance) takes as input a unique parameter ? We could take the smallest code but in case of very long runway, let's say 5-5-2. Using 2 for the whole runway does not make sense.

This is the conservative method. The Aeroplane Performance Manual (APM) suggests other methods, depending on the portion of runway intended or expected to be used.

Can you please give us an example of other policy/method different than the conservative one?

On landing, some operators consider the worst of the last two thirds when the first third is traversed in the flare for example. Another possibility on long runways is to disregard the last third when it is expected to be able to stop before.

After contaminants removal like snow, we expect a prevailing runway condition WET. Also if the snow coverage is less than 10% why we have to report 6 also if the runway is wet for the remaining?

If the prevailing runway condition is wet it is reported as WET.

How will the GRF implementation affect the ATC workload, is there a need for additional training and are there any specific training available for ANPS's - ATC and AIS?

The GRF does not change the working practices. The difference is the way runway surface conditions are reported and the new structure of the RCR/SNOWTAM. A training on the new way of reporting is considered necessary.

Will EASA Special Condition about shorter landing distances on eligible wet Grooved or PFC runways, or parts of it, be transferred to EASA Air Operations?

EASA CS25 basic regulation provides a method for improved takeoff performance (CS 25.109(d)) on wet runway if the surface is grooved or PFC. There is no such provision for landing. The Flight Test Harmonization Working Group has proposed a new method for determining landing distances at time of dispatch for wet runways, including PFC and grooved. This method may be introduced for future certifications. Existing performance is based on Certification Review Item, and requires national authority approval of the operations. Provisions on performance credit on wet PFC/grooved runways have been added in the air operations rules provided that relevant data are available in the AFM.

Regarding reduced RWY length: Did I understand correctly that this also warrants the publication of a NOTAM?

Yes.

Is it understood that WET equals to SLIPPERY WET when reporting the RCR?

In case of SLIPPERY WET runway has been identified by the aerodrome operator a NOTAM is issued. When this NOTAM is in effect the affected runway third(s) are assigned a RWYCC 3 whenever they are wet and they are reported as SLIPPERY WET. EASA regulation permits the ad-hoc reporting of Slippery Wet in addition to the more permanent NOTAM.

How shall we report multiple runways if one runway are closed due to maintenance like re-surfacing?

The runway will be closed by a NOTAM. A RCR is not produced for a closed runway.

The implementation date is very close. Has the impact of such a major change being evaluated in full, considering the heavy flight inactivity of the crews around the world? Most companies have a very careful approach on implementing changes to pilot that have a reduced, in some cases inexistent activity. Performance software used by pilots need to be adapted/developed to the new parameters and this is also an important change in procedures that could be considered hazardous in this difficult times?

Similar rules have been in place in the US since 2016. The changes being introduced in Europe are in line with ICAO and part of a global effort. Not implementing them would have an even more detrimental effect on safety.

There are airports that state "Idle Reverse mandatory" or "the use of Reverse is prohibited" which may not be conducive to a safe ops in contaminated runways. Is this going to be addressed? ie.: noise doesn't apply in contaminated ops.

In Airbus SOPs, the use of maximum reverse thrust is part of SOP on contaminated runways. Even on wet runways, Airbus recommends checking the ability to stop on a flooded runway before planning to land with Idle Reverse. The GAPPRE recommendation OPS23 states that in doubt flight crew should use "reverse thrust irrespective of noise related restrictions until a safe stop is assured".

Will the RCR be always be disseminated by AIS through the SNOWTAM format or is there any situation in which a NOTAM must be used (e.g. wet runway or slippery wet runway not associated with the presence of standing water, snow, slush, ice or frost)?[According to REG 2020/2148 SNOWTAM definition - means special series NOTAM given in a standard format, which provides a surface condition report notifying the presence or cessation of conditions due to snow, ice, slush, frost or water associated with snow, slush,

RCR is disseminated via SNOWTAM except in cases associated with water only where such information may be disseminated via ATS only.

One of the ways of distribution of the RCR is ATC. Will the full RCR be reported by Tower Controllers?

In principle yes. All information in the RCR is there due to a operational need except for the information relevant the chemicals and loose sand which are more for maintenance as they may be harmful for the aeroplane. Currently there are capacity limitations due to the technological platform(s) used and some information might only be available upon request. This will be addressed by EASA/ICAO separately.

Will RCR be available via ACARS? How RCR will be reported in ATIS? The extension of the RCR make it complicated and long. Will all items from the RCR be transmitted by ATIS?

In principle yes. All information in the RCR is there due to a operational need except for the information relevant the chemicals and loose sand which are more for maintenance as they may be harmful for the aeroplane. Currently there are capacity limitations due to the technological platform(s) used and some information might only be available upon request. This will be addressed by EASA/ICAO separately.

The GRF is a welcomed change and clear safety improvement. However, not much has been done to enable flight crews to receive runway condition report (RCR) in flight before reaching VHF-range. There are several safety reasons why it is needed but no excuse why such a system should not be designed and required. The technology already exists.

The issue is under investigation.

For the moment we have a friction value of 20 below which we have to close the airport for snow clearing / treatment. Will there be a limit value RWYCC where the operations have to be stopped? thanks in advance.

Operations should be discontinued when the RWYCC is assessed to be 0 (zero), until mitigated. Furthermore, the aerodrome should stop operations when two consecutive reports of POOR braking action or one report of LESS THAN POOR is made by a pilot.

"In winter period in bad weather conditions how is RWY closed? We should in plain text to give condition of RWY to air traffic control that RWY is closed for cleaning and assign cod RWYCC.
For example:
We have RWY is covered wet snow up to 20mm = RWY 3/3/3 100/100/100 20/20/20 wet snow/ wet snow/ wetsnow RWY is closed for cleaning?
Or RWY 0/0/0 "

When the runway has been closed for maintenance activities/snow removal a new inspection will be performed and a RCR produced following the ordinary procedures before the runway is again opened for traffic. The previous RCR/SNOWTAM will be available (8 hours limitation); however the ATS will not allow traffic on a runway closed for maintenance/snow removal activities. Approaching aircraft will make use of the new updated RCR.

Can you discuss the applicability of these new requirements for operators of performance B aircraft, using CAT.POL.A.355 (80%)

The AMC/GM associated with CAT.POL.A.355 prohibit using the benefit in contaminated conditions, and provide details on how this benefit can be applied on dry and wet runway. In particular for the case of wet runways a further check on landing performance in accordance with LDTA criteria is required when operating under CAT.POL.A.355.

According to EASA AMC1 ADR.OPS.A.065(a), when the runway is wet, not associated with the presence of standing water, snow, slush, ice or frost, the assessed information should be disseminated using the RCR through the air traffic service. Does this apply also to the slippery wet instance? Should we disseminate the slippery wet information through the air traffic service exclusively?

The intent of permitting dissemination of wet conditions without using a SNOWTAM was to limit the number of SNOWTAMs issued in changing conditions, for example passing showers. Slippery Wet conditions should be disseminated via NOTAM. When such a runway becomes wet, flight crew should be aware that it will be slippery. So dissemination of slippery wet conditions via ATC should be equally acceptable.

Layered contaminants are not covered by CS-25 definitions. How to correlate with existing contaminants from CS-25, especially for take-off?

The Aeroplane Performance Manual (APM) suggests some equivalences that have been validated as applicable to Airbus data. Other manufacturers may have different recommendations.

Consider that any fluid contaminant below 3 mm is wet, does it mean that wet grooved performance (whenever applicable) can be used for any contaminant with depth below 3 mm?

No, the improved performance is based on the improved dynamic drainage, which only applies to water, not to winter contaminants.

The Circular 355 includes info in 4.31: "For other reportable contaminants (oil, mud, ash, etc.), there is a large variance in the aeroplane performance effect, or insufficient data are available to permit a deterministic classification. An exception is rubber contamination, for which in-service data indicate that an assumption of RWYCC 3 restores usual performance margins." Is there intention or expectation behind providing this information?

The expectation is that any oil, mud, ash is removed quickly and to the largest extent possible by the airport. Operations on such surfaces should be avoided.

NPA 2016-11 states that maximum runway friction coefficient for specially prepared runways is 0.16, which corresponding to RWYCC 3. Nevertheless, ADR.OPS.B.036 states that "Specially prepared winter runways shall be associated with primary RWYCC 4". The concerning here is for dispatch performance, specially take-off, what would be the maximum runway friction coefficient for specially prepared runway (0.16 or 0.2)?

NPA 2016-11 was published before the introduction of the new concept for Specially Prepared Winter Runway in the Aerodrome Regulation, which included validation with aircraft data. The AMC 25.1591/1592 will be published with an updated cap of 0.20 for the friction coefficient, i.e. RWYCC 4.

On the Operator (Airline) side, what is the typical list of parts of the OM (Operations Manual) which have to be revised? OM-A, OM-B (Flight Crew Operating Manual, etc.)?

There is an impact on all parts: training, policy, performance and route manual.

Among the types of contaminants listed in ADR.OPS.A.065, hail is not present, how should this contaminant be reported?

The impact of hail on braking performance is not clearly identified. Hail can cause an engine ingestion hazard and projection against the airframe may cause costly damage. It is not recommended to operate on a surface covered with large hailstones.

How do you detect when RWY is slippery wet? Is slippery wet a condition that is only detected by routine braking tests or can it also be determined in other ways?

How to detect when a RWY third is SLIPPERY wet is addressed in ADR.OPS.C.010 (b)(4). Associated AMC and GM material describes methods to be used including a complete survey. Aircraft braking data complements this information.

If an RCR is issued that reports RWYCC 5/5/5, when the runway becomes dry is it necessary to issue another RCR that reads 6/6/6?

This is a significant change and a new RCR should be issued.

Is 'specially prepared winter runway' considered an upgrade? I'm asking because upgrade cannot go beyond RWYCC 3, but specially prepared winter runway is RWYCC 4.

No, a SPWR is a new runway state that is assigned RWYCC4. A SPWR can be downgraded.

Are there means that aerodrome operator can use to assess the runway surface conditions in compliance with the new legislation which, according to the measurements made, determine the RWYCC using the RCAM and generate a first draft of RCR?

The most important tool is the human eye as the information is gathered visually. Visual observations may be supported by measurements. An initial RWYCC is assigned using the Runway Condition Assessment Matrix (RCAM) which is subject to downgrading and upgrading procedures making use of all information available.

Is the minimum margin specified in CAT.OP.MPA.303 applicable also to DRY rwy?

Yes. But on dry runway the factored LDTA is always less than the landing distances required for dispatch. This is why, for the case of dry runways, the LDTA assessment may be reduced to confirming that the conditions assumed at dispatch have not changed.

There is no credit for runway treatment in Airbus manuals. Will Airbus change the manual to take into account the Specially prepared winter runway?

A Specially Prepared Winter Runway can be reported as a RWYCC 4 or 3. Airbus does not plan to publish any specific data, but within the available Airbus performance dataset Compacted Snow is a perfect equivalent for 4, and Dry Snow 10mm is a perfect equivalent for 3 (no drag accounted for at this depth). Other manufacturers may have different recommendations.

A swept RWY may show degraded friction due to snow confined in the macrotexture. Per definition there is no contaminant but the friction characteristics are not as anticipated. Hence 3/3/3 DRY/DRY/DRY.

A dry runway cannot be reported as DRY unless it is DRY. If snow is confined in the macrotexture it would be assigned a RWYCC 5, which can be downgraded. The intent when including the 3 mm threshold depth of SLUSH, WET SNOW and DRY SNOW was to identify a depth that allows the tires to displace the contaminant into the macrotexture of the surface. This is visible when a black track appears behind a tire rolling over it. For harmonization, it was chosen to equate this with a depth of 3mm.

If all thirds are covered below 25% the RWY is considered DRY. Is this applicable for take-off as well. AIR OPS definition being: Wet RWY means a RWY whose surface is covered by ANY visible dampness up to and including 3mm deep within the area of intended use.

If the prevailing runway condition is wet it is reported as WET. The aerodrome operator should assign a RWYCC 6, if 25 per cent or less area of a runway third is wet or covered by contaminant. Yes, it is applicable for take-off.

Has it been taken into consideration that not only landing aircrafts but also departing ones would benefit from the information given by the RCR (so as to avoid runway excursions during take-off)?

The RCR is to be used for both take-off and landing performance computations, as the SNOWTAM today. However, the RWYCC is specifically geared to landing performance.

In the Czech version of the R(EU) 2020/2148 there the phenomenon is translated as snow tongues. Is it proper translation? Is it the type of contamination on the surface or meteorological phenomenon on the airport (moving snow at very low height above the ground across the RWY?

Snowbanks or drifts? Snowbanks or drifts are on the surface. (EU) 2020/2148 does not use the term drifting snow describing moving snow across the surface.

What is the suggestion for take-off performance on a downgraded RWY. would it be the use of the contaminant or would it be required to amend the contaminant in the performance tool to reflect the downgraded RWY?

The ICAO Doc 10064 APM recommends that in case of downgraded RWYCC, take-off should be computed withe the reported contaminant, but the full runway used and rolling take-off avoided. Using a contaminant that matches the reported lower RWYCC may be unconservative due to drag and aquaplaning effects. The industry has agreed to a standard for taking into account both a RWYCC and a contaminant type and depth input for take-off computations. This was agreed relatively recently and it is not expected to be available much before next winter.

Will there be any recommendations for using technical equipment (like RWIS, mobile sensors etc.) to measure the runway condition and report/create the RCR/RWYCC?

No.

According to [ADR.OPS.A.065 (e)] - When a paved runway or portion thereof is slippery wet, the adr operator shall make such information available to the relevant aerodrome users by originating a NOTAM and shall describe the location of the affected portion. If a SNOWTAM has already been issued, does it mean that an additional NOTAM about the same situation "SLIPPERY WET RUNWAY" must be disseminated?

Yes, operators need the NOTAM to be able to plan for operations even before the runway is actually wet.

Question from the Airport Operator perspective. According to AMC1 ADR.OPS.B.015 Monitoring and Inspection of movement area and related facilities we need to inspect movement area at least twice per day for code no. 4. Will we use RCAM and SNOWTAM format for that also as of 12AUG21?

No. RCAM (not a stand alone matrix) is used when assigning a RWYCC as part of a RCR. The RCR is the source for producing a SNOWTAM.

Is it planned to have in tools (LPC for Airbus for instance) the ability to use 3 codes (whereas 1 actually) ?

No. Regulatory material still specifies that the runway should be considered to be homogeneous for the entire surface. Additionally, changes in runway frictions between thirds create instability in the optimization algorithms.

On slippery wet runways, in addition to the mandatory NOTAM, should the dissemination of the RCR be made on the frequency only or also via a SNOWTAM when rainy conditions are encountered ?

The intent of permitting dissemination of wet conditions without using a SNOWTAM was to limit the number of SNOWTAMs issued in changing conditions, for example passing showers. Slippery Wet conditions should be disseminated via NOTAM. When such a runway becomes wet, flight crew should be aware that it will be slippery. So dissemination of wet slippery conditions via ATC should be equally acceptable.

What is the recommendation to use for take-off performance on a downgrade runway. would it be the use of contaminant and depth or is the requirement to change the contaminant and depth to reflect the downgraded RWYCC in the performance tool?

Because take-off performance data always considers contaminant drag, it is not possible to cover every situation with a contaminant "equivalent" to the downgraded RWYCC. That is why it was agreed that computation tools should consider both a contaminant and a RWYCC and automatically calculate with the lower friction of both, but drag consistent with the reported contaminant. Tools that do this should become available progressively towards the end of the year.

When pilots report a different Braking Action to ATC, ATC has to inform only the aerodrome operator. It means that no information has to be passed by ATC to other aircraft on final for landing?

Because take-off performance data always considers contaminant drag, it is not possible to cover every situation with a contaminant "equivalent" to the downgraded RWYCC. That is why it was agreed that computation tools should consider both a contaminant and a RWYCC and automatically calculate with the lower friction of both, but drag consistent with the reported contaminant.Tools that do this should become available progressively towards the end of the year.

FORECASTS: Do airports would have to make as well some kind of (short range) forecasts of the expected RWY condition?

No.

One most difficulty for the airport operators who are on the runway for measurements is to estimate the surface of contaminant, specially the estimations 10 and 25% coverage. What do you think about it? Some methodology?

No.

Question from the Airport Operator perspective. According to AMC1 ADR.OPS.B.015 Monitoring and Inspection of movement area and related facilities we need to inspect movement area at least twice per day for code no. 4. Will we use RCAM and SNOWTAM format for that also as of 12AUG21?

The regulation and the related AMC/GM do not specify the methods that should be used for assessing the coverage of the contaminant. Aerodrome operators can choose any method, tool or procedure to do this. The most important tool is the human eye, visual observation and coverage assessed by a trained and competent person.

When calculating LDTA, what flare distance (or time) is used? Is it 7 seconds as for TALPA ARC?

That is correct, 7s at 98% of the planned approach (ground) speed.

Is there already a specific place in the AIP (AD1, AD2,...) to introduce the GRF system do we describe it just along with the snowplan sections?

The relevant place is AD 1.2. EASA is working on a proposal to re-arrange the structure of this part.

At our airport we have no sensors or equipment to measure depth of a contaminant. Is it accepted to use estimated depths in the RCR?

Yes. Depth is normally assessed by a trained and competent person.

Is there any advice on Hail as a contaminant?

The impact of hail on braking performance is not clearly identified. Hail can cause an engine ingestion hazard and projection against the airframe may cause costly damage. It is not recommended to operate on a surface covered with large hailstones.

If there is a discrepancy between the RCR in force and the visual environment (no update for ex), should the ATC transmit the RCR of the AIREP?

The RCR is the valid information until there is a significant change and a new RCR is produced. AIREPs are relayed by the ATS to the aerodrome operator and the information is being evaluated and may be used when assessing the runway conditions again. It is not the role of the ATS to issue RCR.

Any information about the Russian "normative" friction reporting?

The CIS is in the process of adopting the GRF. The same ICAO recommendation not to report friction also applies to the normative values currently reported.

In case of coverage of less than 25%. RCR should consist only RWYCC (6), type of contamination and percentage (25). Does it mean, that nothing else is reported? Does it exist some "shorter" RCR reported only orally via ATC?

According to ADR.OPS.B.037 (a) a RWYCC is assigned based on the type and depth of the contaminant and the temperature.Contaminant is reported using the terms specified in ADR.OPS.A.065. For coverage less than 25% see GM1 ADR.OPS.B.037(b) (a) (1) and (2). Reported: RWYCC 6, WET, 25 when the percentage is 10% or above or equal to 25%. All information in the RCR is there due to a operational need except for the information relevant the chemicals and loose sand which are more for maintenance as they may be harmful for the aeroplane. Currently there are capacity limitations due to the technological platform(s) used by ATS and some information might only be available upon request. This will be addressed by EASA/ICAO separately.

So damp considered as wet by everyone now - correct? Which has impact to runway operational status.

That is correct. For most operations, payload capabilities are not affected by wet conditions (but are still important for performance!). It does increase the frequency of reporting.

Depending on their sizes, aerodromes may encounter time of the day when the air traffic service is not available. In this case, the RCR cannot be transmitted to the pilots on the frequency. What does rules applicable to aerodrome operators provide for in such cases?

The only information that can be provided to the crews is that air traffic service is not reported.

In countries where RWYCC are not applied, which information should be taken into account for the calculation of the performance, the contaminant or the Braking Action particularly when both information lead to different RWYCC (following the RCAM)?

When no RWYCC is reported, the flight crew can attempt to emulate the ground process for determining RWYCC. The primary classification is by the contaminant type and depth. AIREPs can be used for downgrading. The flight crew should never upgrade.

Question on the methodology to deal with the upgrading of an RCC classification (from 1 to 3, for example). Our associated OEMs don't commonly provide performance data arranged under the RCC classification from 1 to 6 (the data is simply arranged with descriptors). Under this scenario, should the mentioned upgrade come up, which of the RSD datasets associated with RCC 3 should we use?

This should preferably be discussed with the data provider/OEM, as assumptions in data may differ between manufacturers.

As an operator, how do we verify that an airfield is approved/authorised for Specially prepared winter runways. Should it be stated on the AIP?

The approval status should be published in the AIP by the aerodrome operator. See ADR.OPS.B.035 (b)(2).

Specific performance dataset associated with the RSD is up to the pilot? Meaning, the upgrade allows the crew to select an RSD that is located within RCC 3, rather than RCC 1 and its up to the crew to select such RSD.

This should preferably be discussed with the data provider/OEM, as assumptions in data may differ between manufacturers.

What (if any) differences will be between NOTAM and METAR format of GRF?

GRF is a acronym for the global reporting system and format. The system provides a runway Condition Report tailored to meet an operational need. The RCR is converted into a SNOWTAM (a specialised NOTAM) by the AIS by adding dissemination syntax to the RCR information without interfering with the integrity of the RCR information. The METAR is not part of the GRF. The runway State Group that has been attached to the METAR will be discontinued 12 August 2021.

15% on Actual Landing Distance DRY? Or something else on contaminated is requested by EASA on CS 25?

CS25 will require to provide LDTAs for all runway conditions, including RWYCC 6 - Dry. The minimum operational factor that is required by CAT.OP.MPA.303 is 15%, including for dry. The LDTAs should not be confused with the Actual Landing Distance, which is a term historically used for the AFM distances used for dispatch. The dispatch factor for dry runway remains 1.67 for turbojets for example as per CAT.POL.A.230.

Is there any guidelines on implementation in ATIS? In particular what to include from the situational awareness section. The ATIS might end up very long if all twys are to be included. Guidance on phraseology and order of the items in ATIS?

ICAO published a flyer containing guidance on how runway surface conditions could be disseminated via ATIS. EASA is working on the issue.

Are you able to clarify and provide an example relating to the statement RWYCC 5,4,3,2 cannot be upgraded?

The upgrade mechanism was originally set up to use friction measurements. Because of the loose relationship between CFME measurements and aircraft performance, a margin of 2 RWYCCs was set up, i.e. to upgrade from 1 to 3, the measurements should indicate Good (5) braking action. Such a margin cannot be put in place for primary classification above RWYCC 1, upgrade is thus not permitted.

How are the pilots going to have the information on RCR before top of descent for destination and alternate and en-route for en-route alternates?

The issue is under investigation.

Has there been any consideration of the challenge that runway inspectors (RIs) face in attempting to assess the presence, percentage coverage, nature and depth of layered contaminants? If so is there any related documentation?

The challenges are no different than in the current SNOWTAM format where the inspector need to assess the presence, the percentage coverage, nature and depth of contaminants, layered inclusive. The introduction of the GRF has brought this challenge into sharp focus.

On AIREP there is not descriptor to report Aircraft Type. This info is important for pilots

"CAT.OP.MPA.311 Reporting on runway braking action Whenever the runway braking action encountered during the landing roll is not as good as that reported by the aerodrome operator in the runway condition report (RCR), the commander shall notify the air traffic services (ATS) by means of a special air-report (AIREP) as soon as practicable. ATS.OR.530 Forwarding of braking action information.
If an air traffic services provider receives by a voice communication a special air-report concerning braking action which does not correspond to what was reported, it shall inform without delay the appropriate aerodrome operator. AMC1 SERA.14001 1.1.11 g. gives the format on ATC phraseologies (aircraft type is included)AMC1 ADR.OPS.B.037(c) gives information on how the aerodrome operator make use of the AIREP information."

Considering the Pandemic still ongoing and the difficulties of the flight crews to keep up with standards (few/no flights), has EASA considered further delay in the introduction of this significant change in regulation?

A further delay in Europe, departing from the global effort undertaken by ICAO would have an even more detrimental effect on safety.

For completion of SNOWTAM, is it possible to avoid entering 00, 01, 02, 03 as depth if WET condition apply and only permit NR in this case or 04 and above if other applies?

Yes. For WET no depth is reported. When no information is to be reported, 'NR' is inserted at the relevant position of the message, to indicate to the user that no information exists.AMC1 ADR.OPS.A.065(b);(c) - Table 2: Depth assessment for contaminants. For STANDING WATER 04, then assessed value with a significant change of 3 mm.

In which way is it possible to account for the possible time lag between time of submitting the RCR and actual RWY state at the same time? Depending on the weather situation, RWY state may vary on short-term basis.

In case of active precipitation, flight crew should evaluate the worst acceptable condition during descent preparation in order to have a "canned decision" (continue/go-around) ready in case of late change of information.

What is the exact relation between RCR and SNOWTAM?

The RCR is the content of the report, whatever the medium used for transmission. The SNOWTAM is a special NOTAM that contains the information of the RCR. When a SNOWTAM is used for dissemination it contains the full RCR information intact with its full integrity.

What tools are recommended to measure the depth of the various contaminants? It would be interesting to see what are the most reliable methods in Europe and the rest of the world in order to find the most real way.

EASA does not recommend any specific tools.

Is there a section on EASA website (or elsewhere) where we can practise issuing RCR's with given scenarios?

No but EASA will published FAQs after the webinars.

How is reporting the condition of the stopway managed, if this is not included as part of the runway thirds?

In line with CS-ADR-DSN the airport should not allow the stopway to have significantly different surface characteristics. Should this happen, a specific information should be provided in the plain language remarks.

Why do some manufacturers publish SOPs in their documentation, such as Airbus, and other manufacturers such as Boeing do not provide any information? For Boeing/EMB etc., where would the pilots' instructions be found?

That needs to be discussed with the manufacturer. We have chosen to adapt our SOPs to the GRF, but since this is basic regulation it could be considered not to be specific to an aircraft type.

Airport are facing a huge loss of traffic and reducing to a minimum personnel on duty. How can they manage training for the assessment?

Applicability of the new GRF has been postponed by ICAO and EASA due to the impact of the pandemic.

How can I as a pilot obtain info regarding the 'weight', or the different elements of the assessment, (e.g. 50% friction, 30% pilot reporting, 20% FDM data in the future etc)?

It is a task of the aerodrome personnel, to combine the various elements for the purpose of assessing the runway condition.

In the OPS presentation slide 12 there are references to AMC and GM to CAT.OP.MPA.303 and CAT.OP.MPA.311 and an example training syllabus. Where can these be found? (not in the Easy Access version that I can find)

The whole set of AMC/GM including the training syllabus is going to be published soon.

The reasons to remove the MOTNE do not solve the problem of receiving the information.

The issue is under investigation.

Is EASA proposing a sample risk assessment for GRF implementation for operators' use?

No.

GM2 ADR.OPS.B.037(a) Assessment of runway surface condition and assignment of runway condition code ICE is considered to be untreated ice that covers the runway macrotexture. How to assess and make a RWYCC and type of contamination. Is it a dry RWY or is it a RWY covered with ICE?

A RWY covered with ice reported as ICE with initial RWYCC 1 which can be upgraded to a maximum RWYCC 3.

Can you provide a link to the ICAO training material?

https://www.icao.int/safety/Pages/GRF.aspx

Regarding ATIS, a change in the met conditions reported in ATIS should lead to a updated ATIS other than the standard reporting times for ATIS updates. This should be equally applicable if there is a change to runway conditions if that is included in the ATIS. If a change in rwy conditions triggers a new ATIS there would not be a difference in information. The important thing is to make the latest information available to the incoming airborne crew.

Noted.

In the case of a specially prepared winter runway, is that qualifier added in the RCR for situational awareness?

Specially prepared Winter Runway is added to the Runway Condition Assessment Matrix (RCAM) and appears in the aeroplane performance calculation section of the RCR as SPECIALLY PREPARED WINTER RUNWAY and RWYCC 4 (or downgraded).

Do you now when will be issued the new CS amdt that will officially publish the new CS25.1591 & CS25.1592 and their associated AMCs ? Is the target date of Q1 2021 still valid ?

The amendment to CS-25 is in the final stages of internal validation and will be published in the coming weeks