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Australian Government
Civil Aviation Safety Authority



SUMMARY OF CONSULTATION

**CD 2313AS - Global reporting
format - Runway surface
condition assessment and
reporting**

Project number: AS 18/05

File ref: D24/27194

January 2024

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Acknowledgement of Country

The Civil Aviation Safety Authority (CASA) respectfully acknowledges the Traditional Custodians of the lands on which our offices are located and their continuing connection to land, water and community, and pays respect to Elders past, present and emerging.

Artwork: James Baban.

We asked

This consultation asked respondents to review proposed rules relating to the implementation of the global reporting format (GRF) in Australia, along with some miscellaneous amendments to the Part 139 MOS. Respondents were asked specific questions on identified key issues. The consultation has now closed, and a summary of the feedback is provided below.

About this consultation

The consultation opened on 30 October 2023 and closed on 27 November 2023. There were 28 respondents to the survey. Twenty-two respondents were authorised to submit feedback on behalf of their organisation and 6 provided their personal views. Eighteen respondents provided permission for their submissions to be made public with 10 respondents requesting their submissions remain confidential.

You Said

There were 28 respondents to the survey. The industry break-up is as follows:

- Twenty-one aerodrome operators.
- Two pilots, including 1 air transport pilot.
- Two aerodrome consultants.
- One air navigation service provider.
- Two industry associations representing airports and airline pilots.

There were 33 questions in this consultation, along with a request for feedback regarding an accompanying GRF advisory circular (AC), and any additional comments. Due to the number of runway surface condition inspection, assessment and reporting elements needed for implementation of GRF, each of the policy areas needs to be reviewed in terms of the consultation feedback.

Responses could be 'Agree', 'Agree, with changes', 'Disagree' or 'Undecided/Not my area of expertise' or no answer. The percentages of each kind of response provided in this SOC are based on responses that agreed, agreed conditionally, or disagreed.

In relation to the miscellaneous Part 139 MOS amendments, there were overall support for the proposed amendments.

Summary of feedback

Overview

Hazards associated with runway surface conditions

'Wet', 'Slippery Wet' and 'Contaminated' runway surfaces are a hazard to most aeroplane operations due to reduced runway surface friction that can impact braking performance.

Parts 121 and 135 of CASR require aeroplane air transport pilots to take into consideration 'wet' and 'contaminated' runways and/or runway surface conditions in landing and take-off performance. Part 91 requires other pilots to take into account either the AFM, the manufacturer's data manual (if any) or other data approved under Part 21 of CASR. Landing and take-off performance is achieved by applying multiplying factors to landing and take-off distances.

Some consultation feedback was that GRF runway surface condition reports should only be provided for certified aerodromes with scheduled Part 121 operations and be optional for other certified aerodromes. This is similar to the previous policy consulted under PP 2211AS, however this policy ultimately did not fulfill CASA's safety responsibilities to address the risks for the majority of aeroplane operations, associated with operations on runways with reduced runway surface friction.

Runway excursion safety data

A few responses requested the specific safety data that supported implementation of GRF in Australia. Runway excursions are one of the top aviation safety priorities of the International Civil Aviation Organization (ICAO). The Flight Safety Foundation (FSF) also indicated that the third most common landing excursion risk factor is ineffective braking action, due to runway contamination such as snow, ice, slush or water.

An Australian example is at Newman aerodrome where water on the runway was a contributing factor as described in ATSB's report [AO-2020-002](#). Newman is a non-controlled certified aerodrome and, under the previous proposed policy, implementation of the GRF would have been voluntary. From the report 'Findings':

Contributing factors

The combination of the approach speed required by the prevailing wind conditions and the poor braking effectiveness in the wet conditions resulted in the aircraft overrunning the runway.

Other factors that increased risk

During the flight, the potential for the heavy or moderate rainfall to significantly impact the landing distance was not recognised by the flight crew and therefore not considered as a threat.

Despite technical examination of the runway identifying areas requiring maintenance to maintain the surface friction, no corrective action was taken.

The operator's documentation required crew to consider contamination of runways at the departure and destination airports. However, the provided definition and guidance did not include the means to identify water contamination from active rainfall. (Safety Issue)

CASA advisory publications did not include information regarding the potential for reduction in braking performance resulting from active moderate or heavy rainfall. (Safety Issue)

Additionally, providing runway condition reports for 'wet', 'slippery wet' and 'contaminated' runways is not only designed to prevent a runway excursion, but this information is operationally important to pilots in relation to determining runway length required for landing and take-off.

GRF inspection validity period

Many responses provided by aerodrome operators, and the association representing airports, indicated that implementing GRF would require aerodrome personnel to be present or available 24 hours, 7 days per week, because aeroplanes could arrive at any time the aerodrome was open, which would meet the definition of '*anticipated*'.

The intention was to limit runway surface condition inspections and reports to aeroplane flights 'known in advance' to the aerodrome operator. For example, these would include scheduled (in accordance with fixed schedules to and from fixed terminals [and] available for use by persons generally) and non-scheduled (in accordance with fixed schedules to and from fixed terminals [and] not available for use by persons generally) air transport operations. Having an aerodrome open 24/7 or for other periods does not mean that arriving aeroplanes are known to the aerodrome operator. Many respondents requested the wording to be changed to scheduled or requested by the pilot.

CASA will review the wording 'scheduled, otherwise anticipated, or ongoing' to reflect an aerodrome operator having advance notification from an aeroplane operator in order to be able to prepare for a runway surface condition inspection and report, if required. This was the intention with the current wording. Multi-Part AC 91-32 and AC 139-22 v1.0 Global reporting format – Runway surface condition will also be updated to provide specific guidance.

GRF reporting by aerodrome operators

Many responses provided by aerodrome operators, and the association representing airports, indicated that significant additional resources would be required for remote and regional aerodromes that already have limited staff numbers. Much of this workload could be associated with reporting 'wet' runways to pilots at non-

controlled aerodromes. The reason ICAO did not require runway condition reports for 'wet' runways (i.e. NOTAMs) was to:

'...limit the volume of reports to the amount necessary for safe operations and not create unnecessary burden on all stakeholders ... to issue a full runway condition report as the runway is drying up from a wet condition only ... would place an unrealistic burden on the aerodrome operator and the current network for dissemination'.

GRF provisions in Annex 14 Vol I, PANS-Aerodromes and PANS-ATM assume all certified aerodromes have control towers and aerodrome operators can provide single reports to ATC as conditions change. These reports are then normally recorded and broadcast on the ATIS and do not require regular directed transmissions to individual pilots. There is no similar mechanism to report 'wet' runways to pilots at non-controlled aerodromes.

The proposal for aerodrome operators to report 'wet' runways to pilots was agreed by the NRSG GRF WG. However, noting the feedback regarding aerodrome operator workload and resource requirements, particularly in relation to the significant number of circumstances where runways would be 'wet', the emphasis will be on reporting 'slippery wet' or 'contaminated' runways and it won't be necessary to report a wet runway, directly to pilots.

However, as controlled aerodromes service 93% of scheduled air transport passengers, it is appropriate to have reporting of 'wet' runways at these aerodromes. Aerodrome operators can provide reports to ATC, who can then broadcast the reports via the ATIS, or, if the aerodrome operator has an agreement in place with ATC, ATC can undertake the observation and reporting of wet and drying runways entirely.

We believe it is acceptable to not report 'wet' runways to pilots at non-controlled aerodromes as the risk to pilots of operating on 'wet' runways is currently treated through the flight planning requirements within the Part 91 MOS to take into account 'authorised weather forecasts and authorised weather reports for ... the planned destination aerodrome' and 'the landing weather forecast'. Under the Part 121 MOS, pilots must treat runways as 'wet' or 'contaminated' for landing purposes if authorised forecasts indicate that the runway *could* be 'wet' or 'contaminated'. The Part 135 MOS requires pilots to take into account the 'runway surface condition' for landing and take-off performance. Additionally, braking action for a 'wet' runway is 'GOOD' so does not present a significant braking hazard that requires such extensive reporting to pilots by aerodrome operators.

For 'slippery wet' and 'contaminated' runways, including 'standing water', a runway condition report is required to be issued by aerodrome operators as a NOTAM. These conditions will be relatively rare, however, should not come as a surprise to aerodrome operators with previous experience of wet weather impacts on runway surfaces. Additionally, if an aerodrome operator is unable to issue a GRF NOTAM, there is always the safe option of closing the runway completely.

Annex 11 of the Chicago Convention describes the scope of flight information services (FIS) which includes 'information on changes in condition of aerodromes and associated facilities, including information on the state of the aerodrome movement areas when they are affected by snow, ice or significant depth of water'. Additionally, VHF operational flight information service (OFIS) broadcasts can include 'significant runway surface conditions and, if appropriate, braking action'.

Under PANS-ATM, several circumstances are to be transmitted to aircraft and a number of these are additionally subject to NOTAM e.g. volcanic activity, radioactive material and space weather. Also, there is a generic requirement to make a 'directed transmission on the initiative of the appropriate ATS unit to an aircraft' and to pass 'essential information' via general calls due to the 'the sudden occurrence of hazards'. Additionally, FIS is already provided to pilots for SIGMETs, SPECIs and Amended TAFs, therefore GRF NOTAM fit reasonably well within these weather-related hazards. ATC are trained to provide FIS and broadcasts to pilots, whereas aerodrome personnel, for example, aerodrome reporting officers (AROs) are not trained to make directed or general broadcasts to pilots, and specifically the RCR format.

However, aerodrome operators that have UNICOM services or CA/GRS would have trained aerodrome personnel competent to make radio broadcasts to pilots. Therefore, CASA will remove the requirement for aerodrome operators to report 'slippery wet' and 'contaminated' runways directly to pilots, retain reports via UNICOM or CA/GRS if available, and work with Airservices Australia to establish FIS procedures for dissemination of GRF NOTAMs by ATCs.

Part 91 MOS

Pilot reports of braking action to ATC

Seventy-six (76%) of respondents agreed or agreed with changes to this proposal. However, some respondents indicated that pilot reports of braking action, where it was not as good as expected, should also be given to operators of non-controlled certified aerodromes. This would facilitate aerodrome operators assessing a runway as being 'slippery wet' following two or more consecutive pilot reports of braking action of 'medium' for a 'wet' runway.

Regulation 91.675 of CASR already requires pilots to report hazards on an aerodrome, for example, runway surface friction, to aerodrome operators. We will amend the relevant guidance entry in the Part 91 AMC/GM document to inform pilots about reporting braking action at non-controlled certified aerodromes.

Runway surface condition for landing and take-off performance

Seventy-five percent (75%) of respondents agreed or agreed with changes to this proposal, being that pilots account for runway surface and runway surface condition reports, if available, in determining landing and take-off performance.

Part 139 MOS

Global Reporting Format

Transition periods

Seventy-seven percent (77%) of respondents disagreed to the proposal for a 6-month transition period for controlled aerodromes or certified aerodromes with scheduled Part 121 operations and 67% of respondents disagreed to the proposal for a 12-month transition period for the remaining certified aerodromes.

The common issues were:

- staff training
- additional staffing requirements
- availability of staff 24/7.

As stated on Pages 3-4, many of the responses could be related to the resource and training requirements for 24/7 staffing and reporting of 'wet' runways directly to pilots at non-controlled aerodromes.

Reflecting on these comments, we have reconsidered the proposal and the final standards will not require 24/7 staff availability for the reporting of 'wet' runway surface conditions, directly to pilots by aerodrome operators. Direct reporting to pilots of 'slippery wet' and 'contaminated' runway conditions will only be needed if the aerodrome has a UNICOM service or CA/GRS. NOTAMs for 'slippery wet' and 'contaminated' runways will still be required.

The NOTAM format being implemented in Australia is an abbreviated version of the full ICAO aeroplane performance calculation section and we are not implementing the situational awareness section which is more relevant for winter snow and ice conditions.

'Slippery wet' and 'contaminated' runway surface conditions are expected to be infrequent occurrences in Australia and an aerodrome operator should be familiar with the surface of their runway/s in order to know if they are susceptible to standing water, reduced friction or otherwise being contaminated, such as snow.

AROs are already trained to conduct movement area serviceability inspections and to request NOTAM on a significant range of complex technical issues including published runway information, aerodrome works, unserviceability of aerodrome lighting, obstacles, wildlife hazards, any change within the take-off climb area and any other event which affects the safety of aircraft using the aerodrome. Therefore, AROs should already have the technical capability to assess and report runway surface conditions via a NOTAM. Additionally, the aerodrome manual should include a format for the RCR NOTAM so that it can be issued whenever the runway surface conditions exist.

Multi-Part AC 91-32 and AC 139-22 - Version 1.0 - Global reporting format – Runway surface condition, will provide substantial guidance on runway surface condition assessment and reporting as well as a training syllabus. The AC also includes a reference to an online ICAO/ACI training course which is 3 hours in duration and costs \$US150. This ICAO training is not mandatory but may be a useful resource for many certified aerodromes. CASA will also provide webinars to aerodrome operators as part of its transition communications strategy.

As with all major regulatory implementation projects, CASA will monitor compliance by certified aerodrome operators during the transition period.

GRF definitions

Eighty-two percent (82%) of respondents agreed or agreed with changes to this proposal. There were some comments on the need for a 'slippery wet' definition, however this is an ICAO definition and is a specific hazard associated with 'wet' runways where pilots experience reduced braking performance due to reduced runway surface friction.

Aerodrome manual procedures

Sixty-five percent (65%) of respondents agreed with the proposal to include procedures in the aerodrome manual for runway surface condition assessment and reporting. Some comments were provided regarding the need for 24/7 staffing which is not required by the GRF proposals. One comment was made that suitable equipment was required to determine runway surface conditions; however, visual assessment is the primary means to assess runways. For example, if they are 'wet', have 'standing water', or are 'otherwise contaminated'.

Inspection requirements if aeroplane operations are taking place or scheduled

Fifty-seven percent (57%) of respondents agreed or agreed with changes to this proposal. Many comments favoured inspections being provided for scheduled Part 121 operations or 'on request' by pilots. The current requirement for an inspection 'after a severe wind event, a severe storm or a period of heavy rainfall' applies whenever these weather events happen, regardless of whether aeroplane operations are taking place or planned.

We will review the wording 'scheduled, otherwise anticipated, or ongoing' to reflect an aerodrome operator having advance notification from an aeroplane operator in order to be able to prepare for a runway surface condition inspection and report, if required. This was the intention with the current wording.

However, for something that significantly impacts availability of aerodrome resources, an 'on request' inspection requirement is impractical and would require aerodrome staffing levels which contradicts the proposal to only require inspections for scheduled operations. If an aerodrome is open and there is a storm, then any pilot could request an inspection at any time of the day or night. Additionally, aerodrome resources would be unable to be quantified as pilot requests would be ad hoc.

Note linking the inspection to maintenance requirements in Chapter 18 in the event of pooling, ponding or poor drainage of water

Sixty-eight percent (68%) of respondents agreed to this proposal. Some responses indicated that the inspection note would require immediate rectification of the runway surface by the aerodrome reporting officer (ARO), however the note is linked to Chapter 18 of the Part 139 MOS which relates to pavement maintenance. The note simply provides a maintenance link to the most likely cause of pooling or ponding water which is heavy or steady rainfall.

Eighty-three percent (83%) of respondents agreed to the proposed maintenance requirements in Chapter 18.

Note stating inspections are not required if weather conditions pose a safety hazard to aerodrome personnel

Eighty-six percent (86%) of respondents agreed or agreed with changes to this proposal.

Inspection requirement if meteorological conditions could cause a change to the RWYCC or type of runway surface contaminant

Sixty-five percent (65%) of respondents agreed or agreed with changes to this proposal. Many comments were provided that inspections should be for scheduled Part 121 operations or 'on request'. See previous response on page 6.

We will review the wording 'scheduled, otherwise anticipated, or ongoing' to reflect an aerodrome operator having advance notification from an aeroplane operator in order to be able to prepare for a runway surface condition inspection and report, if required. This was the intention with the current wording.

Extra daily serviceability inspection requirement for aerodromes with scheduled international air transport operations on Code 3 or 4 runways

Ninety-two percent (92%) of respondents agreed or agreed with changes to this proposal.

Individual serviceability inspections count for any of the other inspection requirements

Ninety-six (96%) of respondents agreed to this proposal.

Applicability of the GRF to all certified aerodromes with a sealed runway

Fifty-four percent (54%) of respondents agreed or agreed with changes to this proposal. Of the 12 responses that disagreed with the proposal, 5 were very similar in content requesting the GRF implementation be limited to scheduled Part 121 operations and optional for other aerodromes.

Additionally, the responses placed a limitation on pilot requests for runway condition reports in that the aerodrome operator could decline the request. These responses are in support of the previously consulted policy proposals (that is mandatory GRF implementation at controlled aerodromes with scheduled Part 121 operations and voluntary for other certified aerodromes with Part 121 operations). However, the previous policy was mandatory for only 23 controlled aerodromes out of over 330 certified aerodromes. This would have resulted in an overwhelming number of aeroplane operations which would not have had access to information on 'slippery wet' and 'contaminated' runway surfaces.

CASA, as a safety regulator, is responsible for identifying and mitigating through regulatory measures, hazards to aviation. In the case of the GRF the hazard being addressed is runway surface condition caused by unreported instances of reduced runway surface friction due to the runway surface being 'wet', 'slippery wet' or 'contaminated'.

However, only requiring runway condition reporting at controlled aerodromes means there would be no protective reporting at the considerable number of non-controlled aerodromes at which Part 121, Part 135 and Part 91 operations occur. This is a risk that CASA cannot accept without certain controls. These controls, including reporting only of 'slippery wet' and 'contaminated' runway surface conditions (by NOTAM; and UNICOM or CA/GRS, if established) which aims to minimise the impact on operators of non-controlled certified aerodromes.

We will review the wording 'scheduled, otherwise anticipated, or ongoing' to reflect an aerodrome operator having advance notification from an aeroplane operator in order to be able to prepare for a runway surface condition inspection and report, if required. This was the intention with the current wording.

Any serviceability inspections should also specifically check for presence of visible dampness (to indicate a runway is wet) or runway surface contaminants

Seventy-seven percent (77%) of respondents that agreed to this proposal. Eighteen percent (18%) of respondents that agreed or disagreed said this function was included in existing inspections, however there is no current regulatory requirement to include wet or contaminated runway surfaces in the GRF format under routine serviceability inspections. One respondent stated this would require additional training or qualifications, however dampness, water and snow etc are clearly visible on a runway without the need for additional training.

Assignment of an RWYCC based on the runway surface description

Sixty-five percent (65%) of respondents agreed to this proposal. The respondents that disagreed provided a wide variety of responses with some querying consistency with ICAO, using ICAO terminology, and suggesting pilots determine the RWYCC. We have used Table II-2-3 from PANS-Aerodromes - Assigning a runway condition code (RWYCC) as a basis, however, we have split it into WET/DRY conditions which are the predominant conditions in Australia and SNOW/ICE conditions.

Reporting of runways that are wet or have standing water using the runway condition report (RCR)

Sixty-seven percent (67%) of respondents agreed or agreed with changes to this proposal. The main response from those that disagreed was in relation to the applicability of the GRF and not to using the RCR to report 'wet' or 'standing water' runways.

We will review the wording 'scheduled, otherwise anticipated, or ongoing' to reflect an aerodrome operator having advance notification from an aeroplane operator in order to be able to prepare for a runway surface condition inspection and report, if required. This was the intention with the current wording.

RCR format for runways that are wet or have standing water

Sixty-eight percent (68%) of respondents agreed to this proposal. A couple of respondents that disagreed requested staying with ICAO format. The RCR format being implemented is the ICAO format with the removal of some elements of the RCR which increase complexity for assessment and reporting. Additionally, we are making the reports more understandable to pilots by prefixing RCRs with 'RWY'. Also, we are reporting 'contaminated' runway thirds that have 25% or less of a contaminant on that third as 'WET' to indicate they are not completely 'DRY'.

Reporting of wet runways or runways with standing water to ATC, NOTAM Office or pilots

Seventy-two percent (72%) of respondents agreed or agreed with changes to this proposal. Of those respondents that disagreed (and agreed), concerns centred around reporting 'WET' runways to pilots. Those that disagreed expressed concern that the reporting requirement would apply 24/7 and the aerodrome reporting officer should be able to depart an aerodrome after last scheduled departure.

Reporting 'wet' runways to ATC is not necessarily a burden on aerodrome operators as ATC will normally record 'wet' runways on the ATIS and do not make direct reports to pilots unless reported conditions change or on request. Other than when an aerodrome has a CA/GRS, there is not a pre-record facility at non-controlled aerodromes that mimics the ATIS. There are very few, if any, remaining CA/GRS. Additionally, controlled aerodrome operators will not need to assess and report 'wet' runway conditions to ATC if there is an agreement in place between the aerodrome operator and ATC for the latter to make the assessment. Therefore, requiring non-controlled aerodrome operators to make these reports, even if only when possible, places a much higher regulatory burden on over 300 certified aerodrome operators in comparison to 23 operators of controlled aerodromes which are major certified aerodromes with 93.6% of scheduled air transport passengers (2022/23 BITRE data).

Although CASA maintains GRF reporting is only required where advance notification from an aeroplane operator is provided, the requirement to broadcast 'wet' runways directly to pilots where the aerodrome reporting officer is equipped with a VHF radio could seriously impact on an aerodrome operator's staffing levels due to the prevalence of rain and 'wet' runways throughout the year as opposed to 'standing water', 'slippery wet' and 'contaminated' runways which would be relatively infrequent. Therefore, the reporting of 'wet' runways to pilots, by aerodrome operators, will be removed from the reporting requirements.

'Standing water' RCRs are required to be provided to ATC at controlled aerodromes.

'Standing water', 'slippery wet' and other 'contaminated' runway conditions require a NOTAM to be issued and these NOTAMs can be relayed to pilots by ATC as part of the FIS. In this way the hazard is communicated in an expeditious and efficient manner by ATS personnel. 'Standing water', 'slippery wet' and other 'contaminated' runways will still only need to be reported to pilots by the aerodrome operator if UNICOM services or CA/GRS is available.

At controlled aerodromes, if there is an agreement in place between the aerodrome operator and ATC, ATC can make the assessment and reports for wet runways

Eighty-eight percent (80%) of respondents agreed to this proposal.

Reporting of runways that are slippery wet only using the runway condition report (RCR), including if braking action reports of MEDIUM are provided from at least 2 pilots directly to the aerodrome operator or from ATC

Sixty-five percent (65%) of respondents agreed or agreed with changes to this proposal. Among the respondents that either agreed with changes or disagreed were comments requesting the GRF implementation be limited to scheduled Part 121 aeroplane operations or if requested by the pilot.

We will review the wording 'scheduled, otherwise anticipated, or ongoing' to reflect an aerodrome operator having advance notification from an aeroplane operator in order to be able to prepare for a runway surface condition inspection and report, if required. This was the intention with the current wording.

Additionally, comments were provided that a note was needed explaining that friction measuring equipment is not necessarily required to determine 'slippery wet' runways. However, Multi-Part AC 91-32 and AC 139-

22 v1.0 Global reporting format – Runway surface condition, provides guidance on determining when a runway has a 'slippery wet' surface, therefore a note is not required in the Part 139 MOS.

CASA has reviewed the PANS-Aerodromes requirement for pilot reports and will add the word 'consecutive' to the requirement for two or more pilot reports of braking action being not as good as reported.

RCR format for runways that are slippery wet

Seventy-three percent (73%) of respondents agreed to this proposal. Two respondents requested compliance with ICAO which the proposal provides. Another respondent questioned the use of percentages for runway thirds. This granular level of 'slippery wet' reporting was requested by the airlines due to the particular hazard associated with reduced runway surface friction.

Reporting of slippery wet runways to ATC, NOTAM Office or pilots

Sixty-four percent (64%) of respondents agreed or agreed with changes to this proposal.

'Slippery wet' RCRs are required to be provided to ATC at controlled aerodromes.

'Standing water', 'slippery wet' and 'contaminated' runways require a NOTAM to be issued and these NOTAMs can be relayed to pilots by ATC as part of the FIS. In this way the hazard is communicated in an expeditious and efficient manner. 'Standing water', 'slippery wet' and other 'contaminated' runways will only need to be reported to pilots by the aerodrome operator if UNICOM services or CA/GRS is available.

Assignment of an RWYCC based on the runway surface description for otherwise contaminated runways

Eighty-three percent (83%) of respondents agreed or agreed with changes to this proposal. There were no significant responses disagreeing with this proposal. One response was provided from an aerodrome that experiences snow conditions and requested whether there was a need to provide a runway condition report with depth of snow if the runway was closed. If an aerodrome operator is unable to provide an RCR for a 'standing water', 'slippery wet' or otherwise 'contaminated' runway then the option remains available to the aerodrome operator to close the runway.

Reporting of runways that are otherwise contaminated using the RCR

Fifty-eight percent (56%) of respondents agreed or agreed with changes to this proposal. Amongst the respondents that either agreed with changes or disagreed were comments requesting the GRF implementation be limited to scheduled Part 121 aeroplane operations or if requested by the pilot.

We will review the wording 'scheduled, otherwise anticipated, or ongoing' to reflect an aerodrome operator having advance notification from an aeroplane operator in order to be able to prepare for a runway surface condition inspection and report, if required. This was the intention with the current wording.

RCR format for runways that are otherwise contaminated

Seventy-two percent (72%) of respondents agreed or agreed with changes to this proposal.

Reporting of contaminated runways to ATC, NOTAM Office or pilots

Sixty-four percent (64%) of respondents agreed or agreed with changes to this proposal. Many of the respondents commented that the aerodrome reporting officer must hold an air radio operator certificate (AROC). Section 14.03 of the Part 139 MOS already requires that 'the operator of an airside vehicle operating on a runway strip, a runway, a taxiway strip or a taxiway must ... be certified under Part 64 of CASR'. Other responses included it wasn't always feasible to report to pilots and the ARO needs to be present on the aerodrome.

Otherwise 'contaminated' RCRs are required to be provided to ATC at controlled aerodromes.

'Standing water', 'slippery wet' and 'contaminated' runways require a NOTAM to be issued and these NOTAMs can be relayed to pilots by ATC as part of the FIS. In this way the hazard is communicated in an expeditious and efficient manner by personnel who are already trained to provide this information. 'Slippery wet' and 'contaminated' runways will only need to be reported to pilots by the aerodrome operator if UNICOM services or CA/GRS is available.

Aerodrome reporting officers to be trained to conduct runway surface condition inspections and reporting

Eighty-one percent (81%) of respondents agreed or agreed with changes to this proposal. There was significant agreement to this proposal and the responses were in relation to availability of training. Multi-Part AC 91-32 and AC 139-22 - Version 1.0 - Global reporting format – Runway surface condition, will provide substantial guidance on runway surface condition assessment and reporting as well as a training syllabus and also includes a reference to an online ICAO/ACI training course which is 3 hours in duration and costs \$US150. This ICAO training is not mandatory but may be a useful resource for many certified aerodromes. CASA will also provide a number of webinars to aerodrome operators as part of its transition communications strategy.

Aerodrome personnel to be competent (trained or experienced) to use continuous friction measuring devices

Seventy-eight percent (78%) of respondents agreed or agreed with changes to this proposal. There was significant agreement to this proposal and the responses were in relation to whether aerodrome operators needed to purchase and employ this equipment. Continuous friction measuring devices are not required for the GRF. This is a separate competency requirement for use of this equipment if it is already required i.e. at aerodromes with scheduled international air transport operations.

Aerodrome operator to ensure that remedial maintenance is undertaken as soon as possible if there is pooling, ponding or poor drainage of water on a runway

Eighty-three percent (83%) of respondents agreed or agreed with changes to this proposal. There was significant agreement to this proposal and the responses were in relation to old design and construction of runways that have led to pooling or ponding. While the Part 139 MOS requires runways to be designed so their transverse slopes do not allow ponding or pooling it is inevitable that this may be the case during construction and through wear and tear due to aeroplane operations.

It would be far too expensive to require aerodrome operators to resurface runways, however these inspection and maintenance requirements ensure an aerodrome operator reviews the status of their runway surface(s). Apart from fixing depressions, an aerodrome operator would be aware of the extent of standing water, and even depth, in order to issue a GRF NOTAM when the runway surface conditions would likely arise following rainfall. Additionally, if the 'standing water' was significant enough to warrant a NOTAM where there were aeroplane operations affected, if unable to issue a NOTAM the aerodrome operator could close the runway.

Miscellaneous Changes

Definition of runway starter extension

Eighty-three percent (83%) of respondents agreed or agreed with changes to this proposal and very few comments.

Chevrons must be a 'maximum' of 7.5 m from the side of the runway edge instead of a 'minimum'

Ninety-five percent (95%) of respondents agreed to this proposal.

CASA to approve a temporary visual approach slope indicator system (VASIS), without requiring a flight check, instead of an exemption

Ninety percent (90%) of respondents agreed or agreed with changes to this proposal and very few comments.

Aerodrome personnel to read back ATC clearances and instructions at controlled aerodromes

All (100%) respondents agreed or agreed with changes to this proposal, with few comments. One respondent commented there was no explicit requirement for aerodrome personnel to seek an ATC clearance when operating on the manoeuvring area and although this is implicit, the requirement will be added to the amendment instrument in the form of a clearance or instruction, or with an agreement in writing between the aerodrome operator and the ATS provider. Another respondent suggested that runway holding points and 'HLS' needed to be added to the clearances that need to be read back.

We agree that the Part 139 MOS lacks a suitable requirement for aerodrome personnel to have ATC permission to operate on the manoeuvring area of a controlled aerodrome. This aspect will be addressed in the final standards by including a relevant requirement.

Regarding the inclusion of 'HLS' in readback requirements, we do not believe it is necessary to specifically include 'HLS' in the list. Not all HLS on an aerodrome are located within the manoeuvring area, and thus are not appropriate to include HLS as a general readback requirement. Notwithstanding this, the proposed 14.06 (1) imposes a read back requirement for safety-related parts of any clearance or instruction to operate on the manoeuvring area. If a specific clearance identifies a particular HLS as an essential aspect of that clearance, it would be reasonable for ATC to require read back of the identifier of that HLS.

Documents for Review

There were a few comments reiterating the significant impact on regional and remote aerodromes. To note the association representing airports didn't agree with implementation for regional and remote aerodromes while the association representing airline pilots supported the new policy and accompanying guidance material. The association representing airports responded that the previous policy was a consultative and collaborative solution and the current policy is not practical for almost two thirds of the airport membership.

The NRSRG GRF Implementation Working Group, which included the AAA, met three times from August to September 2023 to review the new proposed policy. CASA reiterated on numerous occasions that it relied on input from stakeholders to determine the final policy. Particularly important was the input from the pilot organisations as they are the ones who need to advise when runway surface condition reports are required. The NRSRG working group unanimously agreed for the new policy to go to consultation. Additionally, CASA attended a meeting at the request of the AAA to discuss issues surrounding impacts on regional and remote aerodromes and the AAA thanked CASA for the meeting and clarifications.

Some comments referred to AC 91-02 which will be referred to the policy owners within CASA.

Any Additional Comments

The additional comments provided were aligned with other responses provided to the GRF implementation proposals:

- Regional and remote aerodrome staff availability and training.
- 24/7 monitoring and reporting of runway surface conditions.
- Should only be applicable to scheduled Part 121 operations into certified aerodromes.
- Lack of analytical safety data to support proposals.
- Need for RWYCC by aeroplane operators.
- Requirements for surface friction measuring devices.

Next Steps

Overall, respondents have supported the actual runway surface condition assessment and reporting format proposals, and the Part 91 MOS proposals.

However, there was significant exception to the perceived GRF scope, workload, complexity and cost of implementation. The airline pilots' association strongly supported all of the GRF implementation proposals, whereas the airports' association and aerodrome operators were concerned about:

- The 6- and 12-month transition periods.
- The wide applicability of GRF to all certified aerodromes.
- The applicability of GRF inspections and reporting whenever an aerodrome was open.
- The requirements for additional aerodrome personnel.
- The need for training of aerodrome personnel.

In response, the following changes are going to be implemented:

- We will review the wording 'scheduled, otherwise anticipated, or ongoing' to reflect an aerodrome operator having advance notification from an aeroplane operator e.g. airline schedule in order to be able to prepare for a runway surface condition inspection and report, if required.
- Aerodrome operators will not have to report 'wet' runways directly to pilots.
- Airservices Australia will be requested to include GRF NOTAMs in the provision of FIS and aerodrome operators will only be required to report 'standing water, 'slippery wet' or 'otherwise contaminated' runways to pilots if UNICOM or CA/GRS is provided.
- Retain the 6- and 12-month transition periods based on the changes to the proposals that will reduce impacts on regional and remote aerodromes.

The miscellaneous Part 139 MOS proposals were strongly supported and will be implemented (including the changes described in this summary).

As a result, CASA will now undertake to implement changes to the Part 91 MOS and Part 139 MOS amendment instruments, and Multi-Part AC 91-32 and AC 139-22 - Version 1.0 - Global reporting format – Runway surface condition, that reflect these proposals.

The amendment instruments and AC are planned to be available in early 2024.

Published Responses

[View submitted responses](#) where consent has been given to publish the response.