



# Canadian Implementation - Global Reporting Format / Takeoff and Landing Performance Assessment (GRF/TALPA)

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## AIM

- **To share the Transport Canada Civil Aviation (TCCA) perspective on the implementation of Global Reporting Format / Takeoff and Landing Performance Assessment (GRF/TALPA) for runway condition assessment and reporting.**
- **To discuss the steps that we've taken – and the steps that we will be taking – as a regulator, to work with our stakeholders.**
- **To share the lessons learned... so far.**





# Background: International Context (ICAO/FAA)

NOVEMBER 2020						
SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30					

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**Transport Canada and our stakeholders are striving to meet the ICAO implementation date for GRF.**



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# Background: Canadian Context

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## CHALLENGES

- **A single reporting system for Canada will need to address a wide variety of airports – from large international airports (CYYZ, CYUL, CYVR, etc.) to small airports with gravel runways.**
- **The system will need to address the needs of air operators that utilize TALPA-based performance information – as well as those that do not.**
- **Nav Canada software needs to be developed – with suitable business rules.**





# Implementation: Steps Taken

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## STEPS TAKEN

- **Communications**
  - **Meetings with industry stakeholders**
  - **Consultation on our guidance material**
- **Guidance Material:**
  - **Civil Aviation Safety Alerts**
  - **Advisory Circular**
- **Study**
  - **Correlated CRFI to RCAM RWYCCs – to allow airport operators to downgrade or upgrade RWYCCs**





# Implementation: Steps Taken

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## COMMUNICATION

- **Meetings with the Major Airport Associations in Canada**
- **GRF/TALPA Working Group Meetings with representatives of:**
  - **Airports, and**
  - **Air Operators**
- **TCCA – Discussions with stakeholders as we finalize the report format**
- ***Summer Winter Integrated Field Technologies (SWIFT) Conference and Trade Shows***





# Implementation: Steps Taken

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## SOFTWARE DEVELOPMENT

**We have an ongoing series of discussions with Nav Canada for their development of software which will work for:**

- **a wide variety of airports – from large international airports (CYYZ, CYUL, CYVR, etc.) to small airports with gravel runways – and everything in-between.**
- **airplanes using TALPA performance information – as well as those that do not**





# Implementation: Steps Taken

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## ADVISORY CIRCULAR

**TCCA has developed an Advisory Circular (AC) 300-000-XX – *Global Reporting Format for Runway Surface Condition Reporting.***

- **The purpose of this AC is to provide Canadian airport operators with the necessary information for the forthcoming implementation of GRF/TALPA.**
- **The draft AC was shared with stakeholders for their comments.**
- **This valuable feedback has been reviewed and we are currently making our the final revisions prior to publication – which is expected in the near future.**







# Implementation: Steps Taken

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## ADVISORY CIRCULAR

- **As we move forward with finalizing the AC, we have considered the United States' methodology of reporting runway surface conditions – and have looked at the lessons that they've learned.**
- **We have open and direct communication with FAA and *Transport Aircraft Performance Planning (TAPP) Working Group.***





## Implementation: Steps Taken



- **TCCA's intent is to meet the important safety goals and intent of the Global Reporting Format.**
- **We have also made some enhancements.**



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## Implementation: Steps Taken

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- **One of the main enhancements is the ability to report two contaminants per runway third. The reporting of two contaminants:**
  - **allows pilots to more accurately determine the maximum allowable take-off weight – since the limiting contaminant is not the same for all airplanes; and**
  - **harmonizes the reporting in North America, since the US FICON also lists two contaminants.**
- **We will also continue to publish CRFI as tool for airport operators to upgrade or downgrade RWYCCs.**





# Implementation: Steps Taken

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## OTHER GUIDANCE INFORMATION

TCCA published two *Civil Aviation Safety Alerts (CASA)* to let stakeholders know about the implementation of GRF/TALPA:

1. ***CASA 2016-06 – United States Implementation of Takeoff and Landing Performance Assessment (TALPA)***
2. ***CASA 2018-08 – Operations with Aeroplanes Utilizing TALPA-Based Performance Information to Calculate Landing Distance***





# Implementation: Steps Taken

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## CASA 2018-08

- **TALPA-based performance information is already in use:**
  - **Large Transport category aircraft have been using this TALPA-based performance information for several years.**
  - **The transition to this TALPA-based performance information has required an adjustment.**





# Implementation: Steps Taken

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## LESSONS LEARNED...

- **The significant safety enhancements that are achieved by utilizing TALPA-based performance information also result in greater conservatism.**
- **The net result is that runway conditions that had, in the past, allowed operations – may not longer be acceptable to flight crews.**





# Implementation: Steps Taken

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## RESPONSE TO FEEDBACK FROM AIR OPERATORS...

- **As we move towards GRF/TALPA implementation, based on feedback from our air operators, we made some changes to the types of contamination that are reported – so that they would conform to the *Runway Condition Assessment Matrix* (RCAM).**

## LESSONS LEARNED...

- **This, in turn, led us to a reconsideration of how “snow drifts” would be reported.**





## Implementation: Next Steps

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- **NAV CANADA is updating their technology and software to meet the new TCCA requirements.**
- **A trial will be conducted at select airports during the winter of 2019/20 with concurrent reporting using both the existing SNOWiz software and the new Canadian GRF/TALPA software.**
- **Full implementation is anticipated by the target date of November 5, 2020.**







# Implementation: Next Steps

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## OTHER INITIATIVES

- **Braking Availability Tester (BAT)**
  - **TCCA – together with other partners – is involved with the testing of the BAT**
  - **Objective is to expand friction measurement to include a number of runway surface conditions that previously couldn't be measured (e.g. slush and wet snow)**





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**Thank you for your attention.**

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