

# Takeoff and Landing Performance Assessment (TALPA)

## Status Briefing – March 31, 2016

Presented to: Directorate General for Civil Aviation

By: Charles Enders

Date: March 31, 2016



Federal Aviation  
Administration



# TALPA History

- **Concepts**
- **Recommendations**
- **Implementation steps by LOBs**
- **RCAM integration**



# TALPA Concepts are to Standardize

- Methods for assessing runway conditions
- Reporting of braking action by pilots
- Reporting of runway conditions through airport operators, the NOTAM system, and ATC agencies
- Airplane performance data
- Before landing performance assessments
- Terms used in runway condition reports and performance data



# TALPA Status as of 3/21/16

- **TALPA Elements Available**
- **TALPA Full Implementation Date:**
  - **October 1, 2016**



# AFS Implementation Actions 2016

- **Documents Update and Publishing Dates**
  - AC 91-79A - Mitigating the risks of a runway overrun on landing, 9/17/2014  
Revised version in development to accommodate new BRAP Terms, RCAM
  - **Develop Testing Guidance**
    - For Aircrew Testing Standard- August, 2016

## Collaboration Needed with: ATO, NOTAM Office

- Coordinate guidance on new NOTAM format utilization
- **\*\*\*Field/Industry Outreach \*\*\***
  - Presentation to the annual SWIFT Conference 9/19/2016
  - Presentation to the International SNOW Symposium 4/23/2016
  - Presentation to A4A in coordination.
  - Presentation to NTSB in coordination.
  - Suggestions/requests from you on how FAA Public Affairs should proceed
    - Internal and External Communication Plan Development in progress



# Transport Standards Implementation Actions

- **Paul Giesman, ANM-111, Performance/Handling Qualities/Flight Test**
- **Published new Advisory Circulars**
  - AC-25-31: Takeoff Performance Data for Operations on Contaminated Runways – December 22, 2015
  - AC-25-32: Landing Performance Data for Time-of-Arrival Landing Performance Assessments – December 22, 2015
- **Industry Outreach**
  - Supporting EASA Rulemaking Task incorporating TALPA into EASA operating regulation possibly including recommendations of EASA CS-25 modifications
  - Supporting ICAO Friction Task Force including Airplane Performance sub-team which is incorporating TALPA into ICAO Standards and Recommendations (Annex 3, 6, 8,14,15)



# ARP Implementation Actions

- **Publish/update Advisory Circulars**
  - Winter Ops AC to include new TALPA & RCAM language
  - NOTAMs AC with contaminant reporting instructions
- **Develop Training**
  - For Airports' inspector cadre
  - For airport operators and other stakeholders
- **Collaborate with ATO NOTAM Office**
  - On system software changes to produce Rwy Condition Codes (RwyCC)
  - On a Beta test site for contaminant data input and output confirmation
- **Industry Outreach**
  - Partner with Airports' alphabet groups for TALPA implementation
  - Update international stakeholders at available conferences and forums



# Airport's Runway Condition Assessment Matrix (RCAM)

mm/dd/yy

DRAFT

AC 150/5200-30D

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**Table 5-2. Runway Condition Assessment Matrix (RCAM) (for Airport Operators' Use Only)**

Assessment Criteria		Downgrade Assessment Criteria		
Runway Condition Description	Code	Mu ( $\mu$ ) <sup>1</sup>	Vehicle Deceleration or Directional Control Observation	Pilot Reported Braking Action
• Dry	6		---	---
• Frost • Wet (Includes damp and 1/8 inch depth or less of water) <b>1/8 inch (3mm) depth or less of:</b> • Slush • Dry Snow • Wet Snow	5	40 or Higher	Braking deceleration is normal for the wheel braking effort applied AND directional control is normal.	Good
<b>-15°C and Colder outside air temperature:</b> • Compacted Snow	4	35	Braking deceleration OR directional control is between Good and Medium.	Good to Medium
• Slippery When Wet (wet runway) • Dry Snow or Wet Snow (Any depth) over Compacted Snow <b>Greater than 1/8 inch (3mm) depth of:</b> • Dry Snow • Wet Snow <b>Warmer than -15°C outside air temperature:</b> • Compacted Snow	3	10 30	Braking deceleration is noticeably reduced for the wheel braking effort applied OR directional control is noticeably reduced.	Medium
<b>Greater than 1/8 (3mm) inch depth of:</b> • Water • Slush	2	20	Braking deceleration OR directional control is between Medium and Poor.	Medium to Poor
• Ice <sup>2</sup>	1	20 or Lower	Braking deceleration is significantly reduced for the wheel braking effort applied OR directional control is significantly reduced.	Poor
• Wet Ice <sup>2</sup> • Slush over Ice • Water over Compacted Snow <sup>2</sup> • Dry Snow or Wet Snow over Ice <sup>2</sup>	0		Braking deceleration is minimal to non-existent for the wheel braking effort applied OR directional control is uncertain.	Nil

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<sup>1</sup> The correlation of the Mu ( $\mu$ ) values with runway conditions and condition codes in the Matrix are only approximate ranges for a generic friction measuring device and are intended to be used only to downgrade a runway condition code. Airport operators should use their best judgment when using friction measuring devices for downgrade assessments, including their experience with the specific measuring devices used.

<sup>2</sup> In some circumstances, these runway surface conditions may not be as slippery as the runway condition code assigned by the Matrix. The airport operator may issue a higher runway condition code (but no higher than code 3) for each third of the runway if





# NOTAMS and TALPA

- US NOTAM Policy and Operations
- We have replaced Section 5-1-4 of the 7930.2Q with the new TALPA FICON rules
- The examples have been placed in the Appendix along with all other examples
- That will be published in the 7930.2R



# Notice to Airmen (NOTAM) TALPA Updates: Policy

- **FAAO 7930.2, *NOTAMs*, being updated to encompass TALPA initiatives**
  - Final document for publication by May 27, 2016.
  - Effective October 1, 2016 (TALPA Effective Date).





# Federal NOTAM System (FNS) TALPA Updates: Schedule



TALPA requirements and scenario documentation updates

- Completed and approved December 2015



Development

- In progress, prototype/demo application will be completed by March 31, 2016



User acceptance testing (UAT)

- UAT Internal planned for April 12-14, 2016.
- UAT External planned for April 25 to May 6, 2016



Release to production

- Scheduled for October 1, 2016 (to coincide with policy)



# ATC Orders and TALPA

- **Documents Update and Publishing Dates**

- FAA Order JO 7110.65 – Air Traffic Control
- FAA Order JO 7210.3 – Facility Operation and Administration
- FAA Order JO 7110.10 – Flight Services
- Aeronautical Information Manual (AIM)
- Aeronautical Information Publication (AIP) ICAO
- Pilot/Controller Glossary
- **Information ready for use by August 2016 (through FAA notice)**
- **Publishing Dates – November 10, 2016**

- **Develop Training and Training Guidance**

- AJV-82 (Terminal Standards and Procedures) and AJT-2 (Air Traffic Services) will collaborate with Technical Training to ensure current training is updated or new training is created



# ATC Orders and TALPA

- **Collaboration Needed with:**

- All FAA Order changes are distributed to field facilities for a 45-day comment period. As part of the approved document change process, NATCA must be contacted prior to publication.

- **Field / Industry Outreach**

- A Communications/Outreach plan to internal FAA personnel is being developed, coordinated with and followed by external communication/outreach to the aviation community.



# Summary – Chuck Enders

- **All TALPA Actions Planned Effective Date: October 1, 2016**
- **TALPA POCs:**
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# QUESTIONS ?



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