



**Agenda Item 4: Follow up to the implementation of safety and air navigation regional priorities**

**FAA'S TAKE-OFF AND LANDING PERFORMANCE ASSESSMENT (TALPA)**

(Presented by the United States)

<b>SUMMARY</b>	
The U.S. Federal Aviation Administration (FAA) has developed an initiative for airlines, airport operators, pilots, air traffic controllers and aircraft manufacturers to help create new procedures aimed at mitigating overrun risks.	
<b>REFERENCE</b>	
• FAA Safety Alert for Operators (SAFO) 16009, 08/15/2016	
<b>ICAO Strategic Objectives:</b>	<i>A - Safety</i> <i>B - Air Navigation Capacity and Efficiency</i>

**1. Introduction**

1.1 The FAA has identified improvements for safety in the area of runway overruns. Using input from relevant stakeholders, the Take-off and Landing Performance Assessment (TALPA) tools and resources provide a platform to enable sharing of data that can be used to mitigate runway overruns caused by changes in runway conditions.

**2. Discussion**

2.1 The FAA-developed TALPA aims to reduce the risk of runway overruns by providing airport operators with a method to accurately and consistently determine the runway condition when a paved runway is not dry. This information will enable airplane operators, pilots, and flight planners to determine the distance required to stop on a wet or contaminated paved runway in a more accurate way.

2.2 Federally obligated airports began using TALPA procedures to conduct runway assessments and to report those conditions in newly formatted Field Condition (FICON) Notices to Airmen (NOTAMs) starting in October 2016.

2.3 TALPA will allow pilots and flight planners to use standardized information, along with manufacturer's aircraft-specific data, to determine the runway length needed to safely stop an aircraft after a rejected take-off or a landing.

2.4 The concept of TALPA is simple and straightforward. However, it's implementation is fairly complex. Funding was always an issue. Preparation and lead time took several years including training for its employees to successfully implement the program. If a state wishes to have TALPA in use by December 2020, the FAA recommends that they start now to develop TALPA procedures including all hardware and software coordination between the internal stakeholders.

2.5 The TALPA ARC was formed in 2007 to find ways for the FAA to address the problems with runway overruns. The TALPA ARC initiative was well represented consistent participation by operators, airports, manufacturers, and domestic and international regulators. The TALPA ARC conducted regular meetings for a period of about 2 years.

2.6 The TALPA ARC indicated there was a need to communicate accurate runway conditions to pilots, and not only communicate information, but communicate information that is more meaningful and related to aircraft performance. The ARC had a significant number of recommendations on various topics related to aircraft performance and surface condition assessment and reporting which included: 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/departing performance assessments; and standardized condition reports terms.

2.7 A key result of the ARC's work was the development of the Runway Condition Assessment Matrix (RCAM). The RCAM ties runway contaminant types and depths to aircraft performance and into a functional tool for both aircraft operators and you the airport operators. This matrix is what airports will use to conduct assessments for paved runways only and is used for reporting purposes as well. Pilot will use the information being reported and enter that information into their flight computers in a format to be able to conduct pre-landing and pre-departure assessments. The matrix was tested and the runway contaminant types and depths to aircraft performance relationships were validated.

2.8 Another significant improvement was the and use of the NOTAM system to enter information by airports and pull information by airline, dispatcher or flight planning office through an Expanded NOTAM System for filing Field Condition (FICON). Since October 2016, the NOTAM system began serving as the primary system for disseminating field condition information.

2.9 Other results from the recommendations include standardized terminology, reporting methods, and a reportable contaminant list. These and other relevant regulations, guidance and resources have been placed on the FAA's TALPA website: <https://www.faa.gov/about/initiatives/talpa/>

### 3. **Conclusion**

3.1 The FAA has identified improvements for safety in the area of runway overruns. Using input from relevant stakeholders, TALPA tools and resources provide a platform to enable sharing of data that can be used to mitigate runway overruns caused by changes in runway conditions.

3.2 Member States interested in assessing and addressing potential safety risks may use this information on TALPA as a resource in improving their safety overrun risks.

### 4. **Suggested action**

4.1 The Meeting is invited to take note of the information provided.