

International Civil Aviation Organization**ICAO****The First Meeting of Air Traffic Management Automation System Task Force of APANPIRG (ATMAS TF/1)**

Web-conference, 28 – 30 October 2020

Agenda Item 5: Issues and Challenges in implementation

5.4 HMI operational enhancements

PREPARATION OF TAILORED MET–ATM IMPLEMENTATION IN INDONESIA

(Presented by Indonesia)

SUMMARY

This paper presents meteorological information services tailored to the needs of ATM operation provided by BMKG (Indonesia).

1. INTRODUCTION

- 1.1 The development in meteorological information services for aviation aims to support effective and efficient air traffic management services. Weather condition plays a great role in regards with capacity at the aerodrome and in the air space, thus impact-based meteorological forecast is required to ease the users to understand the information particularly in determining decision and plans of aviation operation.
- 1.2 BMKG has been participating, in terms of its role as meteorological service provider, in National ATFM Task Force involving all aviation stakeholders established by DGCA Indonesia. In the implementation of ATFM, all the relevant stakeholders will be involved in collaborative decision making (CDM) process which aims to determine the flight operation.

2. DISCUSSION

- 2.1 ATM-MET Integration system shows graphical information of meteorological forecasts in the air space, i.e. Flight Information Regions (FIRs), Upper Control Areas (UTAs), Flight Service Sectors (FSSs), Control Areas (CTAs) and Terminal Control Areas (TMAs) of Indonesian region.
- 2.2 Three Indonesian airports with the most frequent movement are Soekarno-Hatta Jakarta airport (WIII), Juanda Surabaya (WARR) and I Gusti Ngurah Rai Denpasar (WADD).

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Besides the importance of meteorological information in the aerodromes, weather forecast information in the air space surrounding the airport is also essential.

- 2.3 Impact-based weather information for the ground area is displayed according to aerodrome forecast and warnings, as well as for the holding area surround the airport.
- 2.4 Forecast information in Holding Area consists of forecast information of some parameters which include temperature, wind direction and speed, and forecast of Cumulonimbus development in 6 hours ahead.
- 2.5 Categorization of impact-based is determined according to the weather condition which will affect the reduction of capacity both of the airport and the air space managed by air navigation service provider. The categorization has been made based on mutual-understanding between meteorological service providers and ANSPs in each airport.
- 2.6 ATM-MET integration system developed by BMKG, where the application has not been used operationally, because it is still a prototype that is still being tested for its capabilities, currently development is still underway for a trial next year.

3. ACTION BY THE MEETING

- 3.1 The meeting is invited to provide input on matters that need to be developed in meteorological services and information tailored to the needs of flight operations in Indonesia.
- 3.2 Note the information contained in this paper.

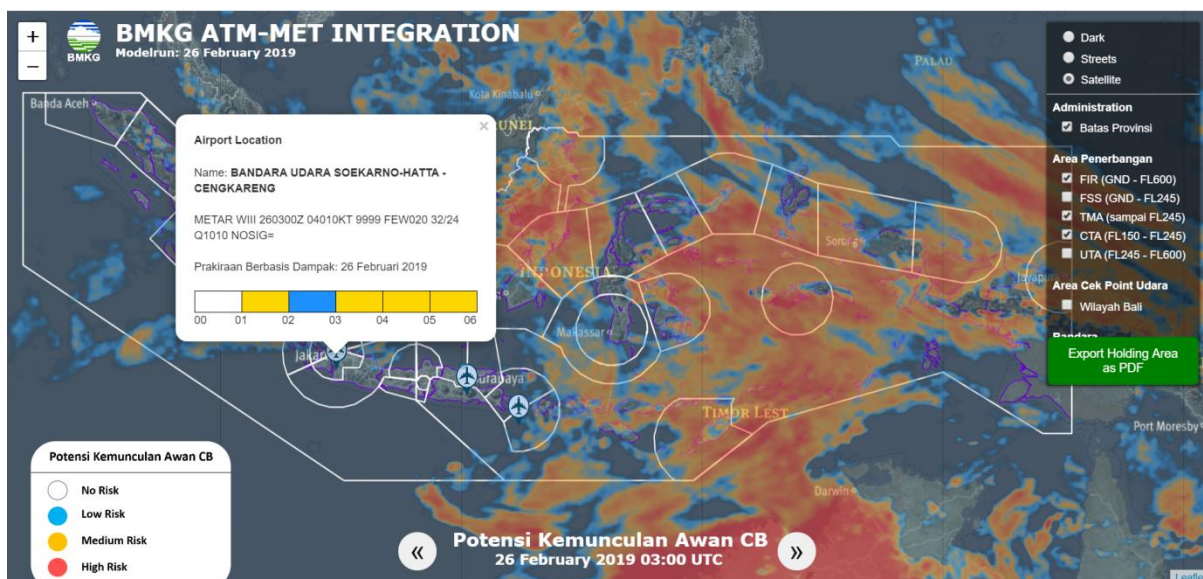


Figure 1. A map showing the system of ATM-MET integration with the impact-based forecast at the airports

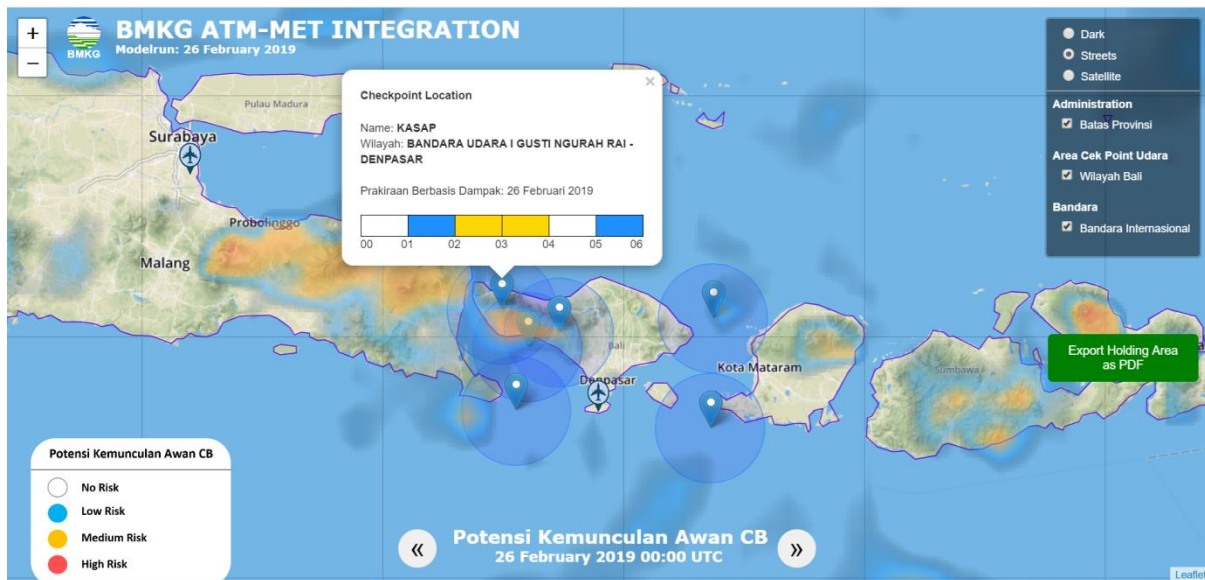


Figure 2. A display of impact-based forecast in the Holding Area