International Civil Aviation Organization

INFORMATION PAPER

Twenty-fifth Meeting of the Meteorology Sub-group (MET SG/25)

Online, 18 – 22 October 2021

Agenda Item 8: Any other business

REAL TIME THUNDERSTORM NOTIFICATION SERVICE WITH MOBILE APP

(Presented by the Republic of Korea)

SUMMARY

This paper outlines the real time thunderstorm notification service provided by AMO for the safety of airport workers.

1. INTRODUCTION

1.1 The Aviation Meteorological Office (AMO) of the Republic of Korea provides 13 airports in the Republic of Korea with real-time notification service for thunderstorm observations within a certain radius of the airports.

1.2 This paper describes the real-time thunderstorm notification service in detail.

2. DISCUSSION

Background

2.1 AMO provides weather information in accordance with the IATA thunderstorm risk rating response procedure to help airport operators and airlines make decisions on suspension and initiation of their work and operation, as well as contributing to the prevention of accidents caused by thunderstorm.

Service Development

2.2 This service began to be developed in January 2020 and was officially in operation since October of the same year.

2.3 AMO implemented an algorithm that calculates real-time thunderstorm distances during the thunderstorm observation around the airports and automatically generates notification content when it meets the notification criteria.

2.4 The notification system was developed to automatically transmit notification content via push notifications of AMO Mobile App.

Provision Scope

2.5 The service provides real-time thunderstorm information of a total of 13 airports.

Methods

2.6 The AMO Mobile App provides information on the airport selected by a user via its real-time push notifications.

2.7 Notification information is transmitted when a thunderstorm strike is first observed, and observational statistics for each airport are transmitted every 15 minutes. Notification of thunderstorm termination will be sent 15 minutes after the last thunderstorm is observed.

Users

2.8 Users can download and use the Mobile App free of charge. Anyone wishing to receive thunderstorm information can apply for this service without a membership. Airport operators such as airport operators and airlines are the main users of the service.

Notification Criteria

Grade	**Notification Criteria**
Caution	First observation within a radius of 8 to 16 km from the airport
	Observation statistics for 15 minutes within a radius of 8 to 16 km from the airport
Alert	First observation within a 8 km radius of the airport
	Observation statistics for 15 minutes within a radius of 8 km from the airport
Severe	First observation within a 5 km radius of the airport
	Observation statistics for 15 minutes within a radius of 5 km from the airports
Clear	Not observed for 15 minutes at Caution/Alert/Severe grade

Effects

2.9 Since the launch of this service, there have been no cases of thunderstorm-caused accidents involving ground operators. The service allows airport operators such as the Korea Airport Corporation and airlines to check in advance if thunderstorm would affect the airports, enabling them to secure evacuation time for thunderstorm.

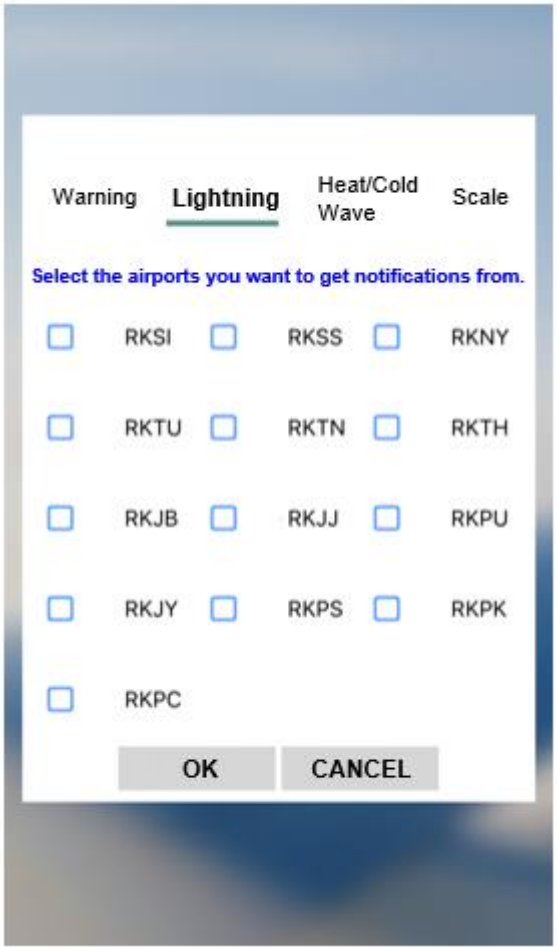

Figure 1. Application form

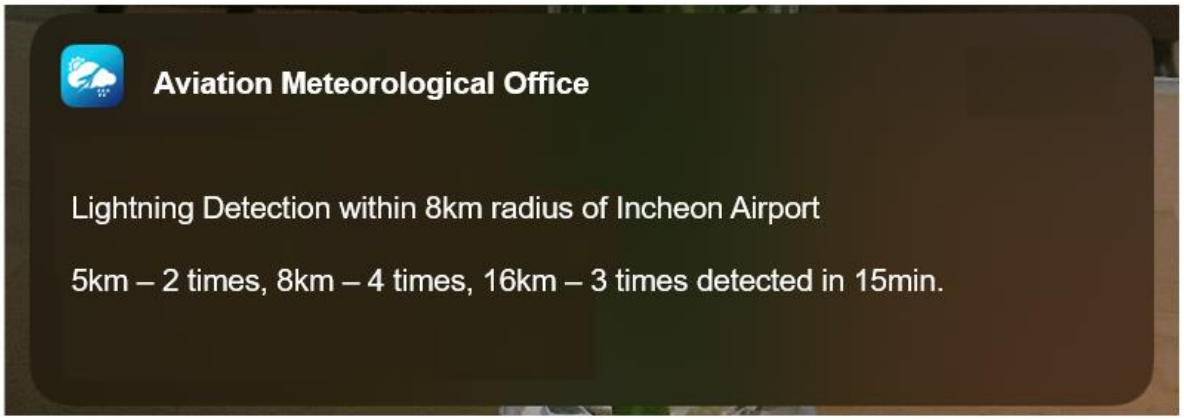

Figure 2. Notification example

3. ACTION BY THE MEETING

3.1 Note the information contained in this paper.

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