Localized Aviation Model Output Statistics (MOS) Program (LAMP) Onset/Cessation of Flight Categories (FC) AWDE User Assessment

Presented to: FPAW

By: AWDE Services Team

Date: November 2023

Federal Aviation Administration

Introduction

This research is in response to requirements and funding by the Federal Aviation Administration (FAA). The views expressed are those of the authors and do not necessarily represent the official policy or position of the FAA.

Introduction

- The Aviation Weather Division (AWD), is funding research to refine the Localized Aviation Model Output Statistics (MOS) Program (LAMP) capability to address Traffic Flow Managers (TFM) need for the onset and cessation of flight categories.
- The National Oceanic and Atmospheric Administration's (NOAA) Meteorological Development Laboratory (MDL) developed a text-based product and graphic.
- The text and graphic solutions were developed and integrated into a website hosted by the Aviation Weather Center (AWC) Testbed.
- The text-based solution is similar to the currently used LAMP bulletin and the graphic solution provides a visual display presenting flight category (FC) information.

Introduction

- Prior to further development, there is a need to determine if the text and graphic solutions meet the FAA functional requirements by determining if the solutions are suitable for use, provide adequate information to determine the onset and cessation of the FCs, and to determine which type of users would benefit from using the information.

Objectives

This research is in response to requirements and funding by the Federal Aviation Administration (FAA). The views expressed are those of the authors and do not necessarily represent the official policy or position of the FAA.

Objectives

- Determine if the text and graphic solutions support decision making.
  - Determine if the text and graphic solutions have all the information necessary to support decision making.
  - Determine if the text and/or graphic solution are better suited to support decision making.
- Determine if the text and graphic solutions are easy to use.
  - Determine if information can be easily found.
  - Determine if information is easy to understand.

Text and Graphic Solutions

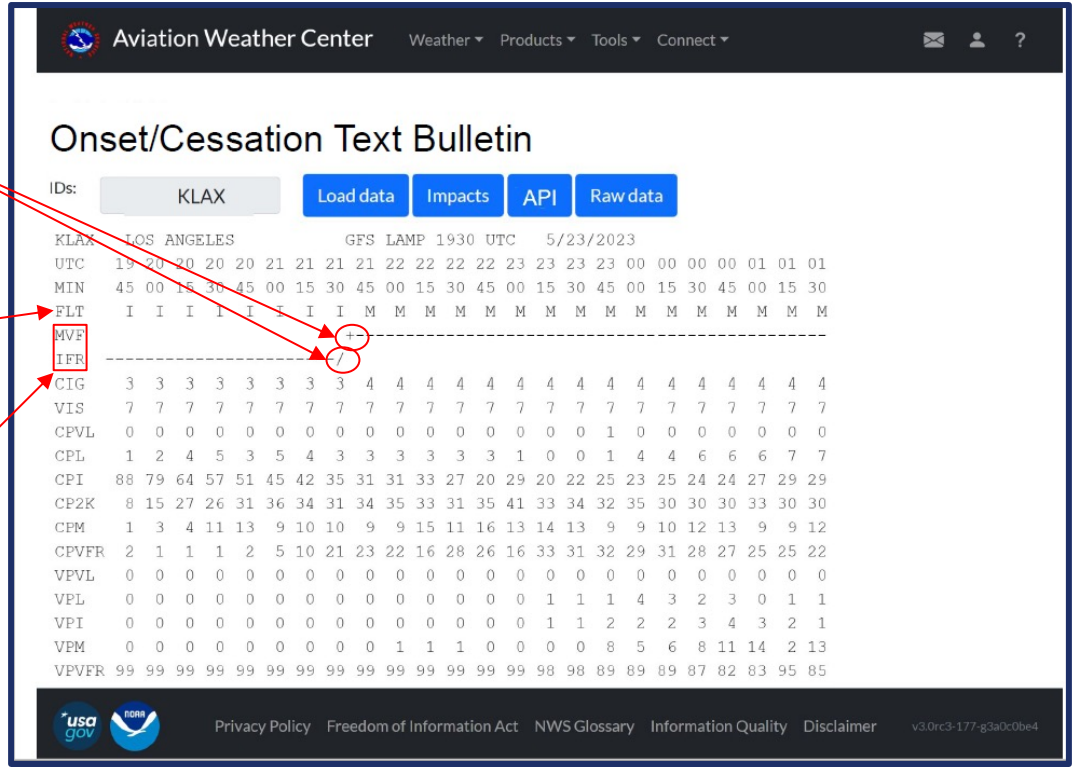
This research is in response to requirements and funding by the Federal Aviation Administration (FAA). The views expressed are those of the authors and do not necessarily represent the official policy or position of the FAA.

Text Bulletin

"+" = Onset
"/" = Cessation

VL = VLIFR
L = LIFR
I = IFR
M = MVFR
V = VFR

Flight Categories

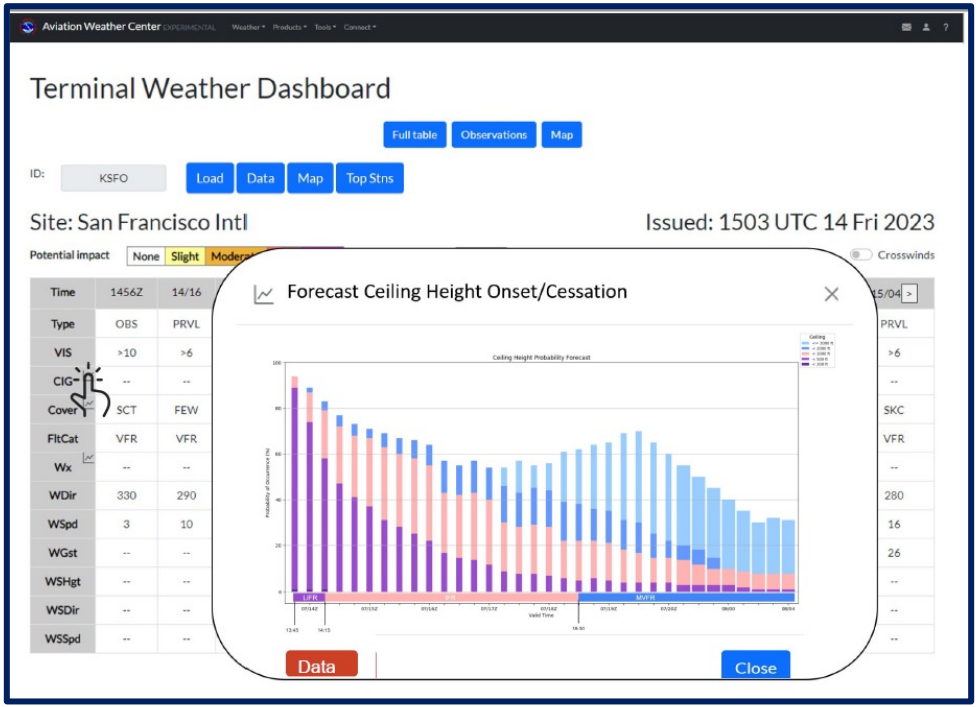


Probabilities???

Graphic

Y-axis - Probabilities

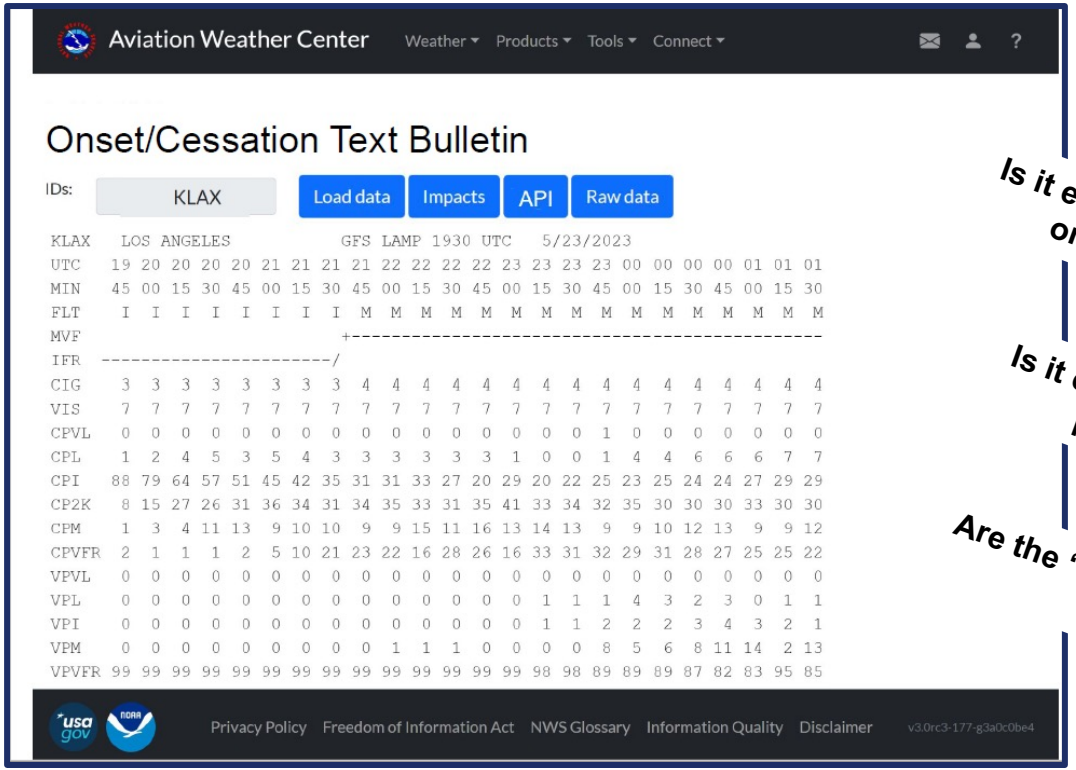
Ceiling Heights:
< 200 ft. – dark purple, < 500 ft. – purple
< 1,000 ft. – pink
< 2,000 ft. - dark blue,
< = 3,000 ft – light blue



X-axis - Onset/Cessation is displayed above the time stamps:
LIFR – purple
IFR – pink
MVFR – blue

Text Bulletin

Who has used or are aware of the LAMP Text Bulletin?



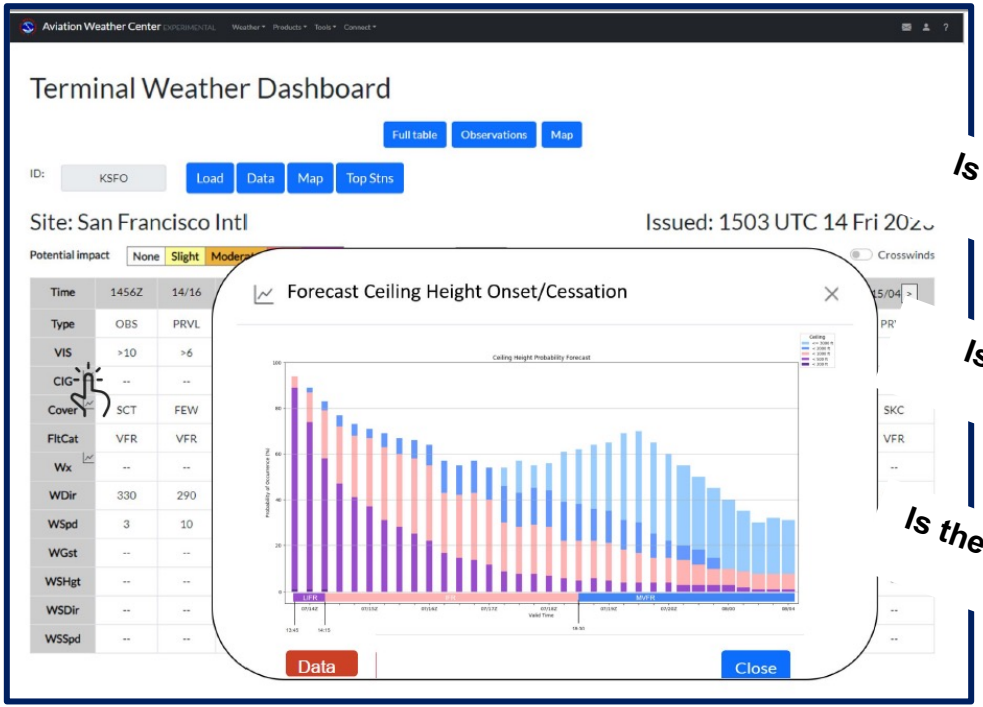
Is it easy to determine the onset/cessation?

Is it easy to interpret the probabilities?

Are the "+" "/" and "-" easy to interpret?

Does this product provide all the information you need related to low clouds and restricted visibility at the Core 30 airports? What improvements or additional information would you need?

Graphic



Is it easy to determine the onset/cessation?

Is it easy to interpret the probabilities?

Is the graphic solution easy to use?

Does this product provide all the information you need related to low clouds and restricted visibility at the Core 30 airports? What improvements or additional information would you need?

Questions

Do you prefer seeing probabilities text-based or depicted graphically using colors? Why?

Who are the users of onset/cessation of FC information and what is the best way to receive the information (website, ingested directly into systems)?

Do you prefer using the graphic or text to determine the onset and cessation times? Why?