

EMAS Depiction and Signage

EXECUTIVE SUMMARY

IFALPA emphasizes the need for adequate and standardized depiction of Engineered Materials Arresting System (EMAS) on aeronautical charts and airport signage. IFALPA recommends that the presence of EMAS be described in the Airport Operational Information (AOI), depicted on Instrument Approach Charts (IAC) and Take-Off and Landing Performance Tools. Standardized signs should be used at the runway end to indicate the presence of an EMAS.

INTRODUCTION

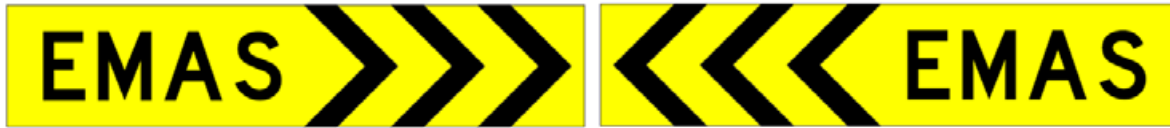
There have been several accidents where pilots have actively tried to avoid an EMAS, thereby exacerbating the situation. This is a clear indication of a lack of understanding and knowledge of EMAS. IFALPA encourages operators and States to make renewed efforts to improve the description and depiction of EMAS on charts, in take-off and landing performance applications, and airport signage in a standardized manner. Pilot awareness should be improved to identify which runways have EMAS and what procedures should be followed regarding EMAS in the event of an overrun.

EMAS IN TAKE-OFF AND LANDING PERFORMANCE TOOLS

In Take-Off and Landing Performance Tools, EMAS should be shown, e.g., near the runway designator or the stop-margin, if given. This will raise awareness of the existence of an EMAS at a point in the flight where the stopping performance of an aircraft is being considered and the use of the EMAS should be briefed. It is recommended that the word **EMAS** be included near the runway designator.

RUNWAY SIGNAGE

IFALPA recommends that standardized signs be placed at the end of the runway leading to an EMAS. While this is not an international standard, the FAA has developed conceptual EMAS information signs for runways. These signs inform pilots that EMAS is present at the end of a runway. The chevrons used are expected to lead pilots intuitively to engage the EMAS in the event of a runway overrun.



Such EMAS information signs should be located on both sides at the end of the runway before the EMAS.



The precise location may vary depending on the taxiway configuration in the vicinity of the runway end.

CHART DEPICTION

IFALPA calls for a standardized and distinct symbol for EMAS on aerodrome and approach charts. A distinct symbol is deemed necessary as different symbols are used already on the charts from different service providers. The recommended symbol is already used by chart manufacturers and deemed most appropriate. This avoids the introduction of a new symbol on charts and ensures the pilot community will be familiar with the symbol.

Why should EMAS be depicted on charts?

To enable a full briefing of emergency procedures involving the use of EMAS prior to departure or arrival, pilots need to be aware of its presence. This is best achieved via the charts and TOPAS.

What should be described and where?

IFALPA strongly recommends the description of an EMAS in airport operational information (AOI), instrument approach charts (IAC), and the Airport Ground Chart (AGC). AOI is regularly consulted for general flight preparation. Pilots use the IAC extensively to familiarize themselves with the approach and the subsequent runway.

However, when using the AGC, the pilot's primary focus is on taxiways and not on the departure end of runway where EMAS is found. Therefore, the practice of depiction of EMAS on the AGC only is insufficient. Providing the information on the AOI and IAC will enable enhanced situational awareness.

How should EMAS be depicted in the IAC?

Chart manufacturers Jeppesen and LIDO already have a symbol available for EMAS on their Airport Plan View or AGC. This symbol should also be included at the runway end on the IAC for those runways equipped with an EMAS. This will prompt crew to brief the use of the EMAS.