

EMAS R&D - Draft Reports

Office of Airports (ARP) EMAS R&D Tasks

1. Considerations to Educate Pilots on EMAS

- Objective - compile current information and guidance provided by the FAA and industry that educates pilots about the presence and purpose of EMAS and make recommendations regarding improvements.

2. Common Inspection, Maintenance, and Record Keeping Practices for Maintaining EMAS

- Objective - identify a set of common practices for the inspection, maintenance, and record-keeping of EMAS.



Considerations to Educate Pilots on EMAS

Generalization of Findings

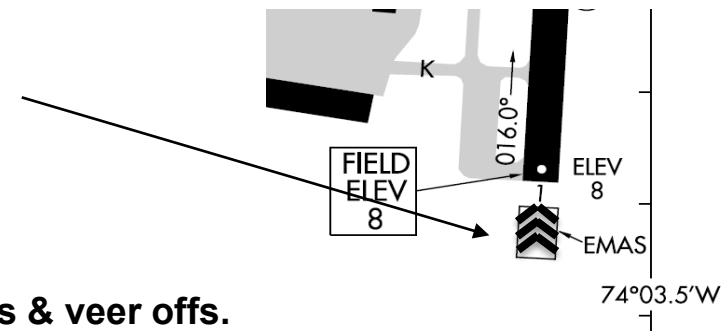
- 2012 FAA Pilot Survey indicated that pilots are familiar with the purpose of EMAS.
- Pilots unlikely to learn about EMAS by diagrams or operating on an airport.
- Pilots must learn through training or other informational venues.
- FAA Pilot Handbook of Aeronautical Knowledge is the single most comprehensive FAA document that explains both the availability and purpose of EMAS.
- FAA and industry group websites provide an opportunity to reach out to the entire spectrum of pilots and inform or remind them about the presence and purpose of EMAS.
- A review of numerous A/FDs reveals that they do not contain EMAS dimensions as required by AC 150/5220-22B.
- Knowledge of the availability or purpose of EMAS does not guarantee that a pilot will recall that information during an emergency overrun situation and steer into the EMAS.



Considerations to Educate Pilots on EMAS

Generalization of Recommendations

- Revise, update, information, references on EMAS.
- FAA & Industry outreach efforts.
- Additional Training to include EMAS.
- Pilot reminders/discussion on field or landing/takeoff.
- Revise and enhance FAA EMAS Fact Sheet website. Centralized information such as FAA POCs, information, guidance, training information, R&D reports, references/links to social media information, etc. Similar to FAA ARFF Website.
- Modify airport diagrams to include chevrons in EMAS box.
- Continue EMAS signage simulations.
- Defined reporting/data collection process of EMAS overruns & veer offs.



Common Inspection, Maintenance, and Record Keeping Practices for Maintaining EMAS

Generalization of Findings & Recommendations

- **EMAS OEM I&M manuals meet FAA AC requirements and provide important information to the airport operator on how to maintain and document EMAS!**
 - When in doubt, call OEM!
- **Strict EMAS OEM products and methods should be used, otherwise void warranty/arresting capability.**
 - Airport have expressed constraints & costs.
 - Field strength test reports provide the only documented and quantitative evidence of arresting performance.
- **Newer generation EMAS blocks require significantly less maintenance compared to 1st generation.**
- **FAA Still learning I&M from RunwaySafe greenEMAS at MDW.**
 - Some issues with delaminating of top coating/paint.
- **Difficult & Time Consuming to inspect and maintain EMAS in airport environment.**
 - Some airports paint column/row numbers on blocks to provide sense of their location on the EMAS bed.
 - Possible use of RFID for block ID and inspection.
- **Include EMAS into Pavement Management Program (PMP) to manage asset, costs, & time.**
 - Standardize inspection logs, repairs, costs for life of EMAS for asset management and planned replacement.

