

**59th CONFERENCE OF
DIRECTORS GENERAL OF CIVIL AVIATION
ASIA AND PACIFIC REGIONS**

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AGENDA ITEM 4: AIR NAVIGATION

**ENHANCING AVIATION SAFETY: THE ROLE OF THE
MALAYSIAN ELECTRONIC TERRAIN AND OBSTACLE
DATA (ETOD) PLATFORM**

(Presented by Malaysia)

INFORMATION PAPER

SUMMARY

This paper describes the Malaysian Electronic Terrain and Obstacle Data (eTOD), an online platform managed by the Civil Aviation Authority of Malaysia that provides essential electronic terrain and obstacle data for enhancing aviation safety. The website offers accurate, updated data for 21 airports in Malaysia, supporting flight planning and navigation, interoperable with other systems while complying with international standards, making it a valuable tool for safety and efficiency for all aviation stakeholders.

ENHANCING AVIATION SAFETY: THE ROLE OF THE MALAYSIAN ELECTRONIC TERRAIN AND OBSTACLE DATA (ETOD) PLATFORM

1. INTRODUCTION

1.1 The Malaysian Electronic Terrain and Obstacle Data (Malaysian eTOD) website, <https://etodstore.caam.gov.my>, is an online platform recently introduced in the Malaysian environment and managed by the Civil Aviation Authority of Malaysia.

1.2 The website contains critical resources for aviation stakeholders who require accurate and up-to-date terrain and obstacle data. It is designed to support safe and efficient flight operations by providing essential data used in various aspects of aviation, including flight planning, navigation, and safety management.

2. DISCUSSION

Purpose of the eTOD Website

2.1 The primary purpose of the Malaysian eTOD website is to serve as a centralised platform for disseminating electronic terrain and obstacle data. It is a hub where users can browse and download a wide range of electronic terrain and obstacle data products.

2.2 These data, which are crucial for ensuring the safety and efficiency of aviation operations, particularly in terms of flight navigation and obstacle avoidance, can be downloaded through a dedicated marketplace section designed to facilitate the distribution and acquisition of various aviation data products.

2.3 The Malaysian eTOD website primarily targets aviation stakeholders, including flight procedures designers (FPD), pilots, air traffic controllers, flight planners, and safety officers. Researchers and other stakeholders in the aviation industry may also find the data useful for various analytical and operational purposes.

2.4 The Malaysian eTOD website is also integral to FPDs to design flight paths that avoid hazardous areas and ensure safe operations. The availability of accurate and timely data from the Malaysian eTOD website will help reduce the likelihood of accidents and incidents related to terrain and obstacle collisions, contributing to the overall safety and efficiency of the aviation industry.

Key Features and Capability of the Malaysian eTOD Website

2.5 The Malaysian eTOD website offers several key features and services designed to meet the needs of its aviation stakeholders:

- **Types of Data Available:** The website provides detailed terrain and obstacle data essential for aviation safety. Terrain data includes information about the earth's surface features, while obstacle data encompasses natural and man-made obstacles that could pose hazards to aircraft in 21 airports in Malaysia;
- **Access and User Interface:** Users can access the eTOD data through a user-friendly interface that allows for efficient data retrieval and analysis. The website's layout facilitates easy navigation and access to the required data sets;
- **Resources and Services:** The Malaysian eTOD website offers various resources, including data downloads in multiple formats (AIXM, KMZ, CAD, SHP) that are compatible with different aviation systems. This ensures that users can utilise the data according to their specific needs and technological capabilities;

- **Technological Integration:** The Malaysian eTOD system is designed to integrate seamlessly with other aviation data systems, allowing for comprehensive data analysis and usage. This integration capability enhances situational awareness and decision-making in flight operations;
- **Data Accuracy and Updates:** The website provides highly accurate terrain and obstacle data updated until July 2023 to reflect the changes in the aviation environment. This feature ensures users access to the most updated information, which is crucial to upholding stringent aviation safety standards;
- **Compliance with International Standards:** The data provided on the Malaysian eTOD website complies with the international standards set by the ICAO, ensuring its reliability and usability in providing comprehensive, high-quality data that aids in preventing accidents and incidents related to terrain and obstacles;
- **Access to Pre-Flight Information Bulletin (PIB):** The website contains crucial components of the flight planning process. It provides pilots and flight planners with up-to-date information on various factors that could impact a flight, presented in a user-friendly format, making it simple for them to quickly find the information they need. The PIB includes various data, such as airspace restrictions and other NOTAMs (Notice to Airmen) messages.

CONCLUSION

2.6 In conclusion, the Malaysian eTOD website managed by the Civil Aviation Authority of Malaysia is a crucial resource for the aviation community. The website supports safe and efficient flight operations by offering comprehensive up-to-date terrain and obstacle data; and a pre-flight information bulletin. The capabilities of the eTOD system, including its integration with other data systems and compliance with international standards, make it a valuable tool for aviation stakeholders worldwide.

3. ACTION BY THE CONFERENCE

3.1 The Conference is invited to note the information contained in this Paper.

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