

**61ST CONFERENCE OF
DIRECTORS GENERAL OF CIVIL AVIATION
ASIA AND PACIFIC REGION**

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**AGENDA ITEM 8: CAPACITY DEVELOPMENT
AND IMPLEMENTATION**

**REPORT ON THE ARTIFICIAL INTELLIGENCE (AI)
LITERACY AND GOVERNANCE OF THE THAI AVIATION
INDUSTRY LANDSCAPE**

(Presented by Thailand)

DISCUSSION PAPER

SUMMARY

This discussion paper presents the empirical findings of a comprehensive industry-wide assessment regarding the Artificial Intelligence (AI) Literacy of the Thai Aviation Industry Landscape. Utilizing a robust sample size of 1,004 technical and operational aviation professionals, the study maps the intersection of organic technology adoption, user trust, operational value, and information security exposure. The data highlights a significant bottom-up adoption curve, where workforces are leveraging AI tools to drive efficiency, contrasting sharply with a widespread institutional policy void. This report aims to provide global aviation leaders with baseline metrics to evaluate their own institutional readiness and navigate the evolving legal and technical landscapes of AI.

REPORT ON THE ARTIFICIAL INTELLIGENCE (AI) LITERACY AND GOVERNANCE OF THE THAI AVIATION INDUSTRY LANDSCAPE

1. INTRODUCTION

1.1 Acknowledging the unprecedented velocity of AI capabilities, this report outlines the baseline assessment of AI literacy, operational application, and data governance across the Thai aviation industry. The questionnaire was designed by the Civil Aviation Authority of Thailand (CAAT) and was distributed throughout the aviation sector during February to May 2026 to directly compile data to ensure reach across Thailand's aviation industry landscape, encompassing a full sample size of 1,004 active aviation professionals.

1.2 The demographics of the evaluated workforce indicate a highly mature, digitally native cohort predominantly anchored by Generation Y, who represent 54% of the active landscape. Generation X forms the second-largest operational block at 33%, followed by early-career Generation Z professionals at 12%.

1.3 The structural reliability of the survey findings is supported by the deep domain expertise of the participants, with 55% of all surveyed professionals possessing more than 10 years of active operational experience within the aviation industry.

1.4 The analytical pool establishes a diverse cross-section of safety-critical roles, capturing responses from airport operators (24.5%), commercial air operators (23.5%), air navigation service providers (19.3%), organizations with general aviation (8.5%), maintenance organizations (7.6%), civil aviation regulators (6.3%), training organizations (4.5%), as well as aeronautical medical organizations and even UAS operators.

2. DISCUSSION

2.1 The result shows that high familiarity with AI has achieved deep penetration across the workforce, with 96% of the surveyed workforce having heard of AI and 87% of all surveyed personnel stating they clearly understand what AI is. Moreover, around half (47%) of the surveyed are actively following news about the developments in AI.

2.2 However, individual interests are leading organizational developments with only 62% of organizations having training or briefings regarding AI technology and its applications, with individuals using various AI tools but with the majority using free-tier public models of ChatGPT (82.5%), Gemini (66%), Copilot (37.15%).

2.3 Although the use of AI tools in the aviation workforce is various, but according to the survey, the frequent usage of AI tools to help with work tasks is still quite low with only around 27% using AI to help with tasks every day, 29% using AI weekly, and 16% utilizing AI monthly. Surprisingly, although familiarity and understanding of AI is high, around 28% have never used AI tools to help.

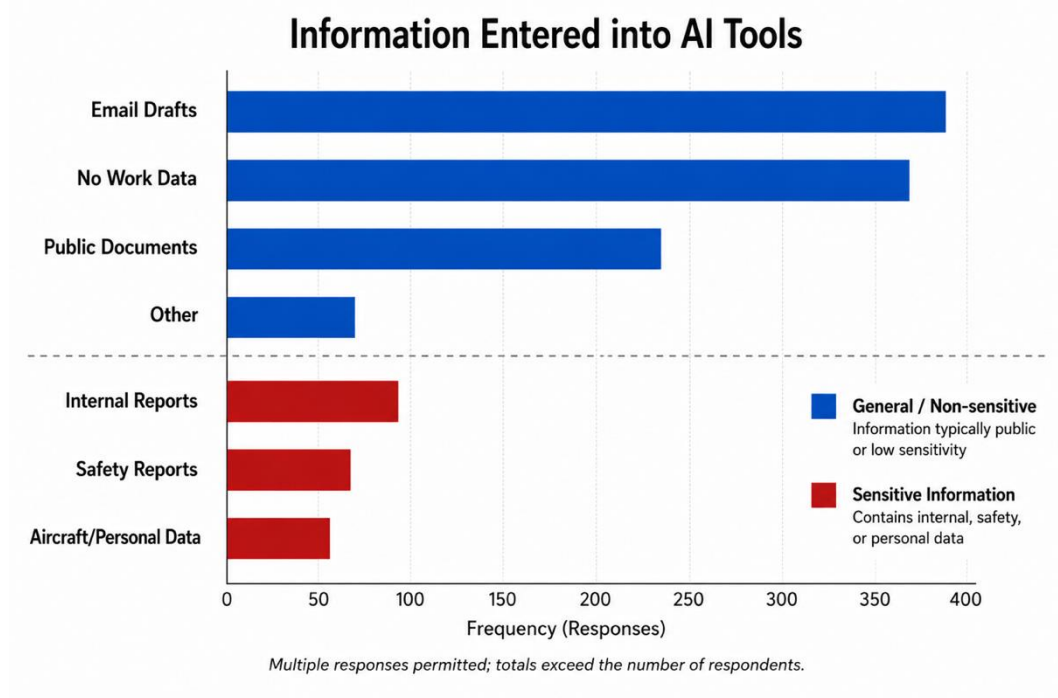
2.4 Through the numerous applications that AI could be used, 21% of the workforce uses the AI tools to summarize long manuals or regulations. 29% utilizes AI to translate technical terms or languages to improve understanding. The generation of routine corporate emails and formal reports have also had a shift with AI helping to aid around 20% of the workforce. Some have also used AI as a search engine and as coding agents aiding in software development and around 16% utilizes the AI's ability to calculate and analyzing flight or maintenance data.

Data privacy and AI trust

2.5 This highlights what could be improved in the data privacy awareness. The survey also asked looked deeper down into the input habits to inspect whether sensitive data were being submitted

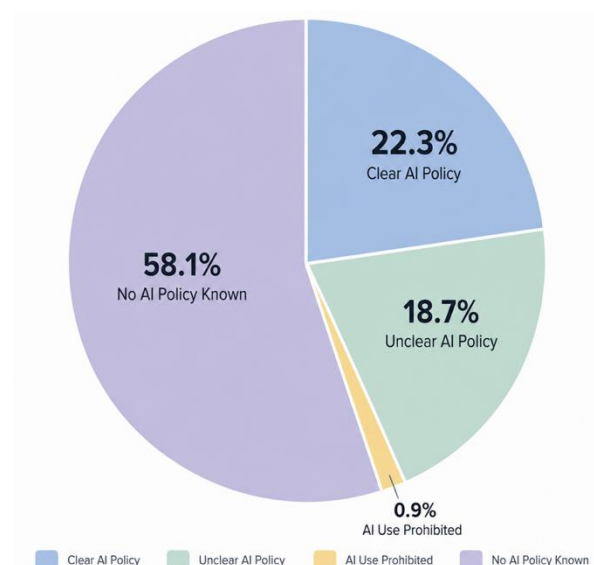
to AI to reach results. The questions were vague asking user about information have been entered into the system and whether there are any clear policies regarding AI in the user's respective organizations.

2.6 The results showed that most of the workforce understands the levels of sensitive data with 29% of users answering that they have never submitted any work-related information for AI to "learn" and some mentioned the process of de-identifying any sensitive information and explicitly mentioning any information that may be confidential or classified. However, around 8% still input internal company memos or reports, 6% having submitted safety reports, and incident logs and 5% having had entered specific aircraft data such as part issues, personnel/passenger information or surveillance data into the AI tools.



Picture 1: Bar graph representing the information being entered into AI tools

2.7 The percentage of those submitting sensitive data into AI was quite low, with some still submitting classified information which is a high-risk to technical data exposure but the majority having a high level of data privacy awareness, the result of such inputs could be due to lack of clear policies regarding AI. The growth of AI was so expedited that only 41.9% of the organizations partaking to the survey having policies regarding AI, with only around half of those organizations having policies clear and unambiguous enough for employees to understand. Moreover, 0.9% of the organizations of those surveyed implemented the very strict rule prohibiting the use of AI.



Picture 2: Pie graph representing respondent's organization's AI policy

2.8 Since the fundamental of AI tools are probabilistic models attempting to “guess” the next word based on “learnt knowledge” and additional prompts. The survey also tested the operational trust users have into answers or replies received from AI models. Alarming, a small but highly vulnerable amount of around 4% placing trust in AI completely without any validation, with 24% not placing any trusting AI for anything important.

AI Future Outlook

2.9 The workforce perception of AI and its applications were also addressed. Optimistic views from most of the workforce favors the use of AI with 86% believing that AI will make their specific jobs easier and more efficient, while 5% believe it will make work more stressful and complex. However, around 9% view that AI will probably make their specific job obsolete within the next 5 years.

2.10 The primary concerns from the use of AI arises from its known hallucinating answers and the rising threats from cybersecurity and hacking risks that have surfaced throughout the news, with approximately 25% of the workforce visioning these 2 as the primary concern regarding AI in regulation. Around 19% also fear the leak of internal information which are disclosed to AI which reflects the high awareness of data privacy in previous questions. With the emerging use of AI, some also fear (17%) that humans may lose basic skills, with 5% of the workforce concerned with the potential job displacement with AI taking the roles they are in position.

2.11 It was asked what the workforce think they would prefer AI to do in the future. Around 45% favors a bounded, collaborative role for automation with AI taking over repetitive tasks so they can focus on bigger and more critical decisions. However, around 51% still prefer that AI remain limited to a search utility, with 4% of the workforce still fearing the effects from AI and believe that it should be kept out of the aviation industry as much as possible.

2.12 A field for additional comments or recommendations were also available to those who partake in the survey and comments were made by the industry with requests that policy maker, whether it be the government or regulator, should push out guidance or policies to aid the industry on responsible AI usage with comments requesting that AI tools such as chatbots to help the industry address legal inquiries and technical issues as well.

Global Alignment and Technical Modernization

2.13 Currently there are no regulations regarding AI in Thailand's ecosystem yet. The Thai government has issued “Thailand AI Ethics Guideline” with recommendations for organizations and regulators to adapt and oversight on the applications of AI, but the Civil Aviation Authority of Thailand is in the process of drafting recommendations on AI applications and guidance on responsible AI with the above results to the aviation entities in Thailand.

2.14 From a global point of view, the European Union Aviation Safety Agency (EASA) have published the EASA Artificial Intelligence Roadmap 2.0 following the EU AI Act, which aim to harmonize the development and use of AI across the European Union. In the United States, the Federal Aviation Administration (FAA) have come up with the FAA AI Safety Assurance Roadmap to guide the development of AI safety assurance methods to safely integrate novel AI technologies in aviation.

2.15 As can be seen by the results of the survey on Thailand's aviation ecosystem, without unified guidance or regulations, there are risks that classified/highly sensitive information is being leaked into AI systems, therefore by having an integrated stance from ICAO, with recommendations or guidelines regarding responsible AI and its applications, member states would benefit from a unified guidance in helping to ensure robust data privacy both in terms of safety, security and clear pathways for the developments of future AI-integrated aviation technologies.

2.16 Furthermore, given the accelerating interest in incorporating AI into operational workflows, provisioning existing documentation and upcoming amendments in structured, machine-readable formats alongside traditional human-readable versions would help address contextual hallucinations and mitigate the risks of false information generated by AI and establish a secure foundation for industry-wide AI deployment in the aviation sector.

3. ACTION BY THE CONFERENCE

3.1 The Conference is invited to

- a) note the information contained in this paper;
- b) consider the need for ICAO guidance and the sharing of regional best practices to support the safe, secure, and responsible implementation of AI applications in aviation;
- c) discuss the shift towards machine-readable ICAO SARPs and documentation to support AI-driven aviation applications; and
- d) discuss any relevant matter as appropriate.

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