International Civil Aviation Organization

Thirteenth Meeting of the Air Traffic Management Sub-Group (ATM/SG/13) of APANPIRG

Singapore, 25 – 29 August 2025

Agenda Item 5:   **ATM Systems (Modernization, Seamless ATM, CNS, ATFM)**

IMPROVING THE EFFECTIVENESS OF PILOT – CONTROLLER COMMUNICATION BY COLLABORATION BETWEEN THE OPERATORS AND ANSPS

(Presented by IATA on behalf of IATA and China)

SUMMARY

This paper presents the proposals for effective pilot – controller communication, and the on-going cooperation program and its activities delivered by IATA and Air Traffic Management Bureau of CAAC (ATMB) in 2023-2024 to address the challenges on air/ground communication. In past few years, the two parties have carried out a series of activities and the operator survey to enhance the collaboration between international pilots and controllers in China.

IATA recommends the approach and solutions and calls for the collaboration between the operators and ANSPs to increase the effectiveness of air/ground communication in Asia/Pacific Region.

1.   INTRODUCTION

1.1   The pilot – controller communication (including English language issues with native/non-native speakers) has been identified as one of the safety issues and tracked and monitored by the IATA Safety Issue Hub (SIH): *Pilot – ATCO Communication issues due to non-native English speaker's language proficiency and native speaker's accent. It is amplified when non-standard nor approved phraseology is used, particularly in Abnormal/Emergency Situations.*

1.2   Meanwhile, a study of 28,000 incident and accident reports found that more than 70% involved problems with information transfer, primarily related to voice communications. This was one of the triggers for the introduction of the ICAO Language Proficiency Requirements in 2008 (Doc 9835). These English language standards apply to all pilots and controllers working internationally (both native and non-native English speakers).

1.3   The main challenges in communication with native speakers of English, identified via feedback from various stakeholders are:

      a)   speaking too quickly;

      b)   not sticking to Standard Phraseology;

      c)   insufficient pausing;

      d)   excessively long transmissions;

      e)   unclear accents; and

f)   impatience.

1.4   Mayflower College, UK has been studying the issue and has published a study of the role of native English speakers and presented this ATPG-SkyTalk Group report to EASA last year, which is an interesting read and highly recommended.

1.5   The Safety Risk Assessment (SRA) carried out by IATA:

Event	Hazards	Consequence (worst case scenario)	Existing Controls	Risk Rating	Mitigation Action
Pilot - ATCO communication	1. Risk of diminished English language skills and phraseology discipline 2. Potential reduction in pilot familiarity with procedures and related phraseology 3. Possible frequency congestion	Incident	• Hear back/read back • CRM • Surveillance and safety nets • Pilot threat and error management briefing	Tolerable (with existing control)	• Increased awareness via safety promotion • Additional sectors, where possible and based on staffing and traffic levels • Encourage controllers to break down clearance to digestible segments • Airlines and ANSP should conduct their own internal SRA. For airlines this applies to resuming operations on specific routes • Emphasize the use of standard phraseology

1.6   To address these issues and increase the collaboration between the pilots and controllers, since 2023, IATA and ATMB started the technical cooperation on Air/Ground communication in different operational scenarios, e.g., aircraft abnormal/emergency response procedures and the pilot/ATC phraseologies, ATM and flight operation during thunderstorms, flexible use of airspace, etc.

1.7   In August 2024, IATA and ATMB conducted an operator survey on ATM operation in China during thunderstorms. In September, a survey report with the findings from the airlines' feedback, as well as the insights and recommendations, was published to the industry and provided to CAAC for improvement.

1.8   To address the findings from the survey, later in November, the 2024 ATMB – IATA Workshop was held in Beijing, China and attended by international operators and controllers from all over China.

2.   DISCUSSION

Review Meeting of the Phraseologies in ATM Emergency Response Procedures

2.1   On 25 April 2023, the ATMB – IATA meeting was organized to review the phraseologies in ATM emergency response procedures and achieve efficient and effective communications between the foreign pilots and Chinese controllers, especially during the abnormal and emergency events.

2.2   The controllers from all the regional ATMBs, the subject matter experts (SMEs) from Civil Aviation University of China (CAUC), IATA and the pilots from 14 international airlines attended this meeting and provide the comments on the revision of the phraseologies, which was a new edition issued by ATMB and utilized by for all the controllers in China.

<u>Operator Survey on ATM Operation during Thunderstorms</u>

2.3   This survey was completed in August 2024 in the format of an operator questionnaire, which was published online and filled either in English or Chinese language. The respondents are flight crew, operation control and dispatch, safety, or management personnel of the international and Chinese domestic airlines.

2.4   The questionnaire was designed with 19 questions, including 13 choice questions, two ranking questions and four text questions. The content covers the respondents' work identity and background, flight operation risks and mitigation measures during thunderstorm season, satisfaction with air traffic service and ATC communications. The average completion time is 10-15 minutes.

2.5   The survey was conducted from 29 July to 30 August 2024. During this period, IATA has distributed and promoted the survey to its member airlines globally and relevant technical working groups, etc. As of 30 August 2024, a total of 465 valid responses were collected, among which, a few airlines have adopted the form of internally collecting feedback from flight and operation control departments and filling them out in a centralized manner.

2.6   Based on the feedback from the questionnaire, IATA and ATMB jointly reviewed the feedback and comments from operators, analyzed the survey data, and jointly published a survey report both in English and Chinese. The report includes the findings and data insights from each question, as well as the recommendations for improvement.

<u>2024 ATMB – IATA Workshop</u>

2.7   As one of the follow-up actions of the survey, an in-person workshop was delivered on 14-15 November 2024 at IATA Beijing Office. The workshop was attended by 83 participants, including 43 pilots or operational personnel from 28 international airlines, and 40 controllers from ATMB and all the regional ATM Centers in China.

2.8   The workshop was delivered in the following five sessions of "Dialog", which covered different operational topics and scenarios:

        a) Operation during Thunderstorms;

        b) Aircraft Emergency Response and Communications;

        c) Flexible Use of Airspace;

        d) Runway Safety and Ground Operations; and

        e) Operational Efficiency and Technology.

2.9   Each Dialog session was presented by the controllers from different division/region of ATMB and the pilots/SMEs from the airlines on the concerning topics, operational challenges and insights, ATC phraseologies, and followed by technical exchange and discussions.

2.10   After the workshop, the participants attended a technical visit to the ATM facilities in Beijing, China and more in-depth conversations were made on-site at the ATM Centers.

2.11   IATA and CAAC/ATMB planned to renew the memorandum of understanding (MOU) between the two parties on technical cooperation in 2025, aiming to strengthen the cooperation and collaboration between the international pilots and Chinese controllers on the operator survey and annual conversations, workshops, etc.

3.   ACTION BY THE MEETING

3.1   The meeting is invited to:

    a) note the information contained in this paper; and

    b) discuss any relevant matters as appropriate.

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