International Civil Aviation Organization

The Sixth Meeting of System Wide Information Management Task Force (SWIM TF/6)

Video Teleconference (VTC), 17 – 20 May 2022

Agenda Item 7: State, Regional and Global SWIM Updates

IATA AIRCRAFT EQUIPAGE AND CAPABILITY SURVEY – SWIM

(Presented by IATA)

SUMMARY

This paper presents preliminary analysis of airline responses to the SWIM section of IATA's Aircraft Equipage and Capability Survey for Asia-Pacific and North Asia conducted in Quarter 1 of 2022.

1. INTRODUCTION

1.1 In recent years there have been multiple queries about airline and fleet capabilities during ICAO meetings and other workshops dealing with CNS requirements and possible mandates, as well as other emerging concepts. Unfortunately, the most recent and complete information hasn't always been available, and we have needed to conduct many smaller ad-hoc surveys to meet action items.

1.2 Understanding that a lot has and is still changing throughout and post-COVID, it was identified as an opportune time to conduct a broad and detailed survey in order to build a detailed baseline database for operators in our region.

1.3 As our industry is still in recovery mode from COVID-19, the IATA Aircraft Equipage and Capability Survey asked member and non-member airlines for responses that projected forward in a window of where airlines and fleet capabilities will be by the end of the 2022 calendar year.

2. DISCUSSION

The Survey

2.1 The survey specifically asked for aircraft fleet capabilities and operating approvals in the domains of PBCS, PBN, GNSS Augmentations, Mode S and SWIM. The airlines were asked to provide indications on future intentions where current capabilities were planned to be enhanced.

2.2 The survey also asked for information on likely regions or sub-regions where the specifically equipped aircraft are expected to operate. These regions were separated into the two primary IATA regions of ASPAC and NASIA which when combined is almost identical to the ICAO Asia & Pacific (APAC) region.

2.3 Sub-regions were listed as India/BoB, ASEAN, SE Asia and South Pacific to permit more accurate responses from operators that have some concentrated fleet operations within those sub-regions

only. The objective of this is to permit future analysis to 'drill-down' in those sub-regions when discussions on CNS capabilities are specific to those areas.

2.4   To date responses have been received from 22 airlines which include most major airlines based in APAC, several that are based in other regions but operate here, and several other airlines from within the region. Responses are still being sought in order to continue building the database which currently records equipage and capability data for approximately 3700 aircraft.

2.5   This paper covers preliminary analysis of the responses received for SWIM. It looks at current levels of understanding and development of SWIM components, as well as overall awareness and future plans to adopt SWIM concepts.

Results

2.6   Overall, the progress of airlines to become SWIM enabled is broadly spread but more so on the lower scale of awareness. A small number of respondents reported significant awareness of SWIM concepts and related components and are currently dedicating resources to growing their capabilities. Many more however, have little or no work progressing although the positive sign is that many are interested in joining trials in the short term to increase their awareness of the potential costs and benefits of SWIM.

2.7   The following paragraphs summarise the current responses to the survey questions provided by airlines.
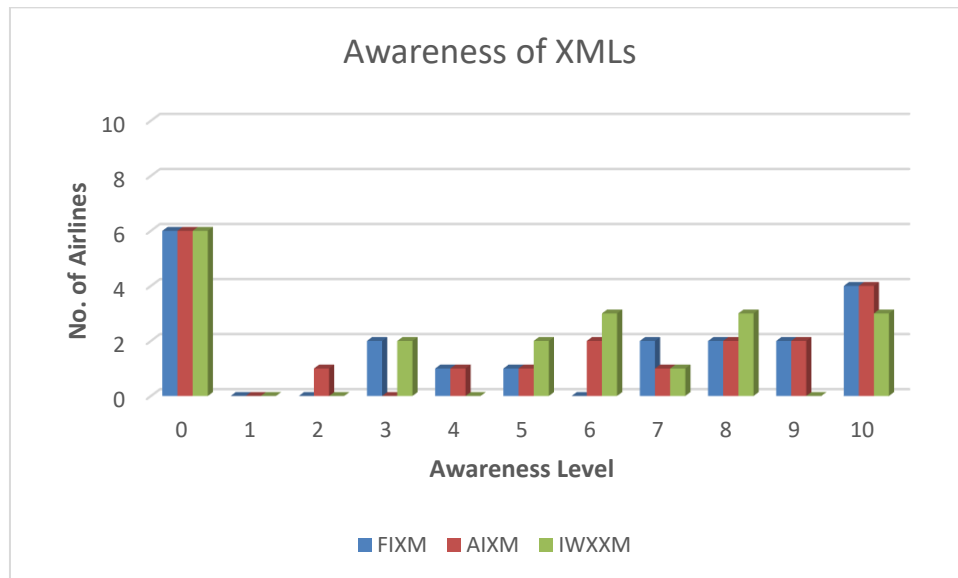
2.8   Has your airline initiated any work to become SWIM-enabled?
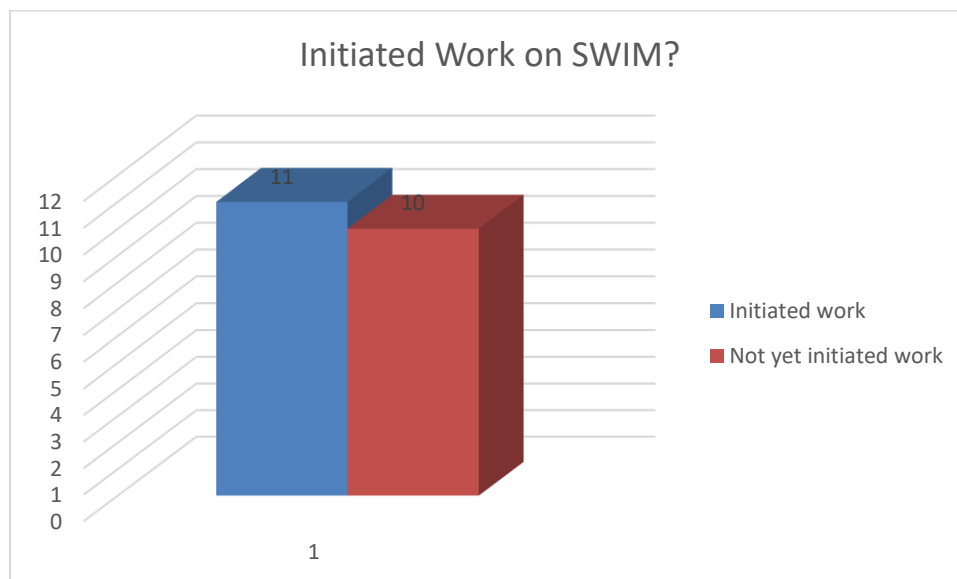
2.9   When does you airline intend initiating work to become SWIM-enabled?
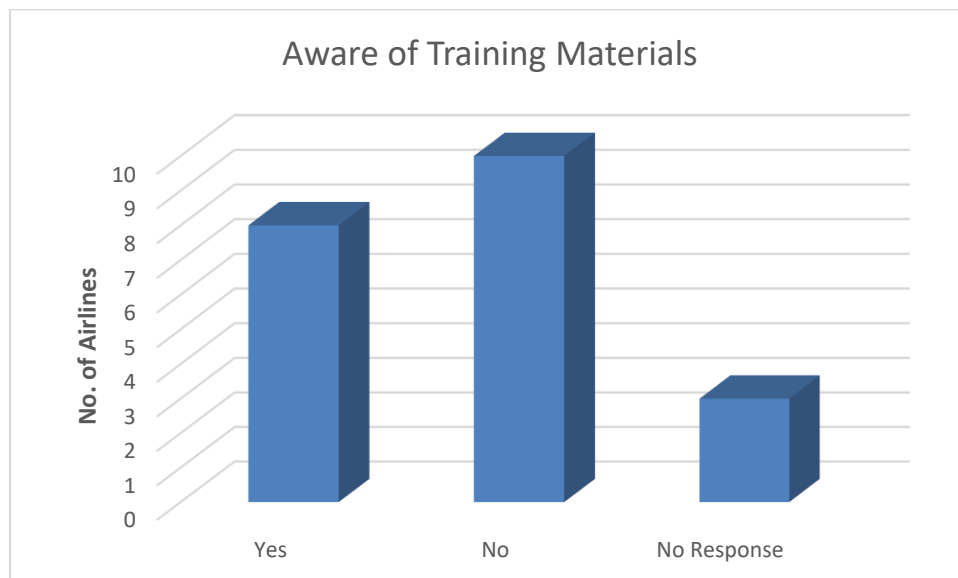
Plans to initiate work?
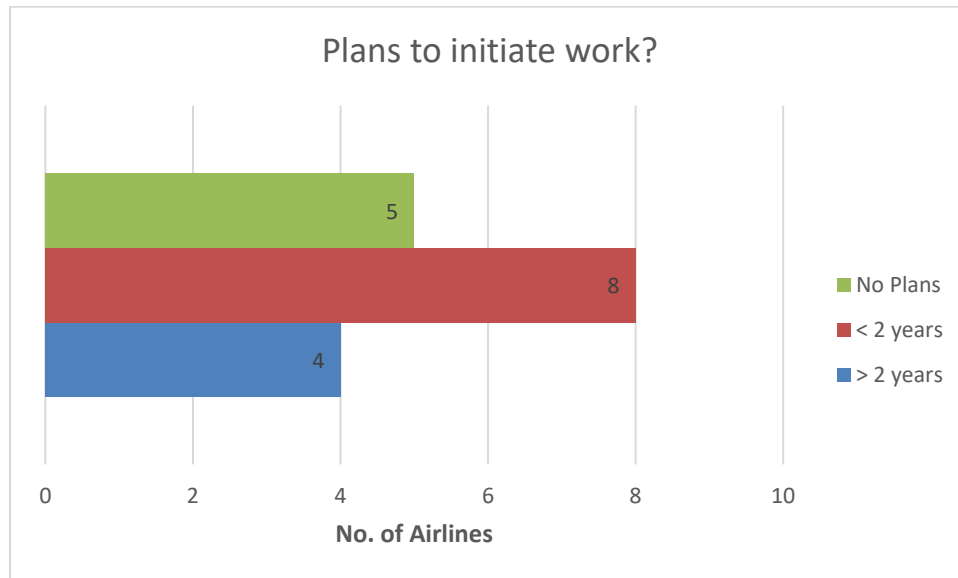
2.10   Indicate your airline's level of awareness of the following SWIM data exchange models (10 being highest):

Awareness of XMLs

2.11   Indicate if your Flight Planning systems are capable of receiving and/or sharing information in any of the above formats?
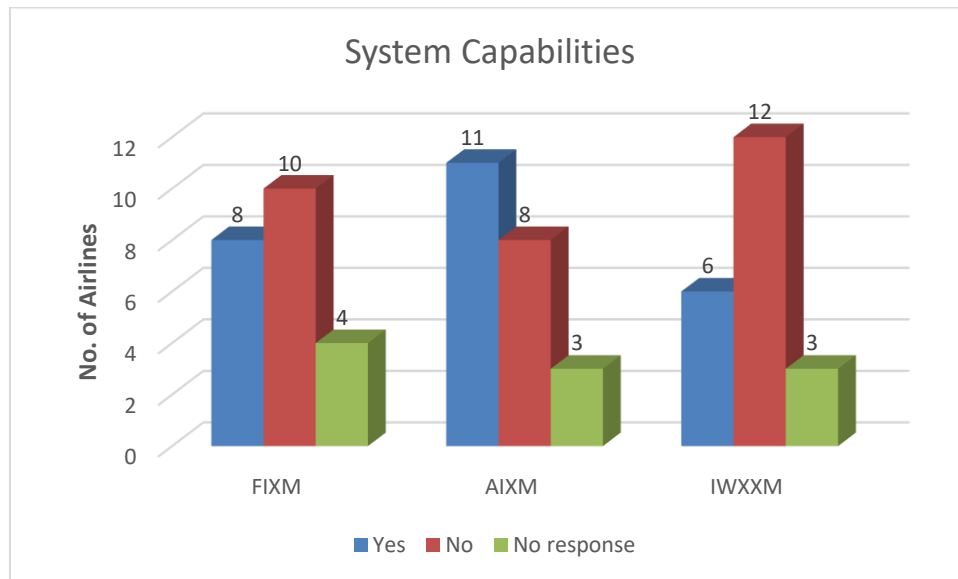
2.12   Are you aware of IATA and ICAO SWIM education videos and training courses?

2.13   Would your airline be willing to join SWIM trials with ANSPs and MET Service Providers, and if yes, when?

> ### Willing to Join Trial
>
> No Response — 4
> No — 2
> Yes > 2 years — 3
> Yes < 2 years — 13
>
> No. of Airlines

        Conclusion:

2.14   IATA will continue to collect data from the survey and produce summaries that can support and inform future discussions within ICAO and other forums. More specific analyses will be conducted once all data is fully filtered and collated and will be based on specific discussions that will benefit from the outputs from the database.

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 matter as appropriate

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