



ICAO

International Civil Aviation Organization

The Seventh Meeting of System Wide Information Management Task Force (SWIM TF/7)

Bangkok, Thailand, 09 – 12 May 2023

Agenda Item 3: Updates on the assigned tasks by task leads/contributors including progress report and issues

c) Technical Architecture

- Task 4: Development and Maintenance of Regional Information Exchange Models

USE OF FIXM VERSION 4.2 CORE TO SUPPORT CROSS-BORDER ATFM INFORMATION EXCHANGE IN ASIA/PACIFIC REGION

(Presented by Thailand)

SUMMARY

This flimsy presents the supplement to SWIM TF/7 WP/16 in regard to the use of FIXM version 4.2 Core to support cross-border ATFM information exchange in the Asia/Pacific region.

1. INTRODUCTION

1.1 As discussed in SWIM TF/7 WP/16 that the exchange of some data attributes originally included in the Asia/Pacific FIXM version 4.1 Extension can be supported by the FIXM version 4.2 Core, this flimsy provides the details of specific FIXM version 4.2 Core data attributes proposed to be used for this purpose.

2. DISCUSSION

2.1 Appendix A shows the specific data attributes of the FIXM version 4.2 Core proposed to be used to support the cross-border ATFM information exchange in the Asia/Pacific region.

2.2 Appendix B presents parts of sample messages incorporated with the data attributes detailed in Appendix A.

3. ACTION BY THE MEETING

3.1 The meeting is invited to:

- a) note the information contained in this paper;
- b) discuss the proposal on the use of FIXM version 4.2 Core together with the FIXM version 4.2 Extension as proposed in SWIM TF/7 WP/16 to support cross-border ATFM information exchange; and
- c) discuss any relevant matter as appropriate

Appendix A

FIXM version 4.2 Core Data Attributes to Support Cross-Border ATFM Information Exchange

Data Attribute	FIXM version 4.2 Core
ETO (Estimated Time Over)	FlightType.routeTrajectoryGroup.filed.element.point4D.time = (ETO) FlightType.routeTrajectoryGroup.filed.element.elementStartPoint = (point at which ETO is specified)
ELDT (Estimated Landing Time)	FlightType.routeTrajectoryGroup.filed.element.point4D.time = (ELDT) FlightType.routeTrajectoryGroup.filed.element.point4D.pointProperty.propertyType = WHEELS_ON FlightType.routeTrajectoryGroup.filed.element.elementStartPoint.aerodromReferencePoint.locationIndicator = FlightType.arrival.destinationAerodrome.locationIndicator
CTOT (Calculated Take-Off Time)	FlightType.routeTrajectoryGroup.negotiating.element.constraint.time.timeSpecification.timeValue = (CTOT) FlightType.routeTrajectoryGroup.negotiating.element.point4D.pointProperty.propertyType = WHEELS_OFF FlightType.routeTrajectoryGroup.negotiating.element.elementStartPoint.aerodromReferencePoint.locationIndicator = FlightType.departure.aerodrome.locationIndicator
CTO (Calculated Time Over)	FlightType.routeTrajectoryGroup.negotiating.element.constraint.time.timeSpecification.timeValue = (CTO) FlightType.routeTrajectoryGroup.negotiating.element.elementStartPoint = (point at which CTO is specified)
CLDT (Calculated Landing Time)	FlightType.routeTrajectoryGroup.negotiating.element.constraint.time.timeSpecification.timeValue = (CLDT) FlightType.routeTrajectoryGroup.negotiating.element.point4D.pointProperty.propertyType = WHEELS_ON FlightType.routeTrajectoryGroup.negotiating.element.elementStartPoint.aerodromReferencePoint.locationIndicator = FlightType.arrival.destinationAerodrome.locationIndicator
EIBT (Estimated In-Block Time)	FlightType.routeTrajectoryGroup.filed.element.point4D.time = (EIBT) FlightType.routeTrajectoryGroup.filed.element.point4D.pointProperty.propertyType = END_STAY FlightType.routeTrajectoryGroup.filed.element.elementStartPoint.aerodromReferencePoint.locationIndicator = FlightType.arrival.destinationAerodrome.locationIndicator

Appendix B

Part of FIXM version 4.2 Core Sample Messages

Data Attribute	Part of FIXM version 4.2 Core Sample Messages
ETO (Estimated Time Over)	<pre> <fx:element seqNum="0"> <fx:elementStartPoint> <fb:designatedPoint> <fb:designator>KIGOB</fb:designator> </fb:designatedPoint> </fx:elementStartPoint> <fx:point4D> <fx:time> <fx:absoluteTime>2023-05-10T01:11:00Z</fx:absoluteTime> </fx:time> </fx:point4D> <fx:routeDesignatorToNextElement> <fx:routeDesignator>Y11</fx:routeDesignator> </fx:routeDesignatorToNextElement> </fx:element> </pre>
ELDT (Estimated Landing Time)	<pre> <fx:element seqNum="5"> <fx:elementStartPoint> <fb:aerodromeReferencePoint> <fb:locationIndicator>WSSS</fb:locationIndicator> </fb:aerodromeReferencePoint> </fx:elementStartPoint> <fx:point4D> <fx:pointProperty> <fx:propertyType>WHEELS_ON</fx:propertyType> </fx:pointProperty> <fx:time> <fx:absoluteTime>2023-05-10T02:54:00Z</fx:absoluteTime> </fx:time> </fx:point4D> </fx:element> </pre>

Data Attribute	Part of FIXM version 4.2 Core Sample Messages
CTOT (Calculated Take-Off Time)	<pre> <fx:element seqNum="0"> <fx:constraint> <fx:time> <fx:timeSpecification> <fb:timeValue>2023-05-10T01:15:00Z</fb:timeValue> </fx:timeSpecification> </fx:time> </fx:constraint> <fx:elementStartPoint> <fb:aerodromeReferencePoint> <fb:locationIndicator>VTBS</fb:locationIndicator> </fb:aerodromeReferencePoint> </fx:elementStartPoint> <fx:point4D> <fx:pointProperty> <fx:propertyType>WHEELS_OFF</fx:propertyType> </fx:pointProperty> </fx:point4D> </fx:element> </pre>
CTO (Calculated Time Over)	<pre> <fx:element seqNum="1"> <fx:constraint> <fx:time> <fx:timeSpecification> <fb:timeValue>2023-05-10T01:21:00Z</fb:timeValue> </fx:timeSpecification> </fx:time> </fx:constraint> <fx:elementStartPoint> <fb:designatedPoint> <fb:designator>KIGOB</fb:designator> </fb:designatedPoint> </fx:elementStartPoint> </fx:element> </pre>

Data Attribute	Part of FIXM version 4.2 Core Sample Messages
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<p>CLDT (Calculated Landing Time)</p>	<pre> <fx:element seqNum="2"> <fx:constraint> <fx:time> <fx:timeSpecification> <fb:timeValue>2023-05-10T03:04:00Z</fb:timeValue> </fx:timeSpecification> </fx:time> </fx:constraint> <fx:elementStartPoint> <fb:aerodromeReferencePoint> <fb:locationIndicator>WSSS</fb:locationIndicator> </fb:aerodromeReferencePoint> </fx:elementStartPoint> <fx:point4D> <fx:pointProperty> <fx:propertyType>WHEELS_ON</fx:propertyType> </fx:pointProperty> </fx:point4D> </fx:element> </pre>
<p>EIBT (Estimated In-Block Time)</p>	<pre> <fx:element seqNum="6"> <fx:elementStartPoint> <fb:aerodromeReferencePoint> <fb:locationIndicator>WSSS</fb:locationIndicator> </fb:aerodromeReferencePoint> </fx:elementStartPoint> <fx:point4D> <fx:pointProperty> <fx:propertyType>END_STAY</fx:propertyType> </fx:pointProperty> <fx:time> <fx:absoluteTime>2023-05-10T03:09:00Z</fx:absoluteTime> </fx:time> </fx:point4D> </fx:element> </pre>