

# EnRouteDelay-PlannedDelay

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## Subject

This CR proposes to use PlannedDelay as the agreed term for EnRouteDelay

## FIXM Component(s)

- |  |   |
|--|---|
| <input checked="" type="checkbox"/> FIXM Logical Model | <input type="checkbox"/> FIXM Implementation Guidance Package |
| <input checked="" type="checkbox"/> FIXM XML Schemas   | <input type="checkbox"/> FIXM Web site                        |
| <input type="checkbox"/> FIXM Conceptual Model         | <input type="checkbox"/> FIXM Primer                          |
| <input type="checkbox"/> Other: ...                    |   |

☐ Verified extension: ...

## Target FIXM Release

- |   |       |
|---|-------|
| <input type="checkbox"/> FIXM Core version          | 4.3.0 |
| <input type="checkbox"/> Verified extension version |       |

## Related FIXM CRs

[Related CRs]

## Motivation

Edition 0.91 of the Implementation Guidance refers to both an En-route Delay and a Planned Delay, meaning the same data item that is named EnRouteDelay in FIXM 4.1. Edition 0.92 has merged the two terms and used consistently the term Planned Delay throughout the document. FIXM should use the same term.

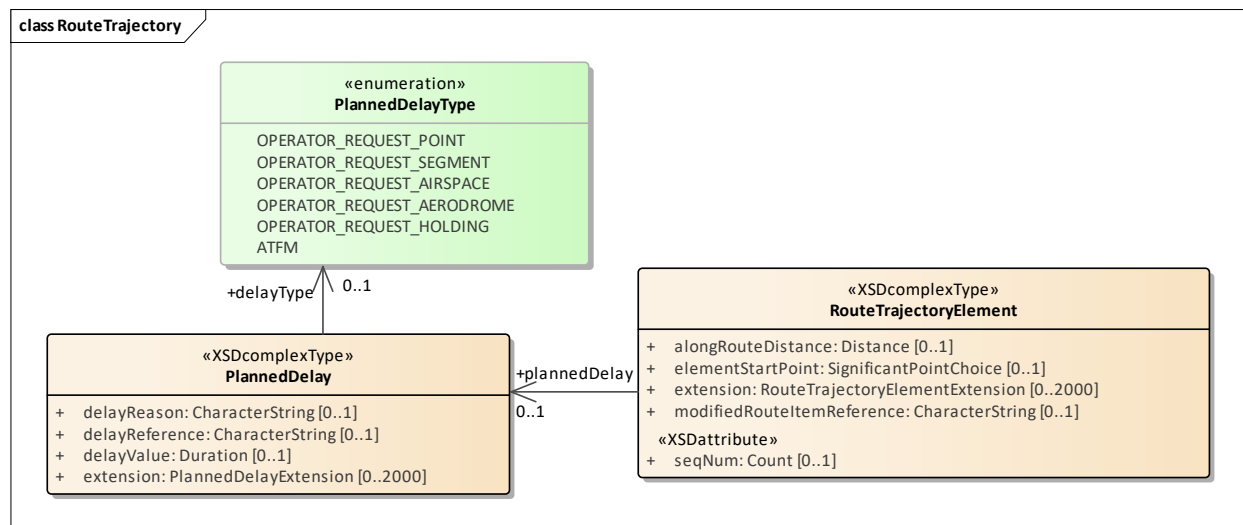
## Proposed changes

Proposal: Rename the EnRouteDelay as PlannedDelay.

Updated for FIXM Core 4.3.0 release with additional modeling details.

In the Route Trajectory package, rename the *enRouteDelay* association, the *EnRouteDelay* class, and the *EnRouteDelayType* enumeration to *plannedDelay*, *PlannedDelay*, and *PlannedDelayType* respectively. Update the definitions of these three items along with the *delayType* association to remove the term “en route”. So, *plannedDelay* and *PlannedDelay* become: “Delay or holding planned to occur at a significant point or along a route element.”. *PlannedDelayType* and *delayType* become: “Indicates if the delay is planned airborne holding or Operator (Airspace User) requested operations at a specified location.” Also modify the definitions of the *delayReference* and *delayValue* attributes under the newly renamed *PlannedDelay* class to remove “en route”. So, *delayReference* becomes: “Indicates a named hold pattern, airspace, or aerodrome at which the delay is expected to occur.”. And *delayValue* becomes: “The length of time the flight is expected to be delayed at a specific point.”.

Lastly, in the Extension package, change the name of the *EnRouteDelayExtension* class to *PlannedDelayExtension* and update its definition to: “A base class for all PlannedDelay class extensions.”.



Update based on FIXM 4.3.0 Kick-Off meeting.

As a result of the discussions during this meeting, the following additional changes were recommended by GCAA with the following explanation.

As per FF-ICE implementation guidance, a point property shall be defined to express an enroute delay due to a non-holding operation at a Point, Segment, Airspace and Aerodrome. But FIXM schema documentation suggests that point property shall be associated with only two operational delay types i.e. Airspace and Aerodrome. Therefore, to align with FF-ICE implementation guidance, the following updates are required:

1. EnRouteDelayType.Operator\_Request\_Point

**Existing**

The delay is an Operator (Airspace User) request to 'spend time' at the **point**, thus the delay has to be added to the flight duration to the next point to compute the estimate to the next point.

**Proposed**

The delay is an Operator (Airspace User) request to 'spend time' at the **point**, thus the delay has to be added to the flight duration to the next point to compute the estimate to the next point.

The expression of stay at this point should be represented by BEGIN\_STAY and END\_STAY point properties.

2. EnRouteDelayType.Operator\_Request\_Segment

**Existing**

The delay is an Operator (Airspace User) request to 'spend time' at the **segment** starting at point, thus the delay has to be understood as the total duration between the point and the next one.

**Proposed**

The delay is an Operator (Airspace User) request to 'spend time' at the **segment** starting at point, thus the delay has to be understood as the total duration between the point and the next one. The expression of stay at this segment should be represented by BEGIN\_STAY and END\_STAY point properties.

3. EnRouteDelayType.Operator\_Request\_Airspace

**Existing**

The delay is an Operator (Airspace User) request to 'spend time' in an **airspace** after the RoutePoint the name of which is in delayReference, the delayValue is the time in that airspace,

the entry and exit time into that airspace is in the BEGIN\_STAY and END\_STAY info of the trajectory

#### Proposed

The delay is an Operator (Airspace User) request to 'spend time' in an **airspace** after the RoutePoint the name of which is in delayReference, the delayValue is the time in that airspace, ~~the entry and exit time into that airspace is in the BEGIN\_STAY and END\_STAY info of the trajectory~~. The expression of stay in this airspace should be represented by BEGIN\_STAY and END\_STAY point properties.

#### 4. EnRouteDelayType.Operator\_Request\_Aerodrome

##### No Change

*The delay is an Operator (Airspace User) request to 'spend time' at an **aerodrome** after the RoutePoint, the name of the aerodrome is in the delayReference field, the points at which the Operator leaves its route and rejoin it go to the aerodrome are in the BEGIN\_STAY and END\_STAY info of the trajectory.*

#### 5. EnRouteDelayType.Operator\_Request\_Holding

##### Existing

The delay is an Operator (Airspace User) request to 'spend time' at a holding pattern the anchor point of which is the RoutePoint. The holding pattern name if any is in delayReference. delayValue used to compute estimates as in OPERATOR\_REQUEST\_POINT.

##### Proposed

The delay is an Operator (Airspace User) request to 'spend time' at a **holding pattern** the anchor point of which is the RoutePoint. The holding pattern name if any is in delayReference. delayValue used to compute estimates as in OPERATOR\_REQUEST\_POINT. The expression of holding at this point should be represented by HOLD\_ENTRY and HOLD\_EXIT point properties.

#### Implementation Notes:

Based on the adjudication of CR 134, the additional changes listed in the CR were not implemented (as these changes appear to go hand in hand with that CR). Additionally, as part of this CR, the enumerated values of PlannedDelayType were restored to alphabetical order (as per standard FIXM guidelines).