

# ATS-B2 EPP INITIAL DEPLOYMENTS

## TRIAL FOR APAC COUNTRIES

### GOAL

This use case outlines the initial phase of an ADS-C EPP trial/demonstration. The main goal is to download EPP data from the aircraft and display the trajectory on a standalone system at the ATC centre. This approach eliminates the need for an upgrade to the controller working position (CWP) in the existing HMI. Controllers will be able to display updated trajectory with the EPP data... This initial trial/demonstration will act as the first step in evaluating the additional benefits of having accurate EPP data and the comparison to the current ground calculated trajectories. Another key benefit of this trial/demonstration is that it does not disrupt or affect the existing ATC operations.

### PARTNERS

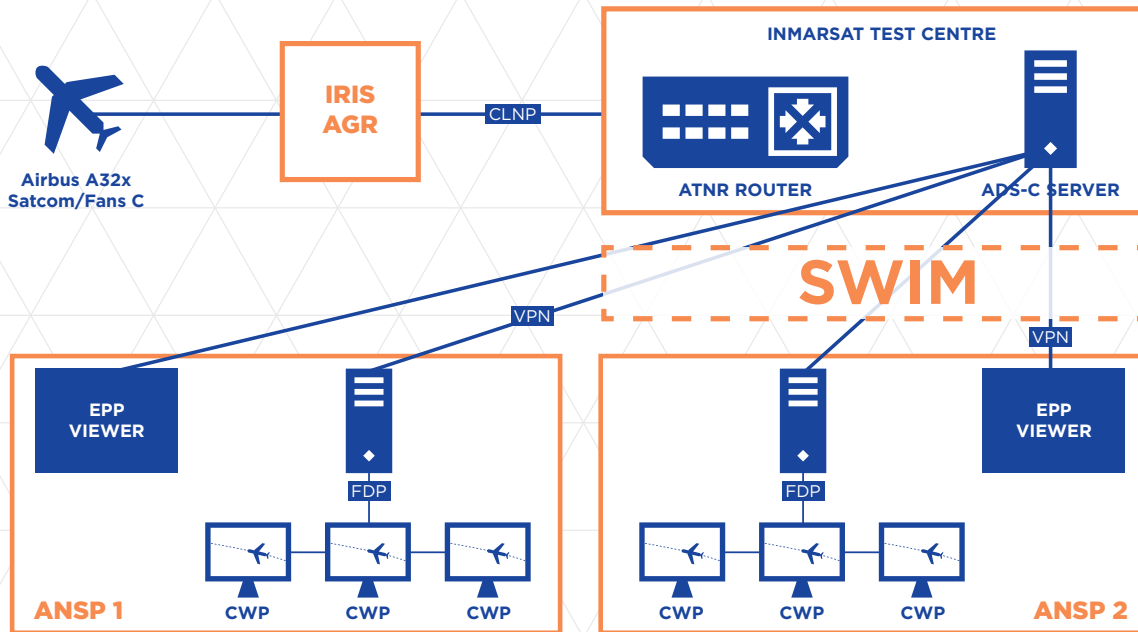
- ◆ Airline operating in region/ANSPs/OEMs.
- ◆ Airbus from A31x/A32x family equipped new ATSU enabled for ATS-B2 (RevA)
- ◆ Inmarsat Satcom (Iris)
- ◆ ANSPs

### BACKGROUND

#### ATS-B2/EXTENDED PROJECTED PROFILE KEY BENEFITS

- ◆ **Reduced human error** - aircraft trajectory can be checked in real-time, thereby avoiding errors such as incorrect route clearances.
- ◆ **Reduction in controller workload** - discrepancy warnings, a reduction in the monitoring of vertical profiles and the clear transparency in the offset procedures results in a significant decrease in workload for controllers.
- ◆ **Improved ATM** - EPP displays the top of climb and descent, enabling controllers to execute continuous descent operations when traffic conditions permit.
- ◆ **Better Awareness** - ATCO's have a better understanding of the airplane's horizontal path, they can plan more efficient routes with real-time EPP that go beyond the previous flight plans.
- ◆ **Enhanced safety** - Ability to enter push-to-load capability for entering lateral clearances in the Flight Management System (FMS).
- ◆ **Workload reduction** - Lat-Long updates allows the aircraft to take a shorter route resulting in less time spent flying in the airspace while consideration for weather and other adjustments mean a much more predictable flight path.

## APPROACH TO TRIAL



### THE FOLLOWING ACTORS/COMPONENTS ARE REQUIRED.

- ◆ An Airspace User would need an Airbus A31x/A32x equipped with a Air Traffic Services Unit (ATSU) enabled for ATS-B2 (RevA) and connected to Inmarsat Satcom (Iris). The participating aircraft will not need to logon to the ADS-C server for the purposes of the trial. An auto logon can be manually generated for the aircraft enabling the establishment of ADS-C contracts for the duration of the demonstration flight.
- ◆ The Iris network provides global coverage.
- ◆ The Inmarsat Test Centre connects to the Iris network. The ADS-C Common Service is responsible for establishing ADS-C contracts automatically with the participating airline's aircraft.
- ◆ A standalone EPP Viewer at each participating ANSP Centre will display the EPP. A SWIM (System Wide Information Management) Client is required. A simple SWIM client can be provided directly by AIRTEL ATN for the purpose of the trial or if necessary ANSPs can develop their own SWIM Client.
- ◆ The controller can then compare the displayed downlinked trajectories in the EPP Viewer with the FDPS calculated flight trajectory.

A flight trial is conducted with the airlines. During this trial, the controller operates as normal, and there is no impact on the operational workflow or ATM network. An additional laptop or display is used to highlight the downlinked aircraft trajectory data.

### BUSINESS CASE FOR THE IMPLEMENTATION OF EPP

- ◆ Optimized flight paths resulting in less miles flown.
- ◆ Increased savings in fuel
- ◆ Reduced CO2 emissions resulting in more sustainable skies.
- ◆ An improved more optimized network

## CONTACT

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