

**RTCA Special Committee 186, Working Group 5**

**ADS-B UAT MOPS Maintenance**

**RTCA Headquarters, Washington DC**  
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**Review of ADS-B RAD for Information on  
Update Rates for NAC<sub>P</sub> and Mode A Code  
In Response to Action Item 23-02**

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<b>Summary</b>
This Working Paper responds to Action Item 23-02, which asks for a review of the ADS-B RAD draft document to see which update interval requirements need to be considered by WG-3/WG-5 and might necessitate changes in the MOPS.

## **Introduction:**

Action Item 23-02 asked that I review the draft of the ADS-B RAD document to see which update interval requirements need to be considered by WG-3/WG-5 and might necessitate changes in the MOPS.

## **Review:**

These are the requirements:

"The time interval between a change of Mode A Code at the input to the ADS-B transmit function and an ADS-B surveillance report containing the new Mode A Code at interface Es shall be no longer than 8 seconds (95%) en route [5s TMA]."

"The time interval between a change of Emergency and SPI information at the input to the ADS-B transmit function and an ADS-B surveillance report containing the new Mode A Code at interface Es shall be no longer than 8 seconds (95%) en route [5s TMA]."

## **Result:**

This means to me that both Mode A Code (once every 8 seconds) and Emergency and SPI info (every 4 seconds ?) will need to be transmitted at an increased rate, if we want to meet the RAD requirements. There's more mushiness about NAC<sub>p</sub>, as they allow determination of accuracy from NIC if NAC<sub>p</sub> isn't received within 24 seconds in en route or 15 seconds in TMA, so maybe increasing NAC<sub>p</sub> isn't as important.