

Airbus backs up speed and altitude displays

Airbus is to roll out a functionality upgrade for its fly-by-wire aircraft to enable them to be flown safely in the event of an anemometric failure using a back-up speed and altitude indication mode.

According to Airbus vice-president training and flight operations Capt Jean-Michel Roy, this degraded primary flight display mode uses angle-of-attack data to provide speed information while barometric altitude is replaced with positional data derived from the GPS navigation and, when close to the ground, height data from the radio altimeter.

"We have had cases of unreliable airspeed information on the

A330/A340 fleet, due to contamination of the ADR [air data reference] system where it was not able to isolate the faulty information," says Roy.

To cater for this situation, Airbus had developed a back mode where "the speed scale will display the back-up speed information derived from the angle of attack with the very simple logic - you have red and green and the logic is 'fly the green'," Roy says.

The back-up speed mode will be rolled out on new A330/A340s later this year. It will be standard on the A380 and A350 and is expected to be offered for retrofit to the in-service fleet.

CONFIGURATION OF PRIMARY FLIGHT DISPLAY IN DEGRADED MODE

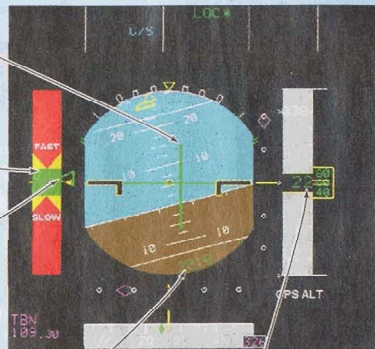
Flight director symbol

Normal speed scale replaced by colour scale derived from angle of attack sensor with pilot aiming to "fly the green"

Speed symbol

Radio altitude (available at low altitudes)

Barometric altitude replaced by GPS-derived data (altitude above mean sea level)



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