PROBLEM

WINGLETS AND LOW POWER APPROACHES

FDS were asked by a customer to investigate a case where action taken to reduce fuel consumption had led to an unexpected change in flight characteristics on the approach to landing.

The customer advised FDS they had experienced a high number of ‘Low Power on Approach’ events for their aircraft.

INVESTIGATION

FDS identified that occurrences of this event varied significantly by aircraft. When FDS plotted data for aircraft with winglets against similar aircraft (within the fleet) without the cause became apparent.

The FDS comparison chart below shows that the event rate for the aircraft with winglets was over twice as high as the event rate for aircraft without winglets.

LOW POWER ON APPROACH SCALED EVENT RATE

To find out how you can improve flight safety in your operation visit www.flightdataservices.com
It is common knowledge that winglets reduce drag and save fuel, but FDS believe their effect on speed control may previously have been underestimated. Proactive use of FDM raises awareness of the impact that reduced drag has on speed control.

SOLUTION & CONCLUSION

FDS also discovered that the 'Speedbrake in Approach' event occurred over three times as often on aircraft with winglets compared to those without.