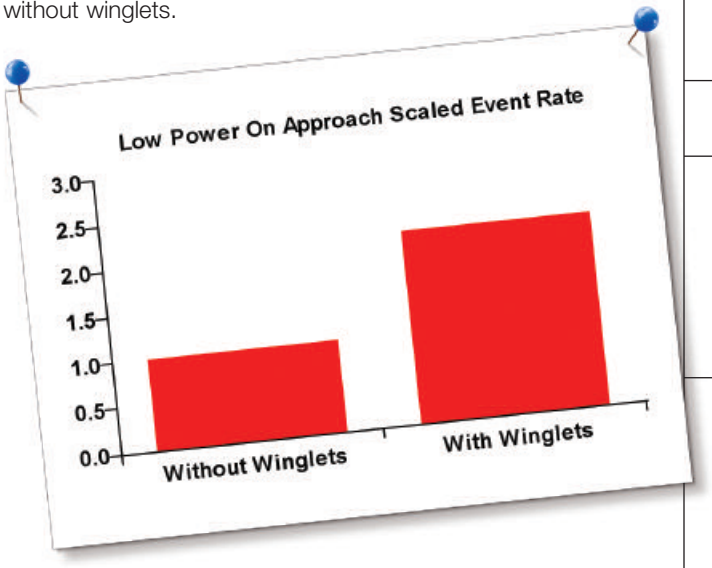
FOQA/FDM Case Study 6

Winglets and Low Power Approaches

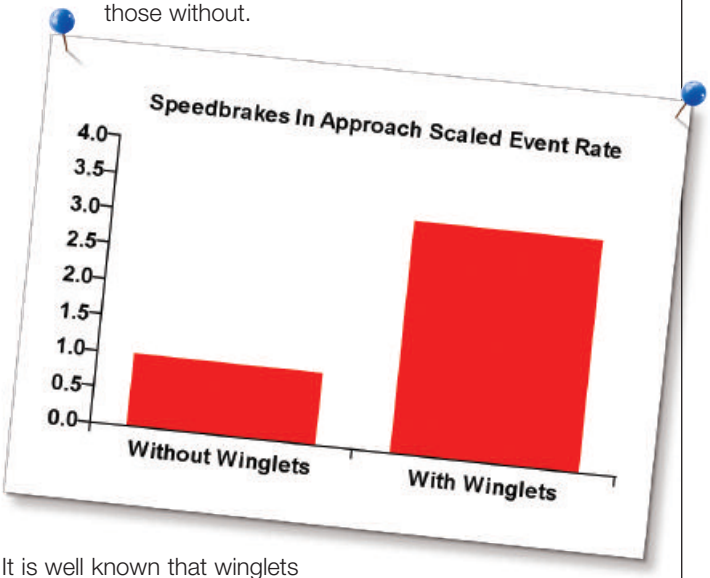
There is an old saying that "you don't get something for nothing". Here is a case where action taken to reduce fuel consumption led to an unexpected change in flight characteristics on the approach to landing.

Recently a customer asked Flight Data Services (FDS) to investigate a high number of "Low Power on Approach" events for their aircraft. The event rate for this event was found to vary significantly by aircraft, and the cause was obvious when FDS plotted data for an aircraft with winglets against similar aircraft in their fleet without winglets.

This chart shows that the event rate for the aircraft with winglets was over twice as high as the event rate for aircraft without winglets.



Also, the "Speedbrake in Approach" event occurred over three times more often on the aircraft with winglets than those without.



It is well known that winglets reduce drag and save fuel, but we believe their effect on speed control may not have been highlighted before. Crews need to be aware that reduced drag makes speed control on the approach more difficult, proving that "you don't get something for nothing".

FDS helps customers to identify safety issues in their operation and then achieve measurable reductions in event rate.

How will you improve flight safety in your operation?

Find out more

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