

# **CASE STUDY 2**

## **GO-AROUND PROCEDURE**

### **THE EVENTS**

One well established operator was using the Flight Safety Foundation's Approach and Landing Accident Reduction (ALAR) toolkit to train their crews in the importance of the stabilised approach. This stresses the importance of initiating a Go-Around if the approach did not meet the airline's Standard Operating Procedures (SOPs) for stability. This was working well, until one day when a crew initiated a Go-Around but during the climbout they experienced an Enhanced Ground Proximity Warning System (EGPWS) "Pull Up" warning.

### **THE INVESTIGATION**

The approach was unsatisfactory and failed to meet the airline's stability conditions so the crew had made the right decision to initiate a Go-Around. This should have led to a safe climbout without subsequent warnings. Investigation of the flight therefore concentrated on the operation of the aircraft following the decision to abort the landing. It fairly quickly became apparent that full power had been applied on both engines, but the aircraft had not climbed as it should. Although flap had been retracted in accordance with the procedure, the speedbrakes were still deployed. Consequently the aircraft had only climbed slowly and rising terrain led to the Pull Up warning. Fortunately the crew then realised their mistake and stowed the speedbrake rather than pulling back on the control column which could have made matters worse.

When the airline's Flight Safety Officer (FSO) discussed the circumstances of the Go-Around with the crew concerned he found that they had followed the procedure correctly, but there was no reference to the speedbrake on the Go-Around procedure.

### **THE SOLUTION**

As soon as this data had been analysed and the FSO had completed his interview with the crews, an email was sent to all pilots in the company reminding them of the importance of retracting the speedbrakes and explaining that this was not in the current procedure.

Urgent action was also put into place to correct this omission and issue updated procedures.

### **DISCUSSION**

So far as we know, the crew in this case simply followed the procedure and overlooked the deployed speedbrakes. Fortunately, EGPWS alerted them to the situation and they avoided an accident. The investigation also identified that some aircraft automatically stow their speedbrakes when a Go-Around is initiated, while others do not. Although not applicable to this specific case, there is a risk that a pilot who has been trained on a type with automatic speedbrake stowage may forget the speedbrakes after converting to a type with manually operated speedbrakes.

As the data analysts for this airline, Flight Data Services (FDS) took action to develop an algorithm that would identify any case where the aircraft was being flown with the speedbrakes out but climb power, and the algorithm has been provided to all FDS customers with manually stowed speedbrakes. Note: An algorithm to detect this potentially hazardous condition is not called for in Civil Aviation Authority document CAP739 or in the Joint Aviation Authority's advisory material.

Since extending this additional algorithm to all customers, FDS have identified numerous cases where aircraft have been flown using climb power but with speedbrakes still deployed. This new event ensures that all these cases have been brought to the attention of the airline's Flight Safety departments. This is a good example of how Flight Data Monitoring needs to evolve to reflect the hazards of airline operation.

## **CONCLUSION**

Incident investigation identified a missing check for stowing speedbrakes after initiating a Go-Around. This has led to correction of the procedure and development of a new Flight Data Monitoring event. Failure to stow the speedbrakes has been found to be occurring more often than anticipated.