CASE STUDY ELEVEN

FDM FOR THE BUSINESS JET USER

Flight Data Services were asked to participate in a one year trial to demonstrate both the safety and economic benefits of Flight Data Monitoring to operators of business jets. This was achieved by fitting quick access recorders (QARs) to three aircraft from three different operators which were below the 27,000 kg weight limit for which FDM is mandated. Flight Data Services were selected to supply the equipment for the aircraft and provide the data analysis and results for the non-mandated aircraft.

The success of the trial would determine if there were to be a larger scale trial launched as phase 2 of the project, during which the benefits of FDM data aggregation could be demonstrated to benchmark and identify trends which would feed into individual operators safety management systems.

The first stage was to collect data from aircraft. During the trial, 400 flights of data were collected from the aircraft proving that the aircraft could be modified to accept QARs.

INVESTIGATION

Although the purpose of the trial was to prove the feasibility of gathering data from this class of aircraft, the question that immediately followed was, were there any issues found? As with all operations new to FDM, different operators identified different issues, for example, low rotation rates at take-off occurred in one type while with another speedbrakes, were used more often than expected.

Although it was only run for a short period, there was one clear case of a safety event being identified and addressed during the course of this trial, specifically the event was high speed between 5000ft and 3000ft during the descent. The limit was set at 250 knots to account for bird-strike speed limits, ATC needs and also operations in Class G Airspace.
CONCLUSION

The trial demonstrated the practicality of gathering data from smaller corporate aircraft and as an added bonus, encouraging initial results were obtained from this programme. All three operators involved in the trial have gained a better understanding of their operation.

The operators recognised the value and potential for this safety tool to be applied to smaller aircraft and understood that, for this to be really effective, it had to be tied in with a data sharing mechanism to gain a greater depth of understanding and insight into the safety issues.