CASE STUDY 1 – STOWING TAKE-OFF FLAP

PROBLEM

An FDS customer, new to the process of outsourcing their flight data, noticed regular instances of 'Flap Altitude Exceeded' being reported. The report produced by FDS' team of in-house experts (many of whom are ex-pilots) revealed the problem was being caused by late retraction of the take-off flap. Some instances showed this was happening at a few hundred feet, but two, more serious events, took place at 16,000ft and 21,000ft respectively, which alerted the FDS team who flagged this up as a problem for investigation.

INVESTIGATION

After examination FDS discovered this was a long standing and ongoing problem that had only been discovered by the introduction of FDS' POLARIS Data Monitoring Software. With the FDS report in hand, the Flight Safety Officer (FSO) was able to begin the process of pinpointing the exact root of the problem. They interviewed crew from the relevant flights and held detailed discussions about the operation of the flap controls.

This process revealed that the non-handling pilot had sole responsibility for completing the post take-off checklist and that this process was often interrupted by other tasks, such as operating the radios. Interruptions meant the non-handling pilot would occasionally fail to complete the checklist, including raising the flap lever. In such cases, the climb progressed with the take-off flap set incorrectly until either of the pilots noticed the position of the lever. As this issue did not drastically affect the handling of the aircraft the aerodynamic cues were weak and could easily go unnoticed by the pilots.

SOLUTION

Using the information supplied by FDS, the FSO was able to identify the cause of the problem, alter procedure and – using the recommendations laid down in the report - correct it by;

- Bringing this to the immediate attention of the aircrew by posting a notice in the crew room.
- Changing the company Standard Operating Procedures (SOPs), making all flight cockpit checks 'challenge and response'.

ACTION

Since FDS' investigation and the subsequent process changes there have been no instances of this event being reported.

CONCLUSION

This case study provides an excellent example of the non-punitive use of FDM to correct procedural errors/issues that have previously gone unnoticed.