



CIVIL AVIATION CASE STUDY

Aer Lingus LOSA Case Study

"LOSA is proposed as a critical organisational strategy aimed at developing countermeasures to operational errors. It is an organisational tool used to identify threats to aviation safety, minimise the risks such threats may generate and implement measures to manage human error in organisational contexts"
ICAO, 2002

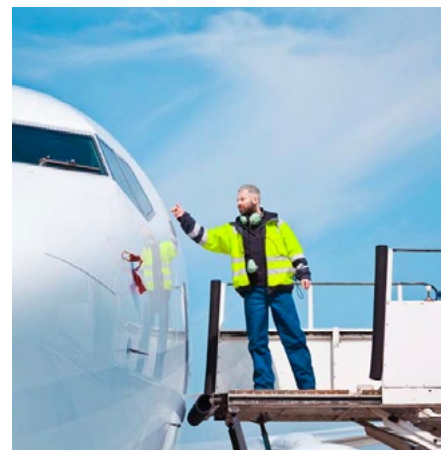
CLIENT PROFILE

Aer Lingus is a full-service carrier Airline, covering both domestic and international airways. Headquartered in Dublin, Aer Lingus is the national airline of the Republic of Ireland and has been publicly owned since its flotation in Oct-2016. Aer Lingus became a wholly owned subsidiary of the International Airline Group (IAG) in 2015.

WORK COMPLETED:

Aer Lingus invited Clockwork Research to undertake a Line Operations Safety Audit (LOSA) in winter 2018. Aer Lingus had not completed a LOSA before and were keen to both collect data for safety, standards and to inform the beginnings of their evidence-based training (EBT) programme.

The key benefit of a LOSA programme is that it collects pro-active information on safety during normal line operations. The majority of safety data collection tools used by airlines are reactive and only deliver information after an event or incident has occurred.





In contrast, appropriate analysis of the data collected during a LOSA can be used to identify areas of risk that need attention before an incident occurs. In essence, the LOSA methodology '...provides a diagnostic snapshot of strengths and weaknesses that an airline can use to bolster its safety margins and prevent their degradation' (Helmreich, 2006).

THE CHALLENGE:

In 2018 Aer Lingus were rapidly expanding, acquiring multiple new aircraft and crew. The LOSA objective was to collect data to enable the airline to ensure their standards were maintained throughout the expansion.

There were multiple aims including:

- Collecting data to inform improvements
- Provide a baseline to enable changes over time to be tracked
- To inform evidence-based training (EBT)

THE SOLUTION:

A LOSA Committee was established, with representatives from different departments across the business.

Care was taken to ensure we established the questions they wanted answers to, and which could not be answered by other means. Standard LOSA questions offer limited value; by agreeing the questions most relevant to Aer Lingus we were able to create a bespoke LOSA which provided tangible value and insight. As the questions were from different departments, the insight gained was of value to all.





The data collection tool was then tailored to the Aer Lingus questions.

Similarly we tailored the observer training to the Aer Lingus questions. Observers attended a four-day LOSA observer training course led by the FRM team. The course was structured according to, and covered all, the information recommended in the ICAO and FAA LOSA guidance documents.

Observer training was delivered to pilots who had volunteered and been approved as observers. LOSAs are often conducted with Captains as observers, we prefer to use First Officers as this tends to have less impact on the behaviour of those being observed.

One on one training feedback was provided to ensure standardisation of data collection. Having compiled and analysed the data we then created a report detailing our findings which included recommendations, where appropriate and of value to Aer Lingus.

THE OUTCOME

Creating a tailored LOSA helped Aer Lingus gain answers to the questions most pertinent to them.

The LOSA also enabled Aer Lingus to measure their current processes, success and challenges. The observation process uncovered some unexpected additional insight into some process which had been perceived as not requiring observation.

Opportunities for mini LOSAs were identified and could be completed every couple of months for a year, to keep on track of the changes, providing valuable ongoing measurement for Aer Lingus.





The new EASA behavioural indicators were trialed:

The LOSA offered an ideal opportunity to trial the new EASA behavioural indicators (BIs) being used by the Training Department. The indicators were rated per pilot and per sector, using the EASA 5-point rating scale.

Improved data collection process:

Observers recorded their data in a Numbers workbook on an iPad or Mac laptop. Historically data collection methods for LOSAs have been cumbersome and clunky, sometimes using mixed materials and requiring 'write-ups' after observation. By using the bespoke tool, adapted for Aer Lingus and reflecting their tailored questions, the data capture process was simplified, unified, and the whole process more efficient and consistent. Collecting data this way proved popular with the observers and, thanks to the accuracy of the data, resulted in a robust and clear report for Aer Lingus.

Collaborative benefits:

The LOSA Committee comprised of people from all departments all working collaboratively on the LOSA project. Different departments working together on shared project is not always possible in busy organisations, and the opportunity to work together in this way was welcomed and beneficial for all involved.

SUMMARY OF SERVICES USED

- + Tailoring of LOSA Methodology
- + Bespoke observer training
- + LOSA data collection and analysis
- + Customised LOSA Workshop for Leadership Team