

## Case Study on



## Implementation at



Prepared by

**FlightDataPeople**

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17 Wellington Business Park  
Crowthorne  
Berks  
RG45 6LS  
UK  
+44(0)1344 234047  
eddie.rogan@flightdatapeople.com

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## 2. System requirements

Icelandair needed to replace their existing SMS tool (AQD) with a tool which could satisfy the following requirements:

- Easier to use by their staff throughout the organisation.
- Simplify and reduce the number of incident report forms which currently being processed.
- Interface with the Icelandair Operational system so that form fields can be automatically populated which will simplify the process for reporters.
- Produce more meaningful risk analysis and have drill down capability.
- Interface with their FDM system so that links could be made with ASRs associated with FDM events.
- Easy to implement and upgrade to new versions – Hosting solution.

## 3. SMS360 Implementation

Icelandair was already a long standing customer of FlightDataPeople and had been using FDM360 for many years. The hosted SMS360 system was evaluated and selected to replace their old Client Server based AQD system. The smart form design offered by SMS360 meant that new simpler forms could be employed and the number of forms reduced from 19 to 7. The forms set up were Air Safety Reports, Maintenance Safety Reports, Cabin Safety Reports, Ground Safety Reports, Fatigue Reports, Hazard Reports and Voyage Reports. In the previous system the reporter had to choose from a variety of reports, the new forms are one form per user role. For example, ground handlers can only use the Ground Safety Report, only the pilots and cabin crew have to choose between Air Safety Report/Cabin Safety Report or Fatigue Report; the pilots can additionally file their Voyage report in SMS360. The forms were designed with selectable, collapsible sections to make them easy to use but also allowed many of the old forms to be integrated into one form.

The implementation consisted of the following elements:

- Setting up new online occurrence forms
- On-site Training
- User Acceptance Testing (including test data migration)
- Data migration from the old SMS tool
- Go-Live

The transition from AQD to SMS360 went smoothly without any safety office downtime which was mainly due to the following:

- FlightDataPeople did all of the set up remotely and hosted the system on their servers and delivered prototypes of occurrence forms and the set up on-line for Icelandair safety staff to review and sign-off in advance of the go-live date.
- The Icelandair staff were very flexible and keen to adopt best practice and change from the old ways of doing things which their previous SMS tool had required them to do.
- SMS360 required minimal training and the feedback from Icelandair was that they found it to be very easy to use but highly effective having excellent risk analysis and reporting capabilities as well as using best practice SMS processes and techniques.

## 4. Benefits

Within minutes of going live with SMS360, Icelandair were able to do risk analysis on their old data which was not possible using their old AQD system. Even though they had risk assessed every incident in the past, they had not been able to produce analysis which would identify their top risk areas.

The new SMS360 incident forms were very simple to enter and process; reducing these forms from 19 to 7 also meant that the overall process of managing incidents became easier and the safety team were more efficient leaving them more time to manage safety.

Other benefits of SMS360 to Icelandair included:

**Hosted solution:** FlightDataPeople host the software on their servers so no internal IT Hardware and People costs associated with the implementation and operation.

**Easy to implement and use:** The SMS360 training was one day for the main users and the set up and installation was done by FlightDataPeople who host the system on their own servers.

**Smart forms:** The forms in SMS are able to be set up to allow relevant sections to appear if the relevant check box is selected; e.g. if Birdstrike checkbox is selected then Birdstrike section and associated fields appear on ASR. Confidential check boxes were also made available on some of the occurrence forms. Sketch areas and attachments can also be included on these forms.

**Listings:** SMS360 is able to list Incidents, Investigations, Findings and Action in an easy a well laid out screen. These listings are configurable by the user allowing them to set up list views which best suit their needs.

**Risk analysis:** Every incident is risk assessed using the EASA recommended ERC (Event Risk Classification) matrix. Every incident is also risk weighted which allows proper risk analysis to be made and allows easy identification of the high risk areas.

**Ops data import:** Data from internal systems can be imported into the incident.

**Security:** The security can be controlled by incident type, department, role and user. Also fields can be made confidential which provides another level of security. A confidential check box can also be added to the forms and selected by the reporter.

**Configurable exports:** Data from SMS360 can be exported to various file formats using a configurable exporter within the system. This is also for producing reports.

**Trend drill down charts:** The analysis and reporting capability within SMS360 was one of the best features in SMS360 and the drilldown capability was very useful at identifying the main reasons for trends.

**Filtering:** There are very useful quick search filters and more comprehensive filtering facilities in SMS360 which allows a user to group sets of common incidents which can easily be viewed, printed or exported as required.

**MOR Reporting:** SMS360 uses built-in MOR templates for reporting MORs to the aviation authority via an email interface with system. New MOR templates for Air Safety Reports, Maintenance Safety Reports, Cabin Safety Reports and Ground Safety Reports were set up for Icelandair and approved by the Icelandic CAA.

**Actions via emails (two way interface):** Actions can be assigned to a department, an SMS360 user or to an email address. The latter is very useful for actions to external organisations (e.g. Ground Handler, ATM etc.) or staff who do not have access rights to SMS360. An actionee who receives an Action email from SMS360 is provided with details of the incident and can simply select respond in the email and their response will automatically be entered into SMS360 and an email sent to the actioner to notify that a response has been received.

**Action monitoring:** SMS360 provides an easy to follow action process and allows these actions to be monitored against target date and also that these were effective by using the built-in trend analysis capability.

**FDM Interface:** Icelandair are planning to upgrade their FDM360 to the full hosted service.

### Testimonial from Vilhjálmur Þór Arnarsson, Safety Manager, Icelandair

As an FDM360 customer, we have worked well with FlightDataPeople in the past and their customer support has always been very good which gave us confidence in their ability to support us through the implementation of SMS360 and beyond.

We looked at a number of SMS tools to replace our existing system and decided to go with SMS360 mainly for the following reasons:

- Reducing 19 forms to 7 was always going to be a challenge and the smart form design employed in SMS360 allowed us to do this. For example the old incident report forms for Volcanic Activity, Bird strikes, TCAS etc. were also integrated into one Air Safety Report using selectable collapsible sections which meant the form could be kept simple.
- The user friendliness of SMS360 and how easy it was to do very sophisticated analysis with drill down capability. This would not only produce more meaningful risk analysis but also increase our productivity in the safety office.
- SMS360 used best practice SMS processes and techniques but designed to be simple and flexible.
- The ability to connect the reporting system with our crew rostering system to make it easier for our crew to submit a report and getting rid of spelling mistakes or wrong



date insertions. In the past we had issues with flights departing before midnight in the USA arriving the next day in Iceland, often the wrong date was selected adding to our work in the safety office in verifying that we had the correct flight. In SMS360 the lookup feature will only display flights the reporter was on.

- Reliability issues with our old reporting software, was one of the reasons we wanted to change programs. Our experience using FDM360, its user friendly and simple interphase along with its operational reliability played a big part in our decision.
- The methodology used in SMS360 on raising findings and actions with the ability to send actions to users email outside the airline, such as contractors or Air Traffic Control with the ability for them to respond directly into our system. This is very beneficial and not an available in any other systems we reviewed.
- During the integration we have had direct access to FlightDataPeople key people who made adjustments to the program to enable us to set it up in a way that suits us best.
- The support we had received from FlightDataPeople in the past on FDM360 has been very good and we look forward for similar levels of support for SMS360.