



The transformation to performance-based regulation

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Moving to a risk and performance-based approach to regulation

Introduction from Mark Swan

The UK has an excellent aviation safety record, with very few accidents and millions of flights, however, that doesn't show the whole picture. Behind the safety statistics are incidents, near misses and risk factors that could have developed into accidents. With the number of flights set to rise, more demand is being placed on an already busy system. By building a picture of aviation safety performance across the total system we can see the true extent of the risks to UK passengers and the general public. We can also make better decisions about how to ensure that the aviation industry is managing the risks effectively.

To achieve our strategic objective and to improve what are already very high levels of safety, we need to do something different. Further regulation and just doing more of what we currently do will not have the greatest effect. We know that reacting after an incident or near miss is not the best way to prevent it happening again. We need to examine the causal factors more closely and transform our regulatory activities to follow a more risk and performance-based approach. We are not alone in recognising the need to change.

Performance-based regulation (PBR) is central to EASA's and ICAO's future plans. The CAA is working closely with our international colleagues to shape how PBR works in practice. The UK industry has fed back that it believes PBR should make the CAA more proportionate and targeted, have a greater degree of commercial awareness and be more transparent about how money is spent.

Over the next two years we are building and strengthening the capabilities required to be performance-based. This will mean transformational change across our people, processes, systems and mind-set. Many of the organisations we regulate will also need to change to some degree to get the most out of the performance-based approach.



Mark Swan

Director, Safety & Airspace Regulation Group

The CAA's safety strategy

Protecting UK aviation consumers

A performance-based approach will help us to identify the safety outcomes. This will allow us to target our resources strategically to the areas with the greatest potential to deliver safety improvements. Our safety experts will support the industry to better understand their own risks in the context of the total aviation system and take proactive steps to manage them.

We aim to adopt a full PBR approach by April 2016. So far we have established:

- Performance-based oversight – A new process for carrying out safety oversight based on known risks and safety performance.
- An initial total aviation risk picture and a series of prioritised risk mitigation activities with associated safety projects.
- The requirements for an integrated safety risk reporting and management system to better inform strategic decisions made by the CAA Board, and the allocation of resources to act on them.

Understanding the risks across the aviation system will ensure that we focus our resources to achieve the greatest benefits

- The key governance fora (a Safety Action Group and Safety Review Board) that will underpin the CAA's internal Safety Management System.

Targeting our engagement with organisations in other countries who have the potential to mitigate major risks to UK aviation consumers is a key part of our safety strategy. For example, we have already worked with the Turkish regulatory authority to enhance Turkish airlines' safety performance in the UK, and with UK airlines to enhance the safety performance of their operations globally.

Through the transformation to PBR and our involvement internationally, the CAA will strengthen its ability to ensure that the major risks to UK aviation consumers are being well managed. We will have a far greater understanding of the safety risks wherever they come from, and will be able to focus our resources more proportionately to achieve the best safety outcomes.

Supporting safety management

Intelligence and data to support safety management

There are multiple sources of safety risks to UK aviation consumers arising from areas that are within our traditional regulatory remit and from the aviation system globally. The targeting of our resources has to be based on the best intelligence – that means getting a total system picture of what’s happening – which is built from more than just occurrence reports.

As part of the transformation to PBR, the CAA is investing in new tool sets, processes and training its people to gather, analyse and share safety intelligence and data. There is lots of valuable information that can be extracted from the industry. We need to be in a better position to capture that information and manage how it is used. The ability to aggregate data from individual organisations and analyse it at a sector level will enable us to add real value to industry by offering risk information that is directly relevant to its type of operation and the areas it operates.

Our approach to assessing risks across organisations, sectors and the total system will become more consistent. This will allow us

PBR is creating an entirely different set of risk and performance conversations that can add significant value from a safety perspective

to compare and prioritise safety outcomes with more confidence and set off the right programmes of action to achieve them, either through direct interventions or by using our influence externally.

The PBR approach will improve the sharing of risk information and best practice. Accountable managers and operational personnel will be able to compare their safety management performance with similar organisations, helping to strengthening areas of relative weakness across the system. The introduction and continued development of effective Safety Management Systems (SMS) across industry is providing a framework to measure safety performance. In line with EASA’s ambitions, the CAA is developing its own internal SMS, which is being designed to underpin the PBR approach and make sure we go about making and evaluating our decisions to enhance safety in a proportionate and transparent way.

Performance-based oversight

Performance-based regulation may not always mean less oversight

The development of options to best enhance safety will often involve the identification of poorer performers. Increasing the intensity of our oversight in areas that are most likely to produce an improvement is key to the success of the risk and performance-based approach.

Performance-based oversight will generate the evidence to identify where poor safety performance is endemic, and allow us to focus

more regulatory effort in assuring the necessary changes are made. Conversely, we will be able to identify areas where a potential reduction in the intensity of regulatory effort is warranted due to clear evidence of good safety performance.

Flexing the level of oversight based on safety performance requires our people to work in joined-up, multidisciplinary teams. We need to draw together all the available

evidence, knowledge and experience about factors that impact an organisation’s safety performance before making decisions about future oversight activity.

The transformation to PBR will provide our people with the tools and training to combine their professional judgement with multiple sources of intelligence and data, and to deliver oversight in a consistent and proportionate way.



