

# How do we find safety problems before they find us?

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## Abstract

This contribution elaborates on the safety management issues as they have been developing on a major airport in Europe. Over the past decade several subsequent safety models and concepts have been developed, each represented by different stakeholders and covering different safety issues. Starting from an event driven approach –the crash of a B747 in an apartment block- questions have been raised about the opportunities for an airport wide cooperation among stakeholders, their interfacing issues, substantive safety aspects and the required analytic potential to deal with a variety of performance indicators, including incidents. During the process, a systems approach has emerged, covering safety issues related to primary processes at the airport, combining probabilistic and deterministic safety approaches, while gaining societal support for their implementation. The developments are put in the framework of ICAO and EU developments, as well as the reintroduction of the precaution principle in the Dutch risk debate. Improving safety performance at a systems level requires timely transparency, communication between stakeholders, application of multiple performance indicators and on-line monitoring of primary processes. Safety is considered a professional as well as a societal condition for maintaining faith in the aviation sector. Such a condition requires knowledge development as well as a knowledge management strategy in order to develop, disseminate and implement new insights in the aviation community.

## Introduction

Like many other countries, the Netherlands faces an era of changes. Major infrastructure projects are under construction, traffic volumes are increasing, privatization is well under way and ICT applications become widespread in the transportation industry. Systems performance has benefited from these developments, since a rapid and extensive growth has been demonstrated over the past 10 years. These developments however do have their drawbacks on safety. Despite the efforts to maintain safety at the present high levels, risk and safety issues are in the spotlights of the political debate and in the press. A small series of serious accidents has fuelled the debate on acceptability of risk. New players appear in the risk debate and decision-making arena, focusing on issues that have not taken into account before, such as victim care and rescue and emergency performance. This involvement causes considerable change in the way risk is perceived by all

In D. de Waard, K.A. Brookhuis, R. van Egmond, and Th. Boersema (Eds.) (2005), *Human Factors in Design, Safety, and Management* (pp. 479 - 491). Maastricht, the Netherlands: Shaker Publishing.