

A Human Performance Standard of Excellence for the Air Traffic Industry

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1. Introduction

People create safety. This is perhaps truer in the air traffic industry than some of the other industries where human performance is seen as a key driver for business and safety performance, because the air traffic controller is handling live traffic in real-time. Without people, there is no air traffic business. Yet it has been known for some time that the discipline that supports human performance, namely Human Factors, is often under-utilised in air traffic design, development, and operation. This seemed to be for several reasons:

1. There was not a clear understanding of human performance and the supporting discipline of Human Factors.
2. Many, indeed most Air Navigation Service Providers (ANSPs) have gotten along fine without recourse to Human Factors (they all have Human Resources departments), so why do they need it?
3. Different Human Factors people often seem to be saying different things, which makes it confusing as to know how to move forward

This led to the development of a White Paper on Human Performance, explaining what HF was, and how it could help ANSPs, evidenced by case studies. However, while this document was well-received, little changed in terms of uptake of HF by the industry.

2. Method

One approach that has worked for Safety in the ATM industry is benchmarking. A 'Standard of Excellence for Safety Management Maturity' was developed by CANSO (the Civil Air Navigation Services Organisation) and helped ANSPs see what their neighbours were doing, and what steps they could take. Importantly, the approach is scalable to different sizes of ANSP.

3. Results

The EUROCONTROL-FAA Action Plan 15 (Safety Research) group was asked by CANSO to develop a Human Performance Standard of Excellence for the industry. The first task was to determine the human performance landscape. Twelve elements were defined (e.g. teamwork, selection, impact of change, roles and responsibilities, etc.). One in particular (organisational focus on human performance) has an over-arching impact as it concerns the organisation's degree of focus on human performance, as evidenced by the amount of resources it is willing to invest in Human Factors support.

Each of these elements was then elucidated and scaled (see example below) so that ANSPs could see where they ‘fit’ on each element, and what the next steps might be.

This paper highlights the main arguments for safety culture that work at senior executive level, as well as insights into what they feel really matters in safety culture and Just Culture, and how both of these should be led from the top. It also documents all comments related to Human Factors as mentioned by several of the CEOs.

The advantages of this approach are that it enables ANSPs to consider the following:

- Which elements of human performance should we focus on?
- Where are we doing well, where would improvements help business performance?
- What are our peers and future ANSP partners doing in this area?
- How far do we need to go, considering our size and scale of operations?
- What are the next steps to take?

The HPSoE has now been trialled with a dozen ANSPs worldwide (see below), all of whom found it relevant and useful, and relatively easy to apply. Importantly, for the first time it gave many of them an ‘outsider’s’ view on where their strengths and weaknesses are in managing Human Performance. The next step is to develop the HPSoE for full implementation at the CANSO (global) level. The current (AP15) version of the HPSoE will be made available publicly in case other industries are interested in tailoring the approach.

Objective	Initiating	Planning / Initial Implementation	Implementing	Managing & Measuring	Continuous Improvement
To provide a consistent and reliable level of Human Performance which ensures a safe, efficient and high quality level of service.	<p>There is no recognition of the importance of the role that people play in delivering a safe, efficient and high quality level of service.</p> <p>The ANSP is in continual compliance with the minimum regulatory standards in respect of licencing, training, reporting etc.</p>	<p>There is some recognition of the value that improving Human Performance can bring. The company has functions responsible for areas such as training, occupational health, investigations etc.</p> <p>Initial planning is in place to improve Human Performance but only after problems are identified.</p>	<p>There is a policy in place that addresses human performance in a systemic way (e.g. inside existing policies). Human Performance is being actively improved.</p> <p>There is recognition of the value that Human Factors expertise can bring. A person is identified with a clear remit, budget and program for addressing Human Factors issues and they are embedded within a division of the organisation.</p>	<p>Key Performance Indicators are in place to measure Human Performance and to identify priorities for improvement.</p> <p>The Human Factors capability (formal HF qualification ie. academic degree, internal/ external) available is tailored and proportionate to the maturity and complexity of the ANSP. They are operating within several divisions of the organisation.</p>	<p>HP is built into the organisation’s strategic vision/ business plan.</p> <p>The role of the human is recognised as being integral to the success of the organisation and is considered early in concept development.</p> <p>The ANSP supports and uses Human Factors research & development (e.g. collaboration with universities on specific research questions e.g. Master/ PhD students, external publications etc.) as a means of gaining intelligence on how to improve Human Performance.</p>