

OPERATIONAL CHALLENGES AND OPPORTUNITIES FOR ANSPs

With air navigation service providers (ANSPs) and staff going through a period of many changes, challenges and opportunities have emerged in terms of human and organisational factors in operations. To get a flavour of some of these, various representatives of seven European ANSPs – from large to small – were asked to reflect on some of the challenges and opportunities on their minds.

Malta ATS

Francis Bezzina (Senior Head Safety, Quality, Security and Compliance)

"In my opinion, the biggest challenge is that we need to start thinking about areas which perhaps we have ignored in the past. These issues result not from serious safety occurrences, but from the effects of geopolitical tensions, pandemics, loss of income, furloughs, and natural disasters. We are living in a new world where a pandemic changed the entire fabric. Relatives were lost or affected by terrible sickness. There are fears that our families can be affected. The financial situation of ANSPs will probably never be the same. We must do more with less, with jobs in the firing line, and salaries that may go down, lowering standards of living. The entire landscape of our normality has changed, maybe forever. There are new dragons in the human factors areas and consequently our organisations, which may never be what we have been used to before the pandemic. The biggest opportunity is that we learn from this nightmare and do something before we are caught out again."

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HungaroControl (Hungary)

Ágnes Zörényi (Head of SQM System Development and Monitoring Unit)

Mihály Kurucz (Director of Safety, Quality and Internal Audit)

"At the present time, we have four key challenges. The first is maintaining competencies with such low traffic levels. ATCOs' and trainees' abilities to handle higher traffic load has to be tested in a simulator (in compliance with pandemic rules), and for trainees there is a lack of experience of handling situations in live traffic. Maintaining instructor competencies is a further challenge, although there are virtual instructor trainings. Flexible adaptation of hybrid training is important.

The second is that integration of students and new employees into the organisation has changed completely. Team building has taken place virtually, and the integration of new colleagues changes managers' tasks. It is also a challenge to bridge the gap between support staff and ATCOs without a degradation of the support service level.

The third challenge concerns stress management and mental fitness. What are the effects of cost-cutting and ANSP's economic difficulties on employees' stress levels and possibilities are there for stress management? Does



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this tension affect everyday work, and if so, how? Similar questions arise for new aspects of fatigue management, focusing on emotional fatigue at an organisational level. There is a need to provide security in a time of uncertainty. Building and sustaining mental resilience has become a key focus, including for TRM.

Fourth, for management, online leadership, communication and information sharing pose a big challenge, along with change management. There is a constant need for re-planning and decision-making. In the near future, there is a need to reconsider staff management and resource management methodologies, as well as management of the effects of uneven workload.

There are some new possibilities. One of these is rethinking and retailoring the organisation to respond quickly to challenges. Communication will need to be adapted to gain up-to-date knowledge about employees, and for the employees to gain up-to-date knowledge about the organisation. More generally, there are possibilities to move from formal, fixed, slow processes towards less formal, flexible and quick processes. We can build on recent experience to facilitate of organisational learning.”

Austro Control GmbH (Austria)

Lea Sophie Vink (Head of Human Performance)

“At Austro Control, one of the most pressing human and organisational factors issues has been the impact to confidence, resilience and other non-technical skills as a result of the pandemic. We have seen major shifts in the working cultures amongst teams as people have moved to home office and more isolation. For controllers, TRM and CISM have helped to shield and protect this, but for the wider company, more lessons need to be adopted from the ATM operation. In the future, Austro Control is focusing on human factors in change management as we look to implement strategies to not only recover from the pandemic, but also to modernise and optimise our network and facilities. We have found that communication is going to be vital, as fears and worries about the future of our industry are present and important to consider and address. We look now to the CANSO standards of excellence for human performance management to help guide us in all of these challenges.”

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Bosnia and Herzegovina Air Navigation Services Agency (BHANSa)

Vlado Jurić (Safety Manager)

Doroteja Lovrić (Safety Expert)

“With the emergence of the COVID-19 pandemic in Bosnia and Herzegovina, BHANSa has faced the challenges of organising work in the new working conditions. A significant fear was loss of competencies due to significantly reduced traffic. Official approval was obtained for a derogation from the application of by-laws enacted by the Bosnia and Herzegovina Directorate of Civil Aviation. BHANSa ensured that ATCOs can extend validation of licence endorsement for a period of four months in case it were not possible to fully meet the regulatory requirements. Another challenge was to organise work without disrupting business continuity. Despite the difficulties, we managed to organise this.

BHANSa introduced the Emergency Management Centre to prepare measures tackling coronavirus. We managed to keep continuity of work by moving all internal and external communication online, including official communication with our regulator. All theoretical training for operational staff was done online and with improvement of the pandemic situation, we managed to organise simulator training for ATCOs.”

NAV Portugal

António Retorta (Safety and Security Directorate Safety Manager)

"In terms of human factors, one of the biggest challenges in the present and near future has to be the stress and fatigue involved in dealing with the crisis. This is not only with regard to the more obvious health component, but also with both the economic concerns and job stability concerns that have come in the aftermath of COVID-19. Adding anxiety to an already stressful profession is definitely not the best combination. In terms of organisational factors, the challenge will be to balance the need to cut costs, due to the lack of revenue, whilst not undermining the ability of the organisation to deal with the challenges and demands of recovery. This recovery will eventually occur, and the challenges will be even more significant if the recovery occurs quickly.

The biggest challenge in the near future and beyond is simultaneously the biggest opportunity. The question is how to combine growing digitalisation (AI, blockchain, etc) in the sector and its integration in the provision of our service, combined with the human aspect."

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DFS (Germany)

Jörg Leonhardt (Head of UX and System Design)

"One of the big challenges for the near future is how we can close the gap between existing and forced developments in automation and digitalisation, and the human operator. The gap is getting bigger as automation is increasing and already taking over some human tasks. So far, it is still balanced, though we can see a trend and some imbalances emerging. We need to establish a solid human-centred system engineering process to achieve an integrated human-machine system, or a joint cognitive system. This includes, beside the basic design process, the impact on selection criteria, training of operators and perhaps new roles in the ATM system. The corresponding opportunity is that we can achieve a human system integration and build a more efficient, flexible and safe overall ATM system."


Reference

<https://www.eurocontrol.int/publication/human-factors-integration-atm-system-design>

FerroNATS Air Traffic Services S.A. (Spain)

Pablo Caballero (Director General)

"The unprecedented situation that we are currently living in our industry due to the COVID-19 pandemic crisis gives us also unprecedented opportunities to continue adapting the role of the air traffic controller in our organisations to a highly demanding future.

Never have we had this level of overcapacity, with excellent available skills, and we have the obligation to keep our teams fully engaged. The capacity to adapt to change will be essential both in the short-term to face traffic levels variability or expand the responsibilities of ATCOs and in the midterm to adopt new technologies in the working environment." 

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