STRESS PREVENTION THROUGH ORGANISATIONAL-LEVEL INTERVENTIONS

Stress management by air navigation service providers is required by European regulations, but implementation is not easy. In this article, **Paola Tomasello, Simone Pozzi, Giacomo Dusi, Gianluca Del Pinto** and **Stefano Bonelli** outline four organisation-level interventions that can benefit individuals and organisations.

KEY POINTS

- **The changing nature of air traffic management is likely to change the nature of stress experienced by controllers.**

- **European Regulation 2017/373 requires that air navigation service providers take steps to manage air traffic controllers' stress and provide education and information programmes on the prevention of stress.**

- **Four organisational-level interventions are proposed that can benefit individuals and organisations: surveys, work-related stress risk assessment, reporting, and new peer profiles.**

The 21st century ATC workplace is a fast-paced, dynamic and stimulating environment, with lots of opportunities and rewards for those who work within it. But there is a downside. The growing complexity of air traffic, changing airline business models, and the introduction of highly automated systems can increase stress levels, exposing ATC personnel to serious health risks.

For instance, the introduction of semi-automated conflict detection and resolution tools will bring about changes in the controllers' role, moving them to a more supervisory position. In this scenario, the major cause of stress is no longer the combination of high mental load with time pressure, as in 'traditional' ATC. Stress is more likely to be induced by limited scope for decision-making and reduced control, along with the sudden need to take over in case of any malfunctions of the automated systems.

Air traffic controllers are well adapted to cope with short-term exposure to pressure, but there will be greater difficulty in coping with prolonged intensive pressure. Stress management involves skills that people need to develop and maintain, not only as individuals, but as companies. To what extent can companies afford to ignore stress effects in terms of higher turnover, absenteeism, sick leave, effects on organisational reputation, and workers' legal actions? And what is the cost in terms of degraded performance and safety?

The Regulatory framework addresses these issues. The European Regulation 2017/373 (point ATS.OR.200), states that an Air Navigation Service Provider shall:

- develop and maintain a policy for the management of air traffic controllers' stress
- provide air traffic controllers with education and information programmes on the prevention of stress.

Implementing this is not an easy task. Good practices for the implementation of acceptable means of compliance are still to be consolidated. It is also difficult to determine the economic return of a stress management system. Four organisational-level interventions are proposed below that can benefit individuals and organisations.

Surveys

Surveys work in the same way as diagnostic tools work for doctors. They aim at measuring stress levels within an organisation and identifying their causes. Proactive awareness of these factors helps to prevent stress effects increasing until they become hazardous, acting in the same way as doctors' early awareness of the causes of symptoms helps to prevent the disruptive effects of illnesses.

Several case studies about the use of surveys to measure stress levels in the workforce are reported in literature. Among them, in 2004 British Telecom launched 'STREAM', a tool designed to mitigate stress in the workforce. STREAM was intended to help managers and their staff identify negative stress effects on wellbeing. After completing a questionnaire, workers were emailed a report with a stress assessment on three levels: red, orange, and green. If employees were rated at the red or orange level, they also received information on how they could reduce stress. A report was also sent to the employee's manager. In case of red or orange assessment, the manager had an obligation to meet the employee in person to discuss the relevant issues and agree on actions to be taken.

There are other standard approaches, such as the Health and Safety Executive Management Standard approach (United Kingdom) and the INAIL-ISPESL model (Italy). The Perceived Stress Scale and the General Health Questionnaire are often reported as reference questionnaires.

Regardless of the approach and tools selected, it is important to agree the use of sensitive data. The more workers understand that feedback will benefit their work life, the more surveys can be a source for reliable information. Similarly, employees will be keener on participating in surveys if the use of sensitive data is oriented by just culture principles.

Work-Related Stress Risk Assessment

Risk assessments are well established in aviation. What is proposed here is to enlarge their scope to include also an assessment of work-related stress risk, and its potential impact on safety, performance and organisational costs. The main objective is to mitigate any critical work-related stress issues in order to improve the working conditions and levels of protection of workers' health and safety. To ensure effectiveness the process must involve workers and include the following two phases.

The first phase involves detecting work-related stress via valid risk indicators, including:

- **work-related stress effects,** including, for example: errors and incident reports; sick leave; staff turnover; penalties; specific and frequent formal complaints by workers to company health practitioners
- **work content aspects,** including, for example: work environment and equipment; workload and pace of work; working hours and shifts; correspondence between workers' skills and professional requirements for accomplishing tasks
- **work context factors,** including, for example: role allocation within the organisation; autonomy, control and scope of decision-making; career evolution and development; team cooperation; and available peer support.

The second phase concerns intervention. An intervention strategy is implemented and its impact is monitored, to reduce the risk of harm to workers and the company.

Reporting

Incident reporting is also a widely acknowledged practice in ATC. Would it be feasible to enlarge its scope to include the opportunity for controllers to complete a self-declaration of temporary incapacitation due to acute stress or burnout? Such an approach may complement the implementing rules of the European Regulations 376/2014 and 340/2015.

Regulation 376/14 states that safety reports are mandatory when they concern *"Fatigue that affects or could*

affect the ability to safely perform air traffic or air navigation functions". Controllers must fill in a safety report if fatigue symptoms occur during job. Regulation 340/15 (at the ATCO.MED.A.20) prescribes that *"Licence holders shall not exercise the privileges of their licence at any time when they are aware of any decrease in their medical fitness which might render them unable to safely exercise those privileges"*. This is the case when stress reaches a level that may cause health disorders.

In case stress-related incapacitation is reported, the controller could be made exempt from operational functions and could be employed in non-operational tasks. Staying in the workplace in some cases might be useful to speed up the recovery period. When the acute stress or burnout symptoms have been addressed, the controller may have the possibility of declaring him- or herself fit again to carry out his duties.

However, several open questions are to be addressed: to what extent is the self-perception of stress reliable? Would it be useful to improve it via training? Also, would the practice of stress self-declaration be socially accepted? In other words, to what extent have we overcome the stigma related to psychological distress? Finally, could this stress self-declaration report submission be financially damaging for the reporter, and can we develop protections against this disincentive to report?

New Peer Profiles

In aviation, peer support programmes already exist. The question is if they still meet the requirements of the European regulations. In fact, they are often highly reactive. Peer support to recover from excessive stress may arrive too late, for wellbeing or human performance, or both.

The EU has foreseen in new regulations that the protection of physical and mental health must take place when the person is still fit. In line with this, new peer profiles must be created to make peer support programmes more proactive and all-inclusive. Stressful situations must be prevented by acting on their sources, rather than solely treating their effects.

Table 1: Pros and cons of the four interventions

	Intervention	Pros	Cons
1	Surveys	Identification of stress levels and sources	Sensitive data management
2	Work-related stress risk assessment	Identification of stress impact on workers' health, safety and organisational costs	Requirements for human and material resources
3	Reporting	Enabler of a database of stress-related incidents Protection of safety and workers' health	Reliability of self-declaration of stress Potential financial loss Potential stigmatisation
4	New peer profiles	Direct involvement of ATC personnel in stress management	Requirements for training and supervision

Conclusions

The proposed interventions are based on growing evidence that stress management programmes have a beneficial impact on daily work especially when they embrace both individual and organisational factors. Positive effects include the improvement of employees' effectiveness and motivation at work, as individuals and teams. These data demonstrate the importance of wellbeing to business. ⤴

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