Centre *for* Aviation Psychology

THE CENTRE FOR AVIATION PSYCHOLOGY

Returning to work

Seatbelts (loosely) fastened

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INTRODUCTION

Pandemic, social distancing, infection control and varying government responses affecting the airline industry both in the UK and globally, have likely been the most significant long-term and debilitating disruptors to air crew, employment security and work patterns since World War II.

An eminent Professor of Clinical Psychology at the University of Sheffield, Professor Richard Bentall, is conducting important and topical research into the psychological effects of Covid-19. His views and findings are apt and relevant to us all:

> "The Covid-19 pandemic has led to unprecedented global restrictions on freedom of movement, and social and economic activity. Pandemics may cause fear in the population, affecting behaviour which in turn may propagate or restrict the further spread of the virus. Social and economic restrictions may also have a major impact on population mental health; especially affecting vulnerable groups, influencing the nation's ability to recover once the pandemic is over."

As the travel industry prepares to return to work, albeit in unpredictable and seemingly hesitant ways, we do not hear a collective cry of relief. While there are, of course, clear and welcome aspects to returning to work, there is also apprehension, fear and some mixed feelings about returning to the line. As aviation and clinical psychologists who support over 27,000 aircrew within the EU, UK and further afield; across many AOCs - including large airlines, rotary wing and business aviation operators - and with extensive links with colleagues in the Far East, USA, Canada, Australia, New Zealand and South Africa; we - the team at the Centre for Aviation Psychology (CAP) - have first-hand experience of the challenges aircrew now face preparing to return to work.

In this paper, we highlight some of the challenges that crew now face, and also share some hints and tips on boosting cognitive performance and giving your brain a 'work out' on your return-to-work path.

Challenges you may have faced ...

Let us for a moment focus on some of the challenges and concerns that some aircrews have highlighted:

- Financial concerns
- Lowered confidence
- Skills fade
- Job losses that may yet come
- Assessments, tests, training and simulators
- Will my uniform still fit?
- Coping with a demotion
- Travelling to destinations where one is confined to (locked in) an hotel room
- Transition from a passenger aircraft being used as a freighter to its original passenger function
- Maintaining social distance in confined work spaces
- Disruption to your career trajectory and aspirations (for example, gaining your command, progressing to becoming a training captain, job mobility etc
- How family and loved ones will cope with our return to work.

It is not a given that everyone returning to work still wants their job. The pandemic may have raised questions about employment security, income and career stability. Some crew have volunteered or gained employment outside of aviation or in related areas during the pandemic. A few will be permanently lost to the aviation sector, having been made redundant or gained employment in another sector. This is against a backdrop where there are distant warning signs that there will be a pilot shortage in the next few years, which further generates feelings of confusion and uncertainty.

For those preparing to return to work, we have some hints and tips to share - based on neuroscience findings - about how to boost brain function and sharpen your cognitive skills, in order to mentally improve your cognitive performance.

Our brain work-out suggestions

Findings from neurological science strongly indicate that we can boost our brain performance, and in this sense, we should consider 'exercising' the brain. It goes without saying that pilots rely heavily on brain function in order to execute their tasks; as do air traffic controllers, ground maintenance engineers and cabin crew.

The main domains that in which we can exercise the brain include memory, brain speed, attention, social skills, intelligence, navigation, eye-hand co-ordination, verbal skills, decision making and our reactions. During the pandemic, many aircrew will have 'down-geared' their lives. Work patterns will have changed and life may have become more predictable.

Engaging one's brain with the intensity and to the extent that one does in the course of flight operations, is unlikely to have occurred. It is possible that, for some, there is a temporary state of cognitive decline in relation to certain brain functions. The good news is that we can completely recover this and even exceed our previous performance levels. We need to give this some focus and time, and target particular exercises that will specifically boost cognitive functioning.

1. Take ownership of professional development to improve performance and resilience

Resilience is the intrinsic ability of a crew to adjust its behavioural functioning prior to, during, or following changes and disturbances, so that it can sustain required operational performance under both expected and unexpected conditions.

There have been numerous safety notices published by various agencies such as IATA, EASA and the UK CAA, to highlight the importance of maintaining effective human performance while developing operational resilience (confidence and competence). While pilots may not be able to access a full flight simulator, there are key alternative activities that individuals or groups can practice:

- Connect virtually with peers to work through scenarios to maintain non-technical competencies and develop self-evaluation practices.
- Practice 'Arm Chair Flying' to build confidence through exposure to technical procedures
- To help with return to flying preparation, review IATA, EASA and UK CAA Operational Safety Notices that identify key safety issues facing the industry as a result of the pandemic.
- With your peers, discuss a defensive flying strategy and effective identification of new threats pilots face as a result of a different operational environment.
- Generate mitigation strategies and mini briefs to update situational awareness and reduce the possible startle effects of an unexpected event

2. Level with yourself

The last 15 months has been a tough time for everyone, and pilots in particular. We have all had to make substantial adjustments in the ways we have managed our daily lives, our expectations of the future and our profession.

If you haven't already, now is a good time to sit down, take stock and articulate what you want from your career going forward. Whether you do this on your own or with a trusted partner or friend, it is important to consolidate all those home truths and realisations about what is most important to you and how you want your career to progress.

Some of these decisions may be big ones and require careful planning; others, more a balancing of expectations. Either way, you will feel more in control of your circumstances if you make an active decision about it (even if that is to do nothing!) rather than finding yourself just drifting along with whatever comes next.

3. Acknowledge changes within your organisation

Your return to work may further be complicated by finding that you are returning to a changed or new organisation.

During the pandemic, roles may have changed and merged, people may have left the airline and some functions absorbed into other roles, while some offices may not be staffed. Flights ops, pilot managers, duty managers, Human Resources and training departments may be running on skeleton staff, working remotely, or may be completely reorganised.

It may feel bewildering being back in an outwardly familiar airline that has been fundamentally changed by the pandemic. Just as the organisation will have changed, so might you in terms of what you might want from them in the future, or even how you see them now. It is important to take stock of this and assess and address your needs. They may be practical (e.g. who do I call when X happens) to existential (e.g. what can I reasonably expect from my employer).

4. Work on your Plan B (and Plan C)

In the same way that you would never go flying without planning your alternate destinations, developing a job Plan B and Plan C will help you navigate the uncertainties of employment insecurities.

Many have been forced into this position involuntarily and navigated this to the best of their abilities and resources. For many on furlough who have been bunkering down and feeling confident that their company and/or seniority will see them through, this confidence will have diminished as the travel consequences of this pandemic persist.

One of best ways of restoring control and confidence in the future is to actively dust off and attend to your alternative plans and options, ensuring they are ready to activate should the unthinkable happen.

5. Manage your mood

Research has demonstrated that stress, anxiety and worry can directly impair memory, attention, mood and our ability to learn. Stress can therefore, degrade emotional wellbeing.
The starting point for any brain work-out should be to identify, address and remedy any significant psychological challenges. This can be done by noting specific challenges, chatting with a pilot peer in a peer support setting, asking a trusted friend or one's partner to give feedback about how we appear to be fairing and also, completing some online self-scoring tests such as the Becks Depression Inventory. Attending to and improving one's mental health and wellbeing is not the same as having an identified and diagnosed mental health problem that may affect crew licensing. If in any doubt, an AME or GP will be able to provide signposting to expert aviation mental health services.

Chronic stress can rewire the brain and this in turn will likely impede skills acquisition, task completion and other forms of executive functioning.

6. Attend to your sleep

It is well known that the brain requires sleep in order to restore optimum functioning and also to consolidate experiences, learning and memory. That is even apart from the emotional benefits of good, sound and regular sleep. We should, therefore, think of sleep as beneficial, and not merely a necessity and a waste of time. Sleep helps with emotional regulation as much as it does with chemical regulation in the body. Without good and regular sleep, we are more susceptible to stress, mood changes and health challenges. Problems with sleep can especially affect the frontal lobe of the brain and, therefore, can alter decision-making and emotional regulation.

Many pilots report to us that in the context of the pandemic, they have benefitted from more predictable and stable sleep patterns owing to the absence of work. Whilst this may be welcome, the return to work will likely pose a challenge to this for some. It is, therefore, important to ensure that sleep is prioritised in order to improve brain functioning.

In his book ***Why We Sleep***, Professor Matthew Walker suggests dealing with sleep in 90-minute cycles; particularly for shift workers with variable sleep patterns. The numerous 90-minute cycles ensure quality deep sleep and REM has been achieved during the night. The positive effects can include the brain producing delta waves and our bodies repairing and restoring themselves, plus other hormonal benefits. This offers a solution for pilots to control when they need to sleep and wake up when operating through different time zones. Pilots could use this downtime period to modify their sleep in terms of cycles in preparation for a return to operational flying as the industry recovers.

7. Train the brain

Scientists have recognised that we can delay cognitive decline by engaging in activities that challenge the mind. There are a vast number of activities which count in this regard. These include learning a new language, starting a new hobby or skill, enjoying mind challenging tasks such as crosswords and Sudoku, among many others.

Having an appetite for curiosity and creativity is core to this. New pathways are opened up in the brain when we engage in unfamiliar and challenging tasks. This helps to improve communication within the brain, as well as 'stretch' its capacity. One should also not underestimate the benefits of familiar and accessible brain development methods such as reading a book or even keeping a diary.

8. Engage in physical activity

Most aircrew are familiar with the importance of regular exercise as a way not only to keep physically fit, but also to improve mental agility. Physical activity is crucial to brain health and cognitive functioning. Not only is there often a sense of wellbeing that accompanies exercise, but research has found that certain hormones which are excreted during exercise can improve mental focus, mood and memory.

Most exercises have a strong aerobic component and, therefore, whilst lifting heavy weights may be a personal interest and challenge, the greater benefits come with increasing heart rate gained through running, cycling, swimming and related exercises. Improved motor skills and mental arithmetic skills are also associated with cardiovascular fitness: another reason to regularly exercise.

9. Feed the brain healthy foods

There are a range of foods and nutrients which have been found to improve brain functioning and have also been demonstrated to improve mental wellbeing and cognitive abilities.

These include -

- Oily fish
- Dark chocolate
- Berries
- Nuts and seeds
- Whole grains
- Coffee
- Avocados
- Peanuts
- Eggs
- Broccoli
- Kale
- Spirulina
- Green tea

10. Work on your social connections

Research has found that feeling isolated or disconnected socially can directly affect hormonal changes in the body. For example, Cortisol - the stress hormone - may increase as a result of disrupted sleep and raised blood pressure. It can also affect the body at the cellular level, causing inflammation of cells and an immune response. Wellbeing may then be adversely affected. These social changes and the social and physical changes that may arise when we are separated or disconnected from loved ones, can reduce cognitive function and limit optimal brain function. Ensure you stay in touch with friends through whatever means possible; virtually or face-to-face: meet ups, clubs, virtual gatherings, discussion groups etc. Remember, social media is not always conducive to helping wellbeing, so make an effort to re-connect with people directly too.

11. Mindfulness and meditation

Meditation and, in particular mindfulness, have been shown to reduce stress and slow down cognitive decline, particularly with respect to disorders such as Alzheimer's disease and other dementias.

Mindfulness and meditation have the primary effect of lowering the heart rate and, therefore, can assist in improving

Summary

The above strategies may help to boost cognitive functioning and provide a focus at a time of increasing stress when job- and work-related issues come to the fore, amidst the changes we are witnessing across the travel industry.

There are further steps that you can take in order to improve your sense of wellbeing during these changes:

- Connect with a pilot or line manager in order to better understand what is going on in the airline and what training and return to work measures are being put in place.
- Contact your company-sponsored - though independent - peer support organisation to have a confidential chat with a colleague who will be able to help you to manage challenges that you may currently face.
- Connect with a pilot mentor/coaching organisation to help improve performance and resilience in preparation for a return to operational flying.
- Start to look at manuals to acclimatise your brain to the work setting.
- Use mirrors or glass to write down your aide-memoirs, (especially memory item check lists), so that you have frequent exposure to them.
- Discuss with your AME or GP any health or mental health concerns that you may have.
- Adopt a growth mindset: now is the time for engaging with familiar skills as well as learning new ones.
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The Centre *for* Aviation Psychology promotes psychological well-being through confidential access to our specialist psychologists and resources.

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