Safely Navigating the Industry Recovery

IATA   canso   IFATCA   IFALPA

Bulletin 1

Mitigating Human Factors Hazards in the context of the operating environment during and post COVID-19

1. Background

Many aviation-related organizations have taken steps to help crews, dispatchers and controllers deal with changes in the physical and psychosocial environment owing to the impact of COVID-19, both at work and in their personal lives. Maintaining this focus on COVID-related human factors challenges and staying proactive is important to ensuring continued high levels of safety as operations ramp up. Appropriate resources and tools to minimize the mental health impact of COVID-19, including peer support programs, will play an important role in ensuring staff well-being throughout the recovery.

Restarting a complex system, such as aviation, is not a linear process. The impact on staff in airlines, ATCOs and the aviation supply chain could lead to a different risk landscape which can, by extension, introduce new operational and safety challenges. Additionally, traffic recovery is expected to be volatile and the ramp up may be different than anticipated. Therefore, local safety management systems (SMS) should address COVID-19 related concerns including the biological and psycho-social risks and their interactions with aviation safety. In addition, creating a supportive environment for aviation personnel can help maintain self-wellbeing.

To better understand the impact that post COVID-19 operations-related challenges could have on human factors, the Civil Air Navigation Services Organisation (CANSO), the International Federation of Air Traffic Controllers' Associations (IFATCA), the International Federation of Air Line Pilots' Associations (IFALPA) and the International Air Transport Association (IATA) conducted a safety risk assessment. The safety risk assessment (SRA) example, provided at the end of this bulletin, was reviewed, and used to shape a webinar organized on 20 May 2021. This joint bulletin is an update of Bulletin-1, which was issued in 2020 and is a result of the revised SRA and the webinar.

2. Human Factors Related Challenges During Recovery

Continued Change in Health and Operational Environment

Health protocols are evolving with the rollout of vaccines, albeit not uniformly in all countries. There is also a concern of new waves triggered by novel variants. The US Centers for Disease Control and Prevention (CDC) has advised that people who have been vaccinated can resume activities without wearing a mask or staying 2 meters apart. However, in different regions, local regulation is still requiring crew and other aviation professionals to wear masks. Removal of health protocols, like the requirement for proof of a negative COVID-19 test result, or social distancing will most likely be done in phases and may not be aligned in different regions. This will be particularly challenging for dispatchers to keep track of all requirements and for air crew to ensure compliance with different and changing protocols. Additionally, in the short- and medium-term, aviation professionals may not be able to socialize and connect as in pre-COVID times. This affects team dynamics as well as the morale of individuals.

With the added layers in the aviation system, e.g health and sanitary measures, there are new interactions, new system interdependencies and additional levels of coordination. In the short term, there may be fast ramp up of air traffic with added complexity. In the long-term, traffic recovery to pre-COVID levels may be at a slower rate; however complexity will increase as traffic levels grow. As traffic levels and complexity trend upwards, increasing cognitive engagement will be required in all safety critical functions. Organizations should also recognize that most individuals have adjusted to lifestyle changes and have developed new habits since the outbreak of the pandemic. Therefore, pre-COVID-19 work patterns, assumptions and expectations will not be viable for the recovery phase. New dimensions to operational decision making may limit the degrees of freedom in tactical strategies. Changes in staffing levels and working patterns could have an impact on operational staff and potentially negatively impact system capacity.

Peer support programs provide a useful tool in these contexts. These programs provide confidential peer-based support and assistance where an aviation worker can discuss the challenges that they are facing with someone who understands their context. Often, such a discussion is sufficient for the worker to address the challenge, however the programs also act as a gateway to other resources should they be needed.

Recommended Mitigations
Increase frequency of internal briefings and communications to ensure that all aviation professionals are aware of changes in health protocols.
Increase awareness and understanding of challenges other stakeholders are facing (upstream or downstream the aviation supply chain).
Create a positive safety culture through the promotion of personal well-being and public safety.
Raise awareness among leadership and management to support well-being among aviation personnel, e.g. by encouraging empathy during performance reviews.
Implement adaptive supervision in harmony with the dynamic operations.
Continue to offer existing mental well-being resources.
Foster Crew Resource Management (CRM) and Team Resource Management (TRM).

Increasing Levels of Stress, Anxiety and External Distractions

External stressors and the different consequences associated with COVID-19, for example, family situation, local economy, etc., have increased the level of stress and anxiety for many aviation professionals. In addition, the emotional and psychological impact of such distractions have repercussions on the mental well-being of staff carrying out safety critical as well as non-safety critical functions. Organizations need to ensure a collaborative work climate that is sensitive to the consequences of the uncertainty that COVID related anxieties are introducing.

The psycho-social climate in the workplace is greatly influenced by job uncertainty. These concerns increase the levels of anxiety, and thereby stress, among aviation professionals. Increased levels of anxiety and stress could have a negative impact on the psycho-social climate in both operational and non-operational functions, which can influence safety critical functions. Additionally, the loss of experienced staff or "go-to" colleagues will not only impact the level of service or performance but will also impact other team members who lost not only a colleague but a mentor or a reference.

As air traffic volume increases, ATCOs and airline operational staff (dispatchers and crew) could experience sustained pressure to maintain on time performance in a new and continuously changing operational environment. Turnaround times are expected to increase due to additional safety and health measures associated with COVID-19 operations. However, there could be many factors and unknowns impacting operational performance, from additional ground time at a stop, to reductions in airport capacity due to parked aircraft.

Recommended Mitigations
Perform risk assessments, taking into account pandemic impacts of human performance.
Make available or extend appropriate resources and tools to minimize the mental health impact of COVID-19.
Educate operational staff on fitness for duty, self-care, and the availability of support programs.
Where required, establish a fit for duty policy.
Raise awareness amongst leadership and management to support wellbeing for aviation personnel.
Ensure sufficient safety promotion.
Ensure dynamic shift and breaks/holiday scheduling to ensure physical and mental well-being.

Pandemic Fatigue

After a prolonged period of dealing with the COVID-19 pandemic and all its consequences including the government measures such as lockdowns and restrictions on social gatherings, there are emerging signs of demotivation to follow recommended protective behaviors, which the World Health Organization (WHO) is characterizing as "pandemic fatigue". The pandemic fatigue experienced by some professionals may not be well

perceived by their colleagues who are still motivated to follow the policies, which could lead to reduced morale and can impact the work environment. This is especially particular for air crew who may be faced with situations where flying passengers are not motivated to follow health protocols while on board, which also adds to the stress and anxiety that crew are encountering due to COVID-19. Therefore, organizations should develop strategies to maintain and reinvigorate both passengers and aviation professionals' support of health protocols.

Recommended Mitigations
Conduct continuous review and adaptation of policies and procedures, especially with the vaccine roll-out.
Encourage the involvement of aviation professionals when reviewing policies and procedures, so they can fully understand the requirements and feel that they are part of the solution.
Lead by example (modelling of best practices).
Re-enforce mutual accountability.
Exercise empathy and strive to understand why people may have lost their motivation.

3. Recommendations

To utilize the best practices in this bulletin, the safety risk assessment in **Attachment – A** can be used as an example. However, individual organizations should conduct their own internal safety risk assessment prior to making any decision and include the rate for all their risks as per their internal policies and tolerance levels.

4. Additional Resources

Additional resources and information can be found through the following links:

- ➢ iata.org/en/programs/covid-19-resources-guidelines/
- ➢ ifatca.org/covid-19/
- ➢ canso.org/navigating-covid-19
- ➢ ifalpa.org/publications/covid-19-resources/
- ➢ icao.int/covid/Pages/

If you have any question or would like more information, please contact infrastructure@iata.org.

Attachment A – SRA Baseline Example

Human Factors during Recovery from COVID

Event	Hazards	Already Used Controls	Additional Mitigation Actions during Restart/Recovery from COVID
Constant change in health and operational procedures	• Increased stress levels due to non-standard operations. • Less effective CRM due to procedural changes. • Less effective communication. • Impact of changes in scheduling in rostering of crew • Risk of reduced dispatchers' ability to track all changes.	• CRM/TRM training • Human Factors Program • Briefing procedure • Information bulletins • Briefing medium/tool • Adaptive supervision in harmony with the dynamic operations. • Supervisory techniques clearly defined and communicated • Coordination procedures that support appropriate interventions where required. • Wellbeing programs and support	• Increased oversight • Provide all personnel with related brief and communications • Empathetic approach to performance/service level penalties • Practical Just Culture fostering a supportive work environment. • Airline internal communications can be expanded to include COVID-19 restrictions
Pressure, tiredness, stress, fatigue	• Reduced reporting • Tiredness and reduction in attentiveness • Emotional response and behaviors to stress • Loss of focus • Impatience	• Just Culture environment Risk assessment considering pandemic impacts on human performance. • Human Factors Program • Fit for duty policy • Wellness programs • Safety assurance processes	• Raise awareness among leadership and management to support well-being for aviation personnel. • Pro-active operational supervision
Increased frequency and volume of external distractions (i.e.: family, politics, economy, health)	Reduced focus	• Limitation of personal communication devices • Break schedule to accommodate the need to check personal issues	• Wellbeing programs and support • Increased oversight • Safety promotion • Revised break schedule
Rebellious behaviours in response to long term mitigation measures.	Drift from established COVID policies and procedures.	• Continuous review and adaptation of policies and procedures. • Leadership by example (modelling of best practices)	• Revised policies and engagement with evolving context of vaccine roll-out. • e-enforce mutual accountability