Safely Navigating the Industry Restart
Bulletin 2
Maintaining Competency for ATCOs and Dispatchers during and post COVID-19

1. Background

The aviation Industry has been facing several challenges since the beginning of the COVID-19 pandemic. One of the main impacts driving change in the industry is the ripple effect of lockdown measures and closing of borders. This situation has led to the inaccessibility of training facilities, such as simulators, and the suspension of medical checks that are not urgent. Licenses and recurrent training have been extended by regulators, and alternatives to in classroom training have been used. However, as this pandemic persists, there might be future challenges related to maintaining competency throughout and post COVID-19.

With changing traffic levels, new potential risks need to be considered. Long periods of low traffic could lead to a degradation of skills and experience of ATCOs because they are not handling complex or higher levels of traffic. At the same time, there could be short-term increases in traffic volume or complexity which, at a time of reduced staff, might result in ATCO overload and lead to an unacceptable reduction in safety margins.

Physical distancing requirements combined with low traffic levels could lead to prolonged periods of dispatchers not handling pre-COVID levels of flights. In addition to working less flights, dispatchers are working flights in unfamiliar theatres due to consolidation of desks, e.g. due to the addition of cargo-only charter flights.

Virtual (remote) training for aviation professionals is a platform that continues to grow and expand. However, to date it has not been widely used for assessing and maintaining competency in the ATCO and Dispatcher disciplines, and so the effectiveness of the platform continues to be debated.

In order to better understand the impact that COVID-19 could have on maintaining competency for ATCOs and dispatchers, a safety risk assessment (SRA) was carried out by Civil Air Navigation Services Organization (CANSO), International Federation of Air Traffic Controllers' Association (IFATCA) and International Air Transport Association (IATA). The SRA was used as a starting point for a webinar which was organized by the partners on June 25th, 2020.

This joint bulletin is a result of the SRA and the webinar and highlights key considerations for

maintaining competency for ATCOs and dispatchers.

2. Challenges related to Maintaining Competency During and Post COVID-19

The following sections exclude Ab Initio training and consider challenges related to maintaining currency and competency of ATCOs and dispatchers who are already on the line.

2.1 Variations in traffic combined with changes to workforce and sporadic operations

The working environment for ANSPs has changed due to reduced traffic levels and new operating norms. The new requirements for physical distancing are impacting the number of ATCOs per shift and the rotation of staff. Similarly, for dispatchers, new rosters and the increasing up-take of leave are reducing the number of dispatchers per shift. Some dispatchers are not going back to their desk for a month at a time.

As traffic levels and complexities continue to be dynamic during the restart of aviation, bringing back ATCOs and dispatchers could require additional attention to training and competency levels. This is would be particularly important when ATCOs and dispatchers have been exposed to limited traffic levels and flights, resulting in a potential risk of degradation of skills.

Mitigations

Incremental return, taking into consideration:

- **Agile scheduling**
- **Return to work training**
- **Additional Check points**
- **Awareness Campaigns**

Right sizing, taking into consideration

- **Find the optimum staffing level as traffic caries**
- **Diverse teams to account for different skills and training levels**

2.2 Challenges related to recurrent training and validation

Due to the lockdown measures that have been imposed in many jurisdictions, access to training facilities has been limited. In addition, many medical checks that were considered low priority have been delayed. This has limited the access of staff and trainers to simulators. In most cases, staff training, and validation have been postponed.

The postponement of training and validation has worked as a short-term solution to the challenge. However, in the long term there could be two main issues faced by ANSPs and airlines;

1. Risk of reduced competency which would require extensive ramp up training as traffic levels start building up; and

2. Potential back log of licensing and validation which will cause additional delays in training and licensing ramp up.

Mitigations

Work with stakeholders to schedule back-log of licensing and validations.

Use of on-line Training Modules.

Improved supervisions and check-in with staff.

Maintain mindfulness of staff workload.

Prioritize training for staff with extended training/licenses.

2.3 Limitations for On the Job Training (OJT)

The requirements for physical distancing limit the ability to continue with On the Job Training (OJT) and reduce the effectiveness of re-validation of dispatchers and operational controllers (ATCOs) and FISOs. For example, physical distancing requirements have limited "over the shoulder" validation. Lower traffic levels has reduced the overall effectiveness of OJT.

Due to these new elements affecting training and validation, skill degradation could go un-noticed. There is a potential risk of drifting from standard procedures. Skills that are usually acquired or emphasized during OJT could be reduced.

Mitigations

Increased post operational reviews using recordings.

Use PPE to make up for physical distance requirements.

Reduced revalidation validity.

Maintain mindfulness of staff workload.

On-line monitoring vs. adjacent or over the shoulder monitoring.

Increase performance checks.

Review check requirements to include simulation of high traffic.

2.4 Effectiveness of Virtual Training

COVID-19 has prompted the world to turn into an almost remote environment with virtual teams, virtual meetings and virtual training. Virtual (remote) training has not been widely used pre-COVID in certain disciplines of the aviation industry. The need to turn to virtual training gave rise to several challenges, some of which were pre-existing before the pandemic;

1. The availability of training instructors to deliver the courses

2. Technical barriers, e.g. poor internet connection in some locations

3. Less than optimal learning environment, e.g. due to lack of social interaction

4. Regulatory constraints

5. Limitation of virtual learning to theoretical training

Mitigations

Use simulator during ramp-up training.

Explore the use of virtual simulators.

Improve the quality and effectiveness of virtual training.

Remote assessments.

2.5 Maintaining Competency for handling contingency situations

With prolonged periods of low traffic, and handling of only nominal situations, there is a risk of reduced 'edge' in handling contingency situations. In addition, the pre-COVID 'what-if' scenarios for emergencies may not be applicable post-COVID. Airlines and ANSPs will need to re-visit their risk assessment and emergency plans to ensure that they are fit for purpose. New or modified plans will need to be communicated and rehearsed to reinforce contingency response procedures.

Mitigations

Review contingency plans and procedures.

New or modified contingency procedures need to be communicated.

Additional contingency training and rehearsals will be required to reinforce required skills.

3. Considerations for Training in the 'New Normal'

Some elements of the impact of COVID-19 could persist in the aviation system, even after restart. As airlines and ANSPs plan for restart in the 'new normal' environment adapting to physical distancing, remote working and virtual (remote) training should be considered to enable staff retention during and post COVID-19. This means that virtual training tools and capabilities could become a permanent part of training of skilled aviation professionals.

Within that context, exploring tools such as combinations of Augmented Reality (AR) and Virtual Reality (VR) in recurrent training could serve the industry in maintaining competency during and beyond COVID-19. The use of serious gaming to prepare and train for certain contingency scenarios could ensure the availability of skills needed to handle contingency situations.

Adapting training post COVID-19, will require additional work and research with training organizations and regulators to develop a training framework that is fit for the 'new normal' and makes use of technology. A revised training framework will most probably combine different layers of virtual modules, in-classroom and simulator sessions, and assessments.

4. Recommendations

In order to utilize the best practices in this bulletin, it is recommended to use the identified hazards and the example safety risk assessment in **Attachment – A** to conduct an internal safety risk assessment by individual organizations or companies.

5. Additional Resources

1. IFATCA "Coping with COVID-19" Guide: https://www.ifatca.org/wp-content/uploads/documents/guidance-material/ifatca-gm_coping.pdf

6. Get Involved

To provide your input and share your view, join one of our up-coming webinars. More details will be available on the following webpages;

➢ iata.org/en/events/webinars/

➢ ifatca.org

➢ canso.org/events

If you have any question or would like more information, please send an email to infrastructure@iata.org.

Bulletin 2
Maintaining Competency for ATCOs and Dispatchers during and post COVID-19

Event	Hazards	Consequence (worst case scenario)	Existing Controls	Risk Rating	Mitigation Action

Varying traffic levels combined with changes to workforce and sporadic operations	Reduced resources, competency, roster planning deficiencies.	Incident	• Licensing, training and recency requirements
			• Line Checks
				Tolerable (with existing control)	• Rightsizing
					• Incremental return to service to include:
					  o All stakeholders to work together to address planning schedules and manpower requirements
					  o Return to work training and briefs
					  o Increase supervision
					  o Launch awareness campaign

Lack of access to recurrent training	No improvement in proficiency and familiarization with procedures	Incident	• Online training • Sims sessions	Tolerable (with existing control)	• Explore enhancing online training options • Work with regulators and training organizations to address backlog of licenses and medical revalidations • Ensure staff have access to online training • Improved supervision for personnel with extended licenses • Be mindful of ATCO's workload • Prioritize sim-sessions for staff with extended licenses
Physical distancing preventing effective re-validation and OJT	• Skill degradation goes un-noticed • Drift from standard procedures • Degradation of skill that are usually acquired during OJT	Incident	• Supervision	Tolerable (with existing control)	• Increased post operational reviews using recordings • Use longer headsets • Use PPE to make up for physical distance requirements • Reduced the period for revalidation • Monitor from adjacent positions rather than over the shoulder • Increase performance checks • Review check requirements to include simulators with high traffic situations

Available virtual training not an effective replacement for simulator or classroom training	• Training needs not addressed properly. • No improvement in proficiency and/or familiarization with procedures	Incident	Competency assessments after recurrent training	**Tolerable (with existing control)**	• Use PPE to make up for physical distance requirements to perform simulator training when needed • Explore availability of remote/virtual simulators for training • Industry should study effectiveness of virtual training
Reduced competency in emerging contingency scenarios in a changing environment	Existing contingency procedures not adequate for the emerging risks	Incident	• Emergency Response Plans • Training	**Tolerable (with existing control)**	• Contingency procedures need to be reviewed and adapted to the changing scenario • New/modified contingency procedures need to be communicated, coordinated and exercised • Reinforce contingency training