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WORKING PAPER

ASSEMBLY — 41ST SESSION

TECHNICAL COMMITTEE

Agenda Item 30: Aviation Safety and Air Navigation Policy
30.3 Relevant Outcomes of the High-level Conference on COVID-19, Safety Stream (HLCC 2021)

STANDARDIZING OF WORKING PRACTICES DURING ABNORMAL TRAFFIC LEVELS WHILST MAINTAINING TRAINING EFFICIENCY

Presented by United Arab Emirates and supported by Bahrain, Kuwait, Oman, Qatar and Saudi Arabia

EXECUTIVE SUMMARY

During the recent network interruption caused by the COVID-19 Pandemic, GCC States have experienced Air Traffic Control Officer (ATCO) skills degradation risks and concerns. This paper presents the evolution in working practices proposed by the General Civil Aviation Authority (GCAA) of the United Arab Emirates (UAE), and other Gulf Cooperation Council (GCC) air navigation services providers (ANSPs) to prepare for any potential traffic downturns and also the expected return to normal traffic levels. The paper will address measures to enable the continuation of training and allow skills maintenance during very low traffic periods and propose steps to mitigate this risk and prepare ATCOs for the predicted return of normal traffic levels and protecting training continuation during severe industry downturns.

Action: The Assembly is invited to:

a) note the information in this paper;
b) request ICAO to develop guidance material and provide tools to Member States related to air traffic controller competencies and skill degradations in cases of traffic downturns; and
c) encourage Member States ANSPs to update training plans, simulator capabilities and exercises as well as training personnel to introduce measures mitigating the risk of ATCOs skills degradation.

Strategic Objectives:	Increase the capacity and improve the efficiency of the global civil aviation system
Financial implications:	Nil
References:	Doc 10004, *2020-2022 Global Aviation Safety Plan*, 2.3/2.4

1. INTRODUCTION

1.1 The impact on the aviation industry across the globe has been significant over the last two years, with an unprecedented reduction in traffic levels in many regions. The longer this downturn continued, the higher the risk became that operational staff would be unable to maintain their skills and competencies, leading to the increased risk when handling busier mid and post-recovery traffic levels. Due to this and the implementation of COVID-19 protection measures, training was suspended in many countries. Restarting these programs will be time-consuming and require resources that have not been utilised in a long time. Where training was continued, it was done so in a very low traffic live environment with many training hours logged with little or no traffic in the sector.

1.2 Across the GCC, many of the processes and procedures evolved during this time to preserve the integrity of training and competency programs. In the GCC ANSPs have the privilege of being able to utilize simulators representative of the operational environment. This benefit allowed them to react to the complications caused by the severe reduction in operational traffic by re-assigning staff to maintain proficiency at the required level in a simulated environment. This situation was unprecedented, many of the resolutions had to be individually conceived, which required close cooperation with the regulating authority prior to implementation.

1.3 During the recovery phase of network interruption caused by the COVID-19 Pandemic, the GCC has witnessed a significant increase in traffic, with current figures up to over 80 per cent of pre-pandemic levels. The demand for air travel is increasing in line with the curtailing of travel restrictions, and this recovery looks likely to continue. This could see GCC traffic levels return to and exceed pre-pandemic numbers in the near future.

2. MEASURES TAKEN BY GCC STATES

2.1 Within the GCC, the Civil Aviation Regulatory Authorities issued several notable safety decisions, commencing in March 2020. These temporarily issued Safety decisions authorizing the utilization of ATC simulators to supplement the minimum experience requirement (MER), where moderate to high traffic levels and complexity could not be met for ATC currency, competency assessments and training purposes.

2.2 At the UAE area control centre (ACC), whilst ab-initio training was suspended, the simulator was utilised for multiple purposes, including ATC currency, competency, training and periodic and final validation assessments. For students that were at the final stage of their unit endorsement rating, a final 2-day evaluation was conceived and approved. In Oman, proficiency checks were amended to include a theoretical self-study element followed by an exam on the content. This was followed by a simulator proficiency check on exercises designed around previous typical daily operations with heavy traffic. The simulator was also used for currency training on moderate to busy traffic exercises in Kuwait and Saudi Arabia, devised around daily operations at normal traffic levels.

2.3 The respective ANSP Training departments re-scheduled training courses and individual staff tasks to enable the allocation of simulator positions and staffing resources to mitigate the impact of the traffic reduction. In the UAE and Oman, shift staffing was reduced to 50 per cent of normal levels. Additionally, in the Muscat ACC, staffing guidelines were established around the level of traffic (relative to normal). Minimum staffing figures were set appropriate for each level. As the downturn continued, at UAE ACC, the management formulated a program to cycle later stage ab-initio trainees through the simulator to expose them to moderate/high traffic levels and complexity. This program was also made available to ATCOs to maintain their competency.

2.4 Later the GCAA SAFETY ALERT 2022-02 highlighted the necessity to maintain manpower responsibilities. Ab-initio training courses were redesigned and reformatted for online presentation and video conferences, which was conducted using online learning managements systems (LMS). It enabled learners to access training safely from home or private offices and ensured the training remained effective and interactive.

2.5 Due to the social distancing guidelines and to ensure maximum simulator availability for competency and training programs, Emergency and Continuation Training (ECT) was developed as an online program that ATCOs could access via LMS. Over 300 training hours were saved in 2021. In 2022, the ECT program will continue to be delivered online. This will facilitate the use of the simulator for skills training of staff that validated just before and during the downturn.

3. CHALLENGES EXPERIENCED IMPLEMENTING MEASURES

3.1 Given that the situation caused by the pandemic was constantly evolving, and restrictions globally were applied at different times and in different manners, it was very challenging for ANSPs to predict and adapt to the ever-changing situation.

3.2 GCC ANSPs remained mindful of the need to continue training programs at a time when simulator capacity could be utilized effectively for currency and competency requirements. Demand for the simulator as an integral training resource outweighed the capacity.

3.3 The switch to online learning systems was accelerated due to the necessity to limit unnecessary close contact between staff. Staff were required to become knowledgeable on new software, hardware and learning platforms.

3.4 ANS management in the GCC States remained actively engaged in managing staffing due to sickness, social distancing and currency requirements. Both local and regional procedures required amendment due to the low traffic volume, regulatory consultation was needed prior to the implementation of new procedures. Flight restrictions also needed to be applied and processes implemented.

4. CONTINGENCY PLAN RECOMMENDATIONS TO CATER FOR FUTURE ABNORMAL EVENTS

4.1 The following could be considered when establishing contingency plans for future similar events:

a) collating global impact data from ANSPs, including methods employed to protect against skills degradation and ensure manpower planning to meet demand during recovery and post-recovery phases;

b) phased interventions based upon an ANSP determination of average standard traffic numbers. Once the movements drop below pre-determined trigger amounts it would trigger specific actions based on the level of traffic reduction in various areas;

c) highlighting the significant benefit a fully functional, multi-position simulator can have on operational currency and training continuity during significant and sustained traffic reduction and ensuring adequate staffing to maximize this effectiveness;

d) creation of traffic level grading structures for training/currency requirements will ensure that effective training can be maintained by supplementing training with simulated exercises during network interruptions;

e) creation of real-world traffic samples reflecting high traffic levels and/or complexity to be simulated and added to a portfolio of exercises for competency maintenance and currency training;

f) adjustment of operational currency requirements and part replacement with simulated traffic exposure;

g) return to simulated training for trainees unable to obtain traffic levels sufficient for the training stage, and extension of operational training MERs to ensure adequate real-world exposure; and

h) development of online training content and evolution to modern digital learning platforms that can be accessed remotely in addition to being classroom-based.

5. CONCLUSION

5.1 Within the GCC, ANSPs actively monitored and anticipated how the situation would evolve during the initial stages of the pandemic, making significant changes to many aspects of service delivery at a time when a quick and effective amendment of procedures and processes was imperative. Some ANSPs formed of multiple departments led to the need for very quick coordination between business units and regulatory bodies to ensure the response was safe, effective, and compliant with appropriate regulations.

5.2 Creation of phased contingency plans taking cognizance of these areas would be useful in future abnormal events to ensure a seamless transition to contingency operations.

5.3 Close and continuous collaboration with the regulatory authorities was vital and a key success factor to mitigate identified risks on a timely manner.

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