







Safely Navigating the Industry Recovery

Webinar Series







Moderator



Gabriel Acosta
Head of Global Safety

IATA

Human Factors for ATCOs, Dispatchers and Pilots in the Context of COVID

Webinar Synopsis:

More than a year after the onset of the COVID-19 pandemic, operational staff and their work environments continue to be impacted by evolving health safety protocols and requirements, and the associated stresses. During this webinar experts will share their views about challenges and issues as well as tools that can be used throughout the recovery, especially as traffic levels start increasing.



Marc Baumgartner
SESAR/EASA Coordinator
IFATCA



Jean-Benoît Toulouse
HUPER vice chairman - Human
Factors
IFALPA



Jason Demagalski Human Performance Team Manager FAA



Danilo Marcondes de Andrade SMS & Security Director GOL Airlines

Speaker



Danilo Marcondes de Anos SMS & Security Director

GOL Airlines

Human Factors & Covid-19 Gol Airlines May/21



Timeline



Covid-19 Hazard Identification

Human Factors active phone calls for operational employees

555 289 73% Operational 27% Human Factor Threats reported

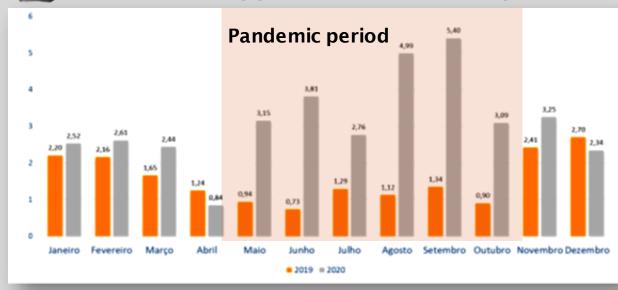
Operational Reports

- Loss of flying proficiency and system knowledge
- ATC short cuts on approach as a Contributing Factor for UA
- Increased incidence of bird reports
- Unorganized boarding and disembark (Tail Tipping trend)

Human Factors Reports

- Contamination
- Job Instability
- Situational Awareness reduction
- Routine Changes
- Stressful work environment
- Salary Reduction

Unstable Approach GOL /1000 cycles



Covid-19 Mitigation Actions

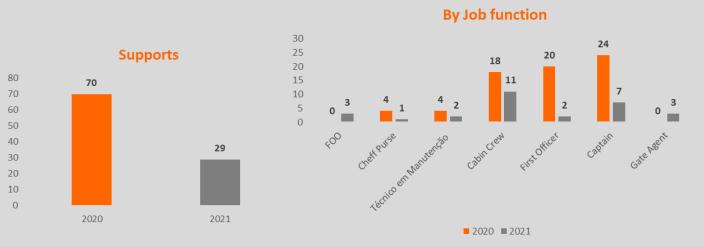
Risk Assessment about covid-19

10 ~150

Risk Analysis

Actions

- Human Factors Safety Bulletins and videos on how to keep healthy mindsets during Covid-19
- Human Factors Committee With Safety, Flight Ops and Medical department
- > Personal Psychological Support





Covid-19 Next Steps

> Mental Health Survey for all Operational employees

Main Goal: Overview about how employees are facing this pandemic scenario, with the identification of symptoms of emotional distress and how demands need to be addressed by Human Factors. These data will allow Human Factors department to develop strategies to reduce the impact of these situations on a professional and personal level, mitigating the risks to the Operation.

Schedule: From Apr/21 to Aug/21

> IATA Unstable Approach framework

Main objective: write recommendations, aiming at the reduction of UAs and their consequential outcomes.

- 1) Gather information (intelligence on the issue) including safety performance statistics and industry best practices available
- 2) Perform a safety risk assessment
- 3) Issue final report with recommendations to initiate Phase III of the SRMF process

Active member: IATA's Safety Risk Management framework process consists of four phases:

- 1. Identify and document safety issue
- 2. Perform SRA resulting in recommendations
- 3. Evaluate, develop and implement recommendations
- 4. Continuous monitoring the safety issue

Confiança que se renova a cada voo



O Segurança Operacional







Speaker



Jean-Benoît Toulouse

HUPER vice chairman - Human Factors

IFALPA

The Global Voice of Pilots



Wellbeing pathway to resilience

Captain Jean-Benoît Toulouse

Webinar on Human Factors | May 20th, 2021

Why is Wellbeing an issue?









Why should one worry about wellbeing?

Isn't it already covered under medical part?

How can wellbeing ease such a global crisis?

What do we mean by Wellbeing?

It is a state of living where the person is functioning well, cognitively, emotionally and socially; finds satisfaction in life and work; and contributes meaningfully within their community.

- Draft definition from the IFALPA PAWG

How will pilots contribute to the industry recovery?





Unlike dinosaurs pilots have already demonstrated their ability to adapt, in a word their



Resilience: process by which individuals demonstrate more positive outcomes than would be expected, given the nature of the adversity experienced.

A Cognitive Model of Psychological Resilience

Sam Parsons, Anne-Wil Kruijt, and Elaine Fox

Oxford Centre for Emotions and Affective Neuroscience (OCEAN), Department of Experimental Psychology, University of Oxford



Resilience is a pillar for safety

- Has it been constructed?
- Where does it come from?
- Is it innate? Acquired? If so, then where? How?



- Resilience is fed by wellbeing
- Resilience has to be demonstrated after initial training.
- It is fragile and certainly not constant at the scale of a career
- Has to be maintained through enhanced wellbeing

8 Dimensions of Wellbeing

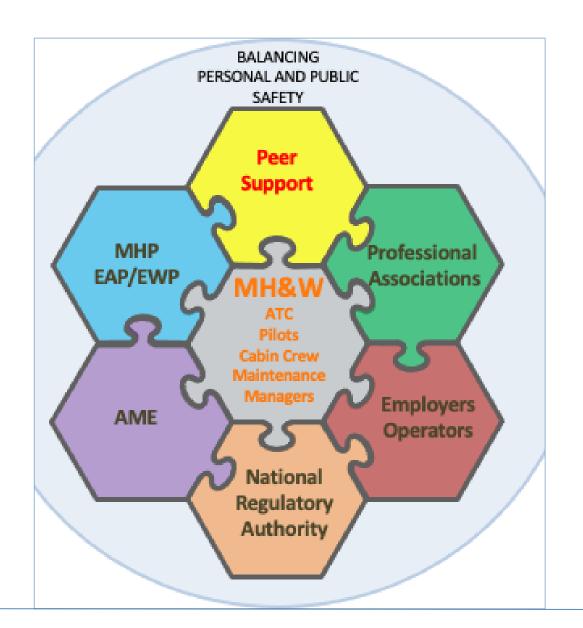


Physical Intellectual Work Spiritual

Financial Social Emotional Environment

What does this mean for our partners?

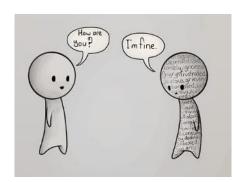
- Operators
- Air Traffic Control
- Fellow pilots





So, what can be done?

- ☐ Each Stakeholder has a responsibility
 - collaborate,
 - provide guidance
 - make resources and tools available
 - educate on Support, Self-care and Fitness for Duty
 - utilize Peer Support
- ☐ AMEs
 - supportively discuss Wellbeing
 - refer to resources
- ☐ Us,PIlots! we need to learn
 - self care
 - pro-actively seek support



In a nutshell...

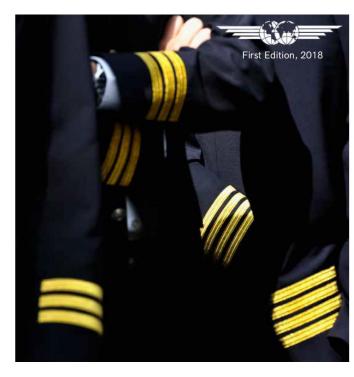
I understand your world, can relate to your challenges and can be of support you through the difficult circumstances.





Pilot Assistance Programs





Pilot Assistance

A GUIDE TO DEVELOPING AND IMPLEMENTING SUPPORT PROGRAMS; FOR THE PILOTS BY THE PILOTS

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ifalpa.org



Speaker



Marc Baumgartner SESAR/EASA Coordinator IFATCA

Safely Navigating the Industry Recovery

Human Factor – the ATCO perspective

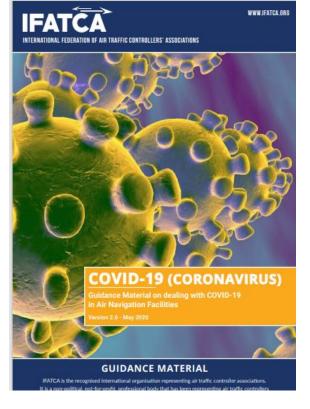


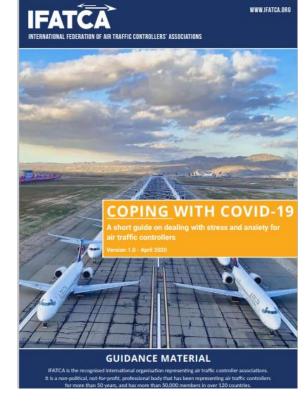
COVID-19 – IFATCA

Marc Baumgartner
IFATCA
SESAR coordinator



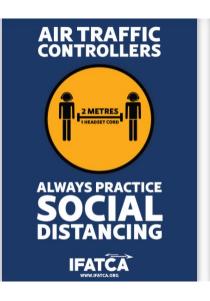
COVID-19 - IFATCA















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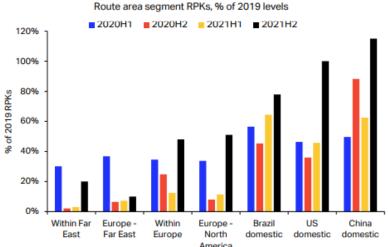


Route area segment RPKs, % of 2019 levels 2020H1 2020H2 2021H1 2021H2 100% - 20% -

America Source: IATA Economics Airline Industry Financial Forecast update, April 2021

Context





America Source: IATA Economics Airline Industry Financial Forecast update, April 2021



Preliminary impacts of COVID-19 on the ANS

				ir
Aid from national government	Loans	Cost-containment measures		
		Staff	Non-staff	Capital expenditure
ANS CR, ANS	Finland, Austro Control, DFS ^(b)), LGS ^(a,b) , LPS ^(b) , N	ATS ^(a) , NAVIAIR, s	keyes ^(a) , Slovenia Contro
		Albcontrol, ARMATS, Avinor, BULATSA, Croatia Control, DCAC Cyprus, DSNA, EANS, ENAIRE, HungaroControl, IAA, LFV, LVNL, M-NAV, MUAC, NAV Portugal, PANSA, ROMATSA, Skyguide, SMATSA, UKSATSE		
Skyguide ^(b)	Albcontrol ^(a) , ARMATS,	ENAV	DHMI	DHMI
Avinor ^(b)	Croatia Control, DHMI ^(a) , DSNA, EANS ^(a) ,	HCAA	ENAV	HCAA
	HungaroControl, IAA,	MATS	MOLDATSA	MATS
	LVNL ^(c) , MATS ^(a) , NAV Portugal, Oro Navigacija ^(a) , PANSA, ROMATSA,	MOLDATSA		Sakaeronavigatsia
	Sakaeronavigatsia, SMATSA, UkSATSE			

(a) EUROCONTROL Loan. (b) Increase in equity. In the case of Avinor from the mother company, which is a State owned enterprise. (c) LVNL operates in a specific environment where the balance in its current accounts is ensured by Treasury

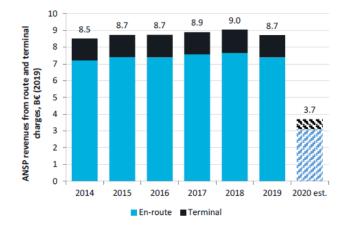


Figure 3: Pan-European system ANSP revenues, 2014-2020 (est.)

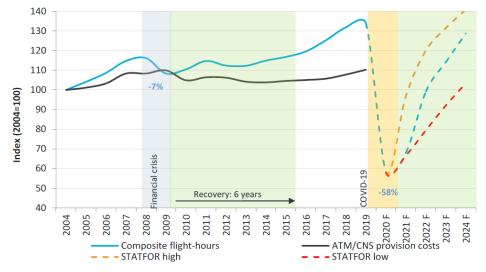


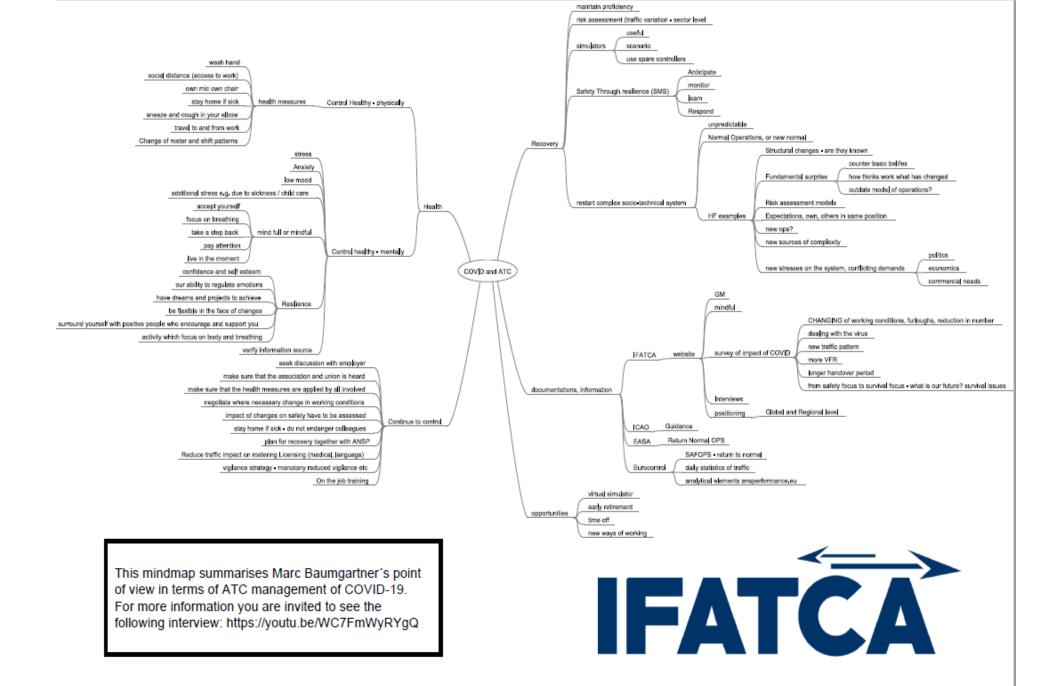
Figure 1: Pan-European system traffic 2004-2024 (est.) and ANS costs (2004-2019)

Table 1: Mitigation measures implemented by ANSPs in 2020 or planned in 2021

Performance Insight 2 - Preliminary impacts of COVID-19 on the ANS industry

Aviation Intelligence Unit Portal (ansperformance.eu)







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Recovery

This phase is related to the initial actions of Member Association and their workplaces during the recovery, post containment of the pandemic.

What do we expect?



Recovery may be slower than initially anticipated, due to the economic slowdown and regions recovering at different rates.



Changed traffic flows as airlines will start using their most efficient aircraft



Proficiency issues



Changes to working conditions





Recovery



Source @lasamericastower_atc_views

Maintain proficiency

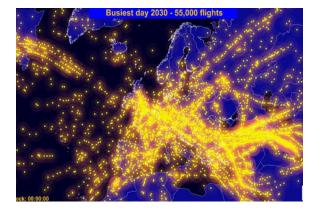


Source CASA online shop



Locations of GROUNDED aircraft incl. category Madrid - Barajas (LEMD) Other | Teruel (LETL) Wide body London - Stansted (EGSS) Regional Jet London - Gatwick (EGKK) Commuter (TurboP) MOD St. Athan (EGSY) Very Large Aircraft Budapest - Ferihegy (LHBP) Istanbul Atatürk (LTBA) Tarbes-Lourdes Pyrénées (LFBT) Berlin - Brandenburg (EDDB) Prague (LKPR) Dusseldorf (EDDL) London - Luton (EGGW) Dublin (EIDW) Cotswold (EGBP) Shannon (EINN) iGA Istanbul Airport (LTFM) Ciudad Real Central (LERL) Manchester (EGCC) Paris-Charles-de-Gaulle (LFPG)

Risk assessment Traffic variation Airport and Sector level

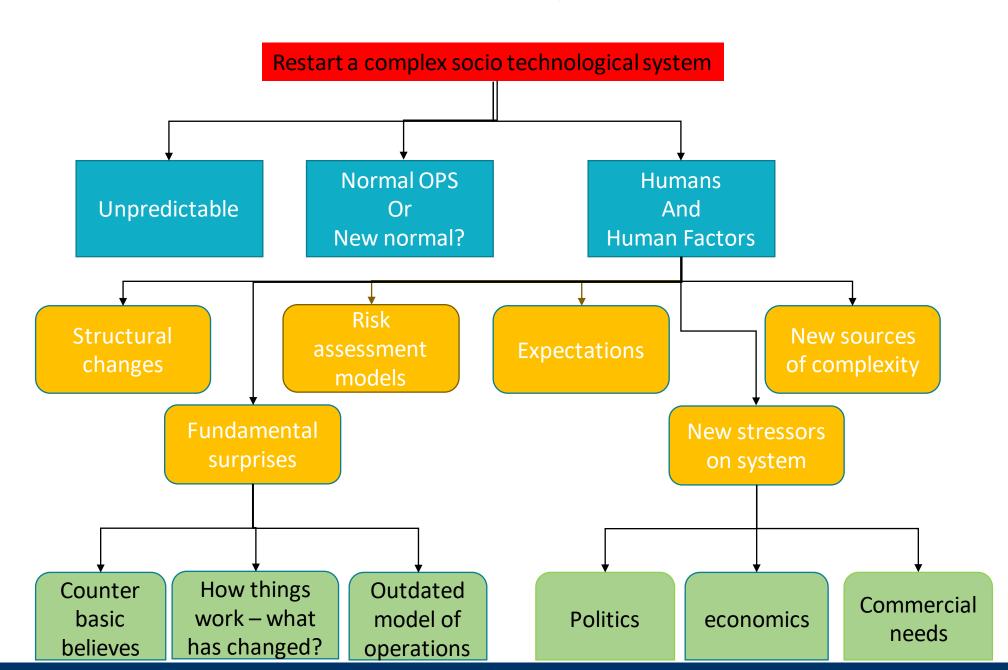


Source Eurocontrol Network Manager

COVID-19 - Grounded aircraft in the EUROCONTROL area Aviation Intelligence Unit Portal (ansperformance.eu)



Recovery







preparations for resuming safe operations

Guidance for aerodromes on



#COVID19



INTERNATIONAL FEDERATION OF

11 December 2020

-- PRESS RELEASE --

IFATCA cautions on post-COVID-19 air traffic recovery

The duration of the COVID-19 crisis is having a serious impact on the amount of air traffic since March 2020. All kinds of precautionary measures are being taken to protect operational Air Traffic Management (ATM) staff against spreading of the virus.

All these different measures, in combination with the relatively low traffic demand, may have affected the competency levels in air traffic service units around the world.

Though many national safety authorities acted within their jurisdiction to keep licensed staff at the highest possible level of competence, the combination of the low traffic levels and the duration of the

Whenever and wherever traffic recovers to pre-COVID-19 levels, operational staff may reach a point, either in peak or in continuous traffic flows, where their ability to handle the traffic has not yet regained

As experience shows, such a temporary gap can only partly be trained for in simulations. If at the same time, social distancing and protection measures still have to be applied, the situation is likely to be

Bearing in mind ICAO provisions and IFATCA policies on competency-based training and assessment and refresher training, full competence has to be rebuilt and maintained by both operational staff and

The current solution adopted by some regulators would suggest that competence can be maintained by merely working during a certain number of hours, regardless of the amount of traffic (even zero). While this may be compliant with the letter of the rules, it clearly does not meet the intent, as it does not fulfil the purpose for which competencies safeguards and thresholds were created.

Moreover, in their aim to keep their licensed staff at maximum (theoretical) competence levels, Air Navigation Service Providers (ANSPs) may be tempted to schedule more staff than the current level of traffic actually requires, which is doubly counterproductive: not only it does not help to consolidate competence, it also unnecessarily puts operational staff at risk during a pandemic as staff is exposed more than needed in close contacts in these units.

An additional concern is that many ANSPs have taken the opportunity to optimize traffic flows, enabled by the low demand and lower traffic complexity. As these optimisations have not been tested in high traffic situations, it is vital that when traffic levels recover, these changes are carefully monitored and

Lastly, IFATCA submits that the global pandemic has also likely had psychological and/or physical impact on some of the staff, which may, in turn, have compromised their ability to cope with pre-pandemic traffic levels. This aspect should not be ignored and needs to be carefully considered.

IFATCA recommends that ANSPs, in collaboration with their regulators and capacity managers, ensure that a relevant level of competence can be maintained. To mitigate some of the risks mentioned above, traffic levels need to be carefully managed and, where necessary, restricted to allow staff sufficient time to get reacquainted with increasing demand and complexity. Furthermore, IFATCA encourages ANSPs to engage with their staff and ensure mental and physical health support programmes are made available to help them meet the challenges that will undoubtedly present themselves during the recovery from this unprecedented crisis.

More than 50 Years of Professional Involvement IFATCA has been representing air traffic controllers since 1961, with more than 50,000 members in over 130 countries.

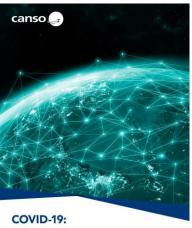












Ensuring continuity of ATS service globally



ANS Restart and Recovery Guide





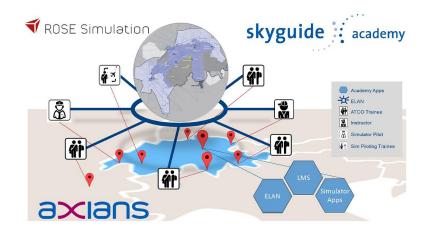
Source convenantgroup.com



Source blog birchwood financial partner



Source digital projection.com









Thanks Sesar.coord@ifatca.org





Speaker



Jason Demagalski Human Performance Team Manager

FAA

Safely Navigating the Industry Recovery- Human Performance

Jason Demagalski
Human Performance Team Manager
FAA Air Traffic Organization





FAA Air Traffic Organization (ATO)

5,300,000

SQUARE MILES OF UNITED STATES DOMESTIC AIRSPACE

24,100,000 SQUARE MILES OF OCEANIC AIRSPACE

147
TERMINAL RADAR
APPROACH CONTROL
FACILITIES

520
AIRPORT TRAFFIC CONTROL TOWERS

21
AIR ROUTE TRAFFIC CONTROL CENTERS

7,200 MAINTENANCE TECHNICIANS AND ENGINEERS



ATO Human Performance Team

Human Factors



Do we have the right people

in the

with the *right information*

and the

and the

right tools
with the
right motivation

and the

right role models

to do the job?

Health and Wellbeing



Fatigue Risk Management









Issues with current and future state operational levels

	Normal	Draw Down Posture	Near-Term Ramp Up	Long-Term Ramp Up
Traffic Levels & Complexity	 Normal traffic levels Normal complexity levels Normal GA/commercial mix 	 Reduced levels Reduced complexity Flipped GA/commercial mix 	 Ramp up in traffic levels Relative complexity increase Increased commercial 	Slow return to increased traffic levels and complexity Increased commercial
Facility Staffing Levels	Normal/full op staffing Normal Team Resource Mgmt (TRM) mix	 Lower op staffing levels required Large combined sectors Different TRM mix 	 Increase in op staffing levels Combined sectors Return to some previous TRM mix 	 Full op staffing levels Return to normal TRM mix
Work Schedules	Rotating five day scheduleRotating six day schedule	Rotating, five in facility and ten out of facility	Rotating, five in facility and five out of facility	 Rotating five day schedule Rotating six day schedule
Safety Risk Mgmt	Known hazards, managed risks Safety assurance	 Known hazards, managed risks New hazards, new risks New mitigations 	 Known hazards, managed risks New hazards, new risks New mitigations 	 Known hazards, managed risks New hazards, new risks New mitigations
Controller Performance	High cognitive engagement High human performance	 Lower engagement Different teams Complacency Skill automation loss Slips, lapses Lifestyle changes 	 Increasing cognitive engagement Skill/learning degradation Lifestyle changes Fatigue 	 High cognitive engagement High human performance New habits Proficiency/currency drift

Operational ATCO Education

Human Performance Strategies for Essential Air Traffic Control Personnel Course goals Alertness Strategies for Essential Air Traffic Control Personnel **H**HumanPerforma Training in a National Health **Emergency H**HumanPer Human Performance

Safer On Site - Reducing the Risk of COVID-19 in FAA Facilities (9)

This course is divided into 3 Sections 1. FAA Policy: Reducing Risk of Employee Exposure to COVID-19 in FAA Facilities 2. FAA Daily Wellness Check/Self-Monitoring for COVID-19 3. Acknowledgment

The purpose of this course is to provide an overview of the FAA's new policy - Reducing Risk of Employee Exposure to COVID-19 in FAA Facilities.

February 2021 CISP SAFE Discussion Sheet



Human Performance During a Pandemic Excerpts from CISP/ATSAP Reports "[TRACON] had cleared us for the visual to 27L. We had the field in sight, and the frequency was Reports received through ATSAP and the Confidential Information Share Program (CISP) indicate new challenges ATC and flight crews are facing during these unprecedented times We had the find in right, and the Requency was not bory. A normal payers had sulking were not bory. A normal payers had sulking were not been represented by the resulting of th One of the biggest challenges reported has been the impacts of dynamic scheduling. This includes (but is not limited to) new rotations, different crews, and increased time away from operations.

Reports also demonstrate the need to adapt to changing traffic demands, whether reduced or increasing, with controllers working combined positions (sometimes without the ability to split). This had resulted in a triggering of "mid-shift" thinking, as well as pilot expectation

Simultaneously, many are dealing with challenges affecting life away from the cockpit or facility, possibly at home with family or with friends. All of these changes have the potential to impact Human Performance in a negative way. Do you recognize any of this in your life! If so, how are you handling these challenges?

Some potential concerns resulting from the ever-changing conditions are distractions, as well as feelings of inadequate proficiency. With this becoming our new normal: changing traffic, changing schedules, home life challenges, etc., how have you adapted? Are you read for more changes ahead?

"Upon departure from 22R, ACFT started a left turn in the vicinity of [FIX A]. We realized at approx, the same time as departure control that this was in error. We had inadvertently loaded the [SID A] departure in lieu of the [SID B] <u>Distraction</u> - At this time, there are going to be many distractions surrounding you. Internal thoughts and worries not related to our jobs will whirl around, it's natural. Here departure which is what we were filed and cleared for via the PDC... Crew proficiency was a contributing factor due to lack of consistency and

are some techniques to help pull you back to the operation.

- Scan your radar, solicit a PIREP, check weather surrounding your area, review NOTAHS, etc.

Underload - This is an issue that arises when you are working at less than your optimum level, resulting in your brain being less challenged than usual. Consequently, your mind looks for additional tasks to increase your alertness. Underload might cause you to daydream, get distracted by internal thoughts, or search for external discussions to incre

: Maintain hyper-visilance. All three of these conditions will result in having a reduced mental capacity for the main task. This can put you at risk of seeing things late or not at all. Try and increase your workload in job-related ways.

contribute factor due to lack of constitutory and contribute factor due to lack of constitutory and constitution. The fiftight in any reviewed due to lack of the factor of the factor of the factor (DD A) sharing the first most like, it was passed over without the necessary surveying and preparation. The crew needed to recognise the above mentioned thems as defocio on proper due to the factor of the factor of the greatly reduced time believe the controls. It is importative that the necessary mis is taken to entire all terms are exactly at they should but. Conscious Thought - Filed routes, shift schedules, and crew rotations used to be something we were used to, but now they may look much different. You may now be "I opened [SECTORS AIB] and received a bristleg from the [SECTOR C] controller. About 2 mature after opening the sector, the [SECTOR C] controller. About 1 mature and the sector, the [SECTOR C] controller switched [ACFT 1] to may frequency.—The [SECTOR C] controller also had [ACFT 2] decreading. and then thipped [ACFT 2] to the [SECTOR D] controller for further decreat. The [SECTOR D] controller controller controller controller controller controller. consciously thinking more about tasks, that a month ago were automatic. As a result, you may see yourself or other controllers make mistakes that aren't "normal". That is what happens when you start to think about tasks that you normally do unconsciously. Look out for each other. Be willing to point out things to colleagues when you think they might have missed something or their plan isn't going to work. Be conscious all how dramatically things have changed and that each day now brings a new sense of

"normal." Be open to receiving help, whether at work or outside the operation

Facility Discussion

Turing the COVID-19 Pandemic, how do you ensure you maintain proficiency and

herber descent. The DECTON D) controlled works in a different sail, he has table the fortification of the descent sail of the What steps are you taking to accommodate others' feelings about the pandemic and the precautions they take? What can you do to support and help your coworkers that are having a more difficult

If your facility or area is on the receiving end of non-compliance, or delivering it, wha

are the potential risks being introduced into the system? How will you correct this > What can you do now, to plan for more changes that are inevitably ahead?



Pilot Perspective

- Reminding ATCO's of the challenges facing pilots
- Wider approach to Team Resource Management



ATO Human Performance Health and Wellness





COVID-Related Skill Degradation in Pilots

Introduction



The National Health Emergency has left no facet of aviation untouched. Similar to the controller workforce, the pilot community is experiencing skill degradation due to inconsistent flying time and limited practice opportunities. Pilots may require additional guidance, instruction, and patience to maintain safety during this time. Read below for some tips on how controllers can identify and help pilots who may be a little rusty in applying their flying skills. Be mindful that our aviation colleagues may be facing fatigue, anxiety, and employment concerns due to the pandemic. We are all part of the same safe aviation system.

Signs and Symptoms

Recognizing skill degradation in pilots can be challenging. Without visual cues or observable errors, rusty pilots may fly "under the radar," making it challenging to know when to provide extra support. Just as you are experiencing changes during this time, it's essential to remain vigilant for experienced and inexperienced pilots who may be struggling.



Be on the lookout for:

- Runway safety issues and taxiing errors
- Readback/hearback errors
- Radio frequency errors
- · Airspace and airport unfamiliarity
- Forgetting airspace boundaries and restrictions
- · Slow entry of changes into FMS
- The basics: poor phraseology, communication errors, callsign confusion, etc.

Tips and Resources for Working with Pilots

Share experiences with fellow controllers

- Identify new trends among pilots and consider mitigations
- Work with management to address redundant safety issues with specific operators
- Explore opportunities for training to address changes and increase awareness

Consider all operations as nonnormal

- Aircraft are flying at light weights
- Pilots may be carrying non-job stress into the cockpit
- Relationships in the cockpit may be strained due to furlough decisions
- Pilots are probably not flying consistently right now

Reach out and provide additional instructions, if necessary

- Highlight changes that have occurred since pilots were in your airspace
- Reassure pilots that you are there to help however you can

Additional Resources

- AOPA Rusty Pilots Resource Guide
- AvWeb COVID-19 Lessons Article
- Flight Safety Foundation COVID Safety Roadmap

Partnership for Safety - Local Safety Council Discussions - March 2021



Supervisor Workshops I

- HP impacts of going in to pandemic posture on the operation?
- What is changing in the operation and HP in the current phase of COVID?
- Controllers response to COVID and how does this impact their performance and behavior in the operation?
- What safety and behavioral issues are we seeing in the operation and how can these be addressed?

Supervisor Workshops II

- How have levels and style of supervision changed over the last year?
- What impact has this had on the operation and how do we get back to where we need to be going forward?
- Impacts on Team Resource Management over the last year, now and in to the future?
- What considerations do we need to give to training, trainees and OJTI's?

Training Everyone

- Traffic mix
- Traffic volume/complexity
- Trainer cues
- Skill degradation
- Procedure memory
- Physical location
- Trainer proficiency

- Trainee proficiency
- Position Relief Briefing (PRB)
- Takeover
- Trainee expectations
- Bravado



COVID Impact on Workforce Research

- Operational Safety
 - Reduced staffing, scheduling, and traffic levels
 - Training delays
- Human Performance
 - Skill degradation, procedural changes, and fatigue
 - ATC Attitudes
- Future Operational Safety & Human Performance
- Best Practices and Areas for Improvement







Questions

and

Answers

Future Webinars – Save the Date

Episode 4

Topic: Organization & Change Management

throughout a pandemic

Date: Thursday 29 July 2021

Time: 12:30 CEST



Thank you