



LEADER FORUM

SKILLS DECAY

EXECUTIVE SUMMARY

BY ALLYSON KUKEL
HEAD OF AIRLINE ENGAGEMENT



Skills Decay Working Group Discussion & Recommendations

The Working Group challenged the term 'skill decay,' as has been used by some in the media and aviation industry. Pilots must be competent; therefore, aviation is experiencing a major erosion of competencies, not skills. Not all competencies are equal; some wear away sooner, others take longer to re-build. The enormity of degradation is unprecedented, with most of the world's pilots idle at home.

Whilst there is no definitive research to prove whether manual skills or cognitive skills decay first, our experts agreed that manual skills are not the imminent issue. We can consider that manual skills are deeply embedded in the part of the brain where skill memory is processed; if these competencies have been practiced enough they are not subject to rapid deterioration.

All other actions undertaken by pilots are cognitive by nature and over time some become semi-automatic by regularly undertaking these actions or procedures... creating spare capacity for the brain to handle non-normal or hectic situations.

Handling

Significant differences in decay were found based on pilot experience levels. Highly experienced pilots who have good handling skills can go considerably longer without flying and not experience poor handling. However, First Officers with limited experience require multiple training sessions to reach the return-to-operations level required. In general, because handling tasks might require more attention or "brain capacity," as pilots re-train other tasks could be slower. Therefore, automation as per the operator's procedures might be preferred to manual flying in early days.

Procedures

Standard Operating Procedures (SOPs) remain paramount to safe operations, yet SOP skills also fade over time. Some companies have unintentionally added additional burden on the crew by modifying procedures during this period. This creates confusion and increases the risk of mistakes. The Working Group agreed that successful missions keep operations simple, provide crews plenty of time, and aim to limit crew stress. One major European carrier has lengthened the turn-around time on their short-haul sectors, reducing stress and allowing procedures to be followed at the crew's pace, with the ultimate goal of ensuring safe operations.

Competencies

A serious look at competencies must be taken to decide which ones are critical, requiring mastery, and which ones can be accepted at a 'satisfactory' level.

A single simulator session will not bring all competencies to the same level. The aim must be to bring all competencies to a satisfactory level using appropriate training, ensuring safe operations. In Europe, some major airlines have used this approach, and there are no significant deltas in the Flight Data Monitoring now versus before the pandemic. The Working Group recommends putting pilots on the jump seat; getting them back into the environment, including ATC and any new company procedures. Plus, the additional pair of eyes in the cockpit could add a safety layer during re-start operations.



Confidence

Lack of confidence in competencies creates stress and reduces the performance level of the pilot, which could be exaggerated by the prolonged time without flying, as well as any personal or professional challenges the pandemic has induced. This confidence must be re-built during re-training prior to the pilot being released to the line. Operators must consider this when creating training syllabi, and discuss this approach with the Instructors. Instructors have a critical role in the way training sessions are handled and should create an environment for pilots to re-build confidence, and ask for additional or individualised training where needed.

Environment

Crews do not operate in isolated bubbles; there are many factors to contend with in their dynamic environment, and that greater eco-system has been affected. This has been compounded by several additional elements to contend with; ATC also has reduced experience, the airports may have fewer ground staff, there may be new gates or routings. Like everyone else, pilots are contending with the frequently changing health and safety protocols. This all may contribute to additional stress for the flight crew even before the flight begins.

A key here is threat-and-error management (TEM). Crews must be aware of these threats and mitigate them through defensive flying. There is no reason to rush, accept short-cuts or deviate unnecessarily. Operators must take necessary steps to safeguard their crews from outside pressure, protecting pilots from any interference to safe operations under present circumstances, even if the intent is good. With time, the crews will regain their prior proficiency levels and gradually move from safe operations back to safe and efficient operations.

Human Factors

With 70% of the world fleet parked, pilots became unemployed by the tens of thousands. This can weigh heavily on a pilot's mental state and jeopardize the future performance of that crewmember. The Working Group found that not having a sense of belonging anymore is critical; pilots have lost contact with their company, colleagues, and potentially even aviation. Operators must keep their pilots connected to the company, help them stay mentally healthy, and facilitate their future re-integration.

Regulatory

Regulations were made in normal times and are, per definition, not fit for the present unprecedented situation. Regulators reacted swiftly at the beginning of the pandemic. They created a set of waivers and extensions to keep the fleet in the air to secure vital cargo flights and pandemic relief.

Regulators are now looking at adapting the temporary measures to the present challenges. It is the operator's moral duty to take the steps they feel necessary to operate safely, even if that means going beyond regulatory requirements.



Background

In February 2021, Halldale Group and Civil Aviation Training (CAT) magazine, in collaboration with the European Union Aviation Safety Agency (EASA), held a virtual Heads of Training (HoT) meeting to discuss critical topics facing the airline training community in Europe.

To continue these discussions, Halldale/CAT are convening a series of deep-dive workshops – the CAT Leader Forum – each with a group of selected subject experts representing airlines, training organisations, academia, regulators, and other stakeholders. The findings and recommendations of the workshops will then be presented in a public webinar by representatives of the working group for the respective issue.

Skills Decay	7th April 2021
XR Emergence	29th April 2021
EBT/CBTA	27th May 2021
UPRT	1st July 2021
Big Data	29th July 2021

The first Working Group, on so-called Skills Decay, or ‘rusty pilots,’ was held in late March and the results presented in a webinar on 7 April. The recorded webinar is available online [here](#).

[Read the full report](#), including findings from the original Heads of Training working group discussion.

HOSTED BY:



IN PARTNERSHIP WITH:



Resilient Pilot



HalldaleGroup

www.halldale.com