

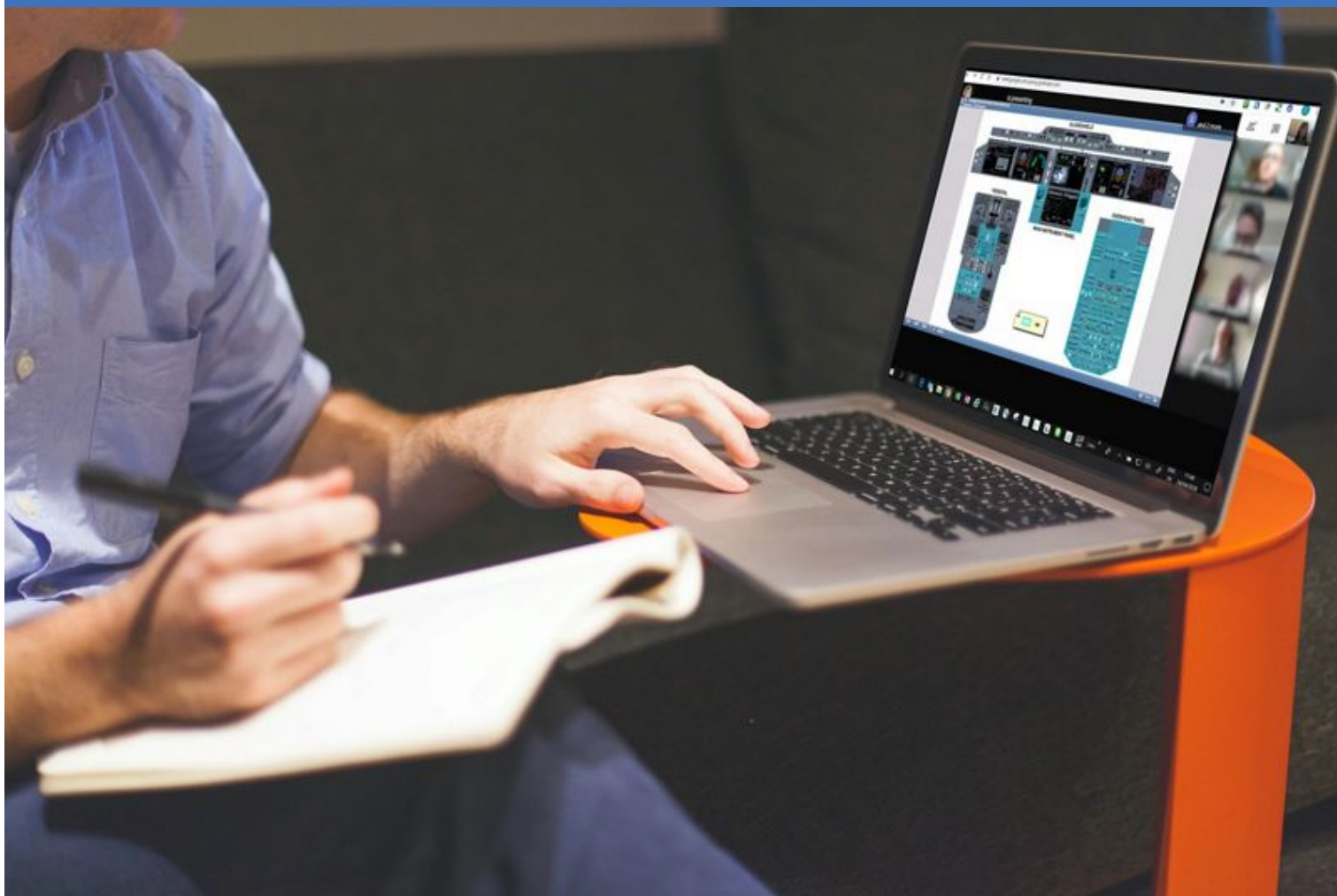
# Training through the crisis and beyond

## How maintenance and flight training has evolved to match new needs

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Training is a must for operators and for flight and maintenance organisations to ensure pilots and maintenance staff maintain and develop the required competencies. When so many flights were suspended due to the COVID-19 pandemic, there was a significant impact on training activities which were essentially based on instructor-led courses with all trainees physically present in the same classroom.

It was therefore obvious that Airbus had to rapidly adapt its training solutions to support customers more than ever. It envisaged solutions which needed to address the immediate crisis and reduced operations, and which needed to integrate the overall training offer in the longer term. And all solutions had to keep safety at the forefront.



## Adapting maintenance training for technicians and engineers

An Airbus Maintenance Training task force set to work to deliver a fast and effective solution which would:

- ensure customers could still train during the crisis;
- be resilient during and even after the crisis;
- be approved by aviation authorities;
- be as efficient in practice as physical instructor-led training;
- be ready on time with fully-trained instructors;
- enable trainees to take the examination right after the session and hence receive their training certificates rapidly on successfully completing the course;
- require very limited material investment for customers.

And finally, it all needed to be ready just one month after development.

The task force team, distance working throughout the lockdown period, considered numerous aspects and drew knowledge and expertise from standardization, maintenance instructors, examination and quality managers, planning, commercial and IT specialists. The “Synchronous Distance Learning Maintenance Training” course - DGAC-approved and ready-to-teach - was delivered in June.

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## Synchronous distance learning - what the customer gets

- A real-time instructor-led solution, suitable for theoretical courses usually given in a classroom.
  - A flexible set-up adapted for synchronous distance training to trainees who are either together in a classroom or, alternatively, are each isolated in their home or individual office.
  - For each course, a training programme specifically adapted to distance learning conditions to ensure optimal knowledge retention.
  - A Digital Training Dossier per trainee allowing real-time, digital data-recording and processing - from trainee registration to training certificate issuance.
  - Examination immediately after the session by Airbus local Field Service Representatives now qualified as Training Invigilators, fully respecting initiatives and requirements to ensure compliance.
  - A DGAC (under EASA) approved solution. The solution has since been approved by the Chinese CAAC and the UAE GCAA.
  - A sustainable solution, applicable beyond the crisis.
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## Stamp of approval from authorities and customers

A speedy solution, saving time and costs

After a successful test with Airbus Tianjin FAL mechanics in China, the first synchronous distance learning course took place for engineers of the airline Hi Fly who followed an A350 General Familiarization course. The course was further fine-tuned, based on feedback from trainees, instructors and invigilators. One-week Type Training approved courses such as A320 difference courses, but also recurrent training and structure courses, have since been deployed.



The solution was audited and approved by the French OSAC, the UAE GCAA and the Chinese CAAC with feedback highlighting the quality of the solution and of the instruction.

Customers appreciated the fast adaptation to this new context and a maintenance training solution which met their expectations. Having examination sessions at the end of the training courses and training certificates delivered in sequence was another benefit. This generates significant time and effort saving for trainees, but also cost savings as there is no need to organise examinations at the end of a lockdown and travel restriction period.

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### **Customer experience:**



**Randa El-Radi, Head of Training, Technical Training Department,**  
**Mideast Aircraft Services Company** (MASCO - a subsidiary of Middle East Airlines)

"MASCO is keen to maintain the highest training standard of its technical staff. With the directives of MEA leadership a cooperation was launched with Airbus training to find solutions around the restrictions due to the pandemic and in compliance with the regulatory requirements. MEA and Airbus Training facilities are perfectly aligned with similar standards of equipment (hardware and software) which helped in obtaining the needed approvals. This experience proved to be successful and the trainees were relaxed and felt as if they were attending a standard training session in a normal classroom environment in full compliance with the imposed regulatory rulings. They were able to communicate with the instructor clearly and with no restrictions. Airbus' distant live training solution actually provided us with an excellent alternative to the theoretical training that suited our needs especially during these times."

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## More on maintenance training and returning to service

There are obvious benefits to this distance learning in today's restricted environment as well as in the longer term; however, it remains just one of the options available for training. Some trainees and training managers prefer face-to-face instructor-led courses such as the Airbus Competence Training (ACT) concept which sequences both theoretical and practical sessions.

And recently developed in both a traditional or a synchronous distance learning format is the Aircraft Return To Operation course. It provides maintenance personnel with a background knowledge of the systems needed to be operated and tested to return an aircraft to operation after being parked or stored.\* It reviews and highlights the most critical aspects of the work to be done and enhances awareness to minimize errors when performing the job.

\*Read more about parking and storing aircraft: [Protecting precious assets](#) - FAST April 2020

### ***Examples of synchronous distance learning for structure & maintenance training:***

(accessible for customers with login to AirbusWorld portal)

- [Structure Repair Manual \(SRM\) Course](#)
- [SRM Familiarization for Damage Assessment Course](#)

- Basic Structure Repair Manual
- Structure Maintenance and Repair Course
- Maintenance General Familiarization
- Base Maintenance Certifying Engineer Course
- Intra Family Cross Maintenance Qualifications CMQ (T1+T2)
- Trouble-Shooting Course
- Aircraft Return To Operation

The above courses are applicable to all aircraft types.

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### Since June 2020:

- **Over 50 theoretical courses now available as synchronous distance learning, with more to come**
  - **Over 65 synchronous distance learning courses taken by customers**
  - **Over 550 mechanics already trained, worldwide**
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## Adapting flight training for pilots

Airlines clearly needed urgent support when the Covid-19 crisis hit. Airbus took immediate measures to ensure that aviation approvals for its global flight training network were maintained, and to support the reduced operations for flight training and airlines.

Four essential steps for Airbus:

- Help customers manage their training during reduced operations, from ab-initio training to Type Rating, Recurrent Training & Checking.
- Support customers in preparing their return-to-operations.
- Maintain training approvals from the authorities and prepare for compliance with anticipated new regulations.
- Adapt to the next flight training world – anticipate, prepare, support both the customers and the industry with flight training solutions.

Distance-learning - primarily self-study with instructor support - has been extended where possible during the JOC/MCC, Type Rating & Recurrent Training programmes\*, whilst ab-initio pilot training has continued with theoretical training via videoconferencing. This concept was introduced and validated by the French Aviation Authorities (French DGAC) within a 2-day period after lockdown and consists of the Theoretical Knowledge Instructor providing lessons via a video conference to each cadet on line, with associated and specific guidelines.

Airbus also worked on a short training programme to allow pilots to return quickly to operations after a break: the 'refresher' or 'relaunch' programme\*.

\*See course list below

Note that classroom theoretical teaching by video was not previously accepted by regulations. Airbus has been working with the authorities to implement this, not only to the benefit of the students, but also of all Approved Training Organisations (ATO) under the authorities.

As well as basic solutions (such as the provision of health & safety guidelines; maintaining a 'ready' core team in each training centre and providing guidance to national authorities), Airbus also rolled out several strategic solutions. These included further deployment of classroom instruction via video-conferencing to allow ab-initio theoretical training to continue in the flight school network; increased distance-learning in the advanced flight training phase renewed recency programme which is adapted to the 'new reality'; and the Airbus Pilot Re-launch Program\* (APRP), providing several solutions for training for pilots who have been grounded for an extended period.

Virtual classroom instruction allows the instructor to hold a class by video, with all pilots or cadets connected in an interactive video environment. This complements the already existing e-learning modules covering system knowledge, the initial part of the Type Rating training for the A320, A330 and A350. The virtual classroom instruction was created and written by Airbus, and approved by the French national aviation authorities (DGAC). Meanwhile, APRP for pilots who have not flown for a few months provides training scenarios adapted to the individual, and incorporates the Competency-Based Training Assessment philosophy. It takes place over one day including both theoretical and practical (simulator) training.

***More on flight training courses referred to in this article:***

(accessible for customers with login to AirbusWorld portal)

- Recurrent Training & Checking
  - JOC Jet-Oriented Course - Module to expose or reinforce high altitude operations and commercial jet performance management on a commercial jet aircraft
  - Type Rating course - Module to acquire the necessary pilot competencies to obtain the A320, A330 and A350XWB family Type Rating, according to the Airbus standard
  - MCC Multi-Crew Cooperation - Module to expose or reinforce the trainee to multi-crew cockpit co-operations
  - Airbus Pilot Re-launch Program (APRP)
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## Conclusion

Despite the challenges of today's environment, operators and flight and maintenance organisations can still find training solutions, not only designed and adapted to meet their needs but implemented with safety always at the heart.

Synchronous distance learning and a wider use of video-conferencing provide additional and complementary options to more traditional learning – particularly useful and practical in today's climate but also in the longer term. And looking to the future, pilots and maintenance staff can prepare for a safe return to operations thanks to specific courses developed for the transition.

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