

# TURN EACH FLIGHT INTO **A LEARNING** OPPORTUNITY!

SELF-IMPROVEMENT, EFFICIENT TRAINING  
AND EXPERIENCE SHARING



THE **1<sup>st</sup>**  
**SOLUTION**

for line operations  
allowing crews to review  
own flights instantly  
whenever and wherever  
wanted!

# IMPROVE THE CURRENT APPROACH TO CREW DEBRIEFING,

WHICH IS SOLELY BASED ON PILOTS' PERCEPTION AND MEMORY...  
BY USING A MIRROR OF YOUR PERFORMANCE

Based on real-world data from the flight data recorder, CEFA AMS aggregates hundreds of parameters in order to create a reliable animation that everybody can understand.

CEFA AMS is a line operations tool allowing quick and confidential access to the data of your own flights in the form of an animation and as performance graphs for efficient debriefings, self-training, continuous self-improvement, and accurate reporting.

Until today, pilots' debriefings after a flight were only based on own perception and memory, which can erode over time. CEFA AMS allows comparing the perception with real facts.

CEFA AMS is a great EBT tool, allowing the creation of « observation windows » in order to analyze occurrences from regular flight operation.

The 3D animation is like a true movie with all details of the cockpit instruments, visual and aural warnings, pilots' actions, flight control actions, weather conditions, etc.

CEFA AMS is the **first tool having a hand showing pilot's action**, a fantastic way to distinguish between automation expected change, pilot action, or erroneous alterations.



100+  
AIRLINES  
CUSTOMERS

20+  
YEARS OF  
EXPERIENCE  
IN FLIGHT DATA  
ANIMATION

## THE 1ST PILOT'S APP

IN THE WORLD TO REPLAY FLIGHTS ON DEMAND !

CEFA AMS (Aviation Mobile Services) is a cloud-based mobile service using accurate and de-identified real-world flight data. The pilots' anonymity is fully guaranteed.





## ALL NIPPON AIRWAYS

"ANA envisions a world where each pilot explores safety and improves his own skills. CEFA AMS could be the new style of self-training. This service contributes to the emergence of a new culture of learning and communication. It has revolutionized the company culture regarding debriefings and the use of flight data. It has freed pilots' speech!"

**Hideo Morioka**, Senior Director of flight operation promotion and standardization

## RYANAIR

"We have 500 cadets on training... the feedback from them has been absolutely amazing! The average sector length for cadets up to line check has reduced quite significantly. It's a training tool, it's a safety tool, it's not only just for a cadet, it's for line pilots... Our class 2 and class 3 FDM events have definitely seen a reduction. It's absolutely groundbreaking!"

**Capt. Aidan Murray**, Chief Pilot – IASS 2021



## AMERICAN AIRLINES

CEFA AMS will play a critical role in supporting their pilot improvement program:

«By choosing the CEFA AMS, we are able to expand the FOQA program in a practical way. This will allow quicker feedback to our pilots and enhance the safety of our flying operation. CEFA AMS will upgrade the concept of immediate crew debriefing, which will improve our safety assurance in SMS.»

**Capt. John Deleeuw**, Managing Director – Safety and Efficiency

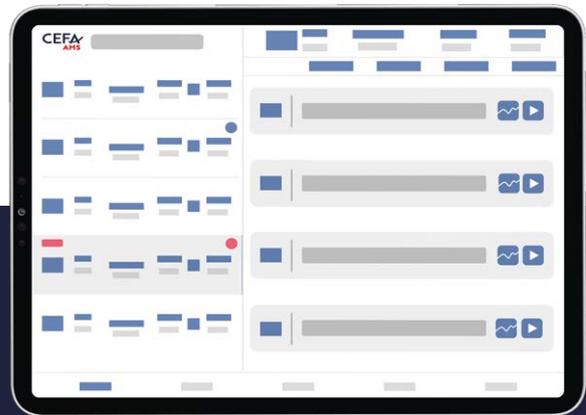
**15 MILLIONS**  
OF FLIGHTS  
ANALYZED BY  
OUR SOFTWARE  
USERS YEARLY

**30+**  
DIFFERENT  
AIRCRAFT  
COCKPITS

# Testimonials

# Benefits

- Immediate & objective crew centered **debriefing** using factual recorded data
- Easy **understanding** of flight segments, **showing** complex and/or dynamic situations
- Each pilot has a dedicated access
- **Improved quality of line training** allowing reduction of time and costs
- **Facilitated know-how sharing** (animation database for airport familiarization, best practices)
- **Safety** improvements by allowing pilots to share their view on real flight using factual data



- Pilots' **experience** leveraging & accelerating (home review)
- Ideal vector for **Safety II** implementation at pilot's level. Enables factual and easy reporting removing the doubts of own perception

# Answering some questions...

## WHAT ARE THE BENEFITS OF AN ANIMATION RIGHT AFTER LANDING?

...the system is conceived to deliver the animation shortly after landing. This is done in a private secured environment (reducing the exposure syndrome as no name is exposed toward the company). Having the crew still together, it's possible to understand not only the result but also, much more important, the process that led to an outcome different than the expectation. The animation also offers the possibility to share best practices and to learn also from minor occurrences that are today not detected with standard FDM software. It's only the crew involved, by analyzing the animation and still knowing the context, that is in the best position to understand occurrences and learn from such events.

## HOW CAN SAFETY-II BE IMPLEMENTED AT PILOT'S LEVEL?

...learning from all operations is the new implementation in aviation safety. An animation is the best way of sharing information, usually much easier to communicate than a lengthy report. By having real facts, the doubts can be eliminated, the accuracy and details of the reports are massively improved. It's already demonstrated. Airlines using CEFA AMS see a noticeable increase in voluntary reports. Besides this benefit, statistical data forwarded by CEFA AMS allows the company to realize areas of difficulty before a serious incident occurs (for example, an abnormal high demand of animations for a specific approach).

## WHAT ARE THE ADVANTAGES OF USING AN ANIMATION DURING A DEBRIEFING?

... by using the animation, the instructor can act as a facilitator that guides the trainee to understand by themselves the wrongdoings, to help them elaborate corrective behavior and find solutions to occurrences. It is a very simple way to increase the training efficiency during line operation. The same animation can later be used at home to review performances, set gates for future flights, and to confront once again the written debriefing with a mirror of the flight.

## HOW CAN AN ANIMATION HELP TO IMPLEMENT EBT DURING LINE OPERATION?

...in opposition to the simulator, where the observation windows are defined by the session, in the real life many interesting moments that present instructive contents are the result of external influences (environmental, ATC, technical, operational constraints...). CEFA AMS allows creating an animation from any moment during the flight. In such circumstances, during the debriefing, the instructor can first ask for the trainee's perception, then look at the animation in a crew-centered debriefing. A great improvement to really understand the crew situation awareness, communication and teamwork, task management and work distribution.

## WHAT ABOUT DATA VALIDATION?

...this argument is often asked as it is very important to flight safety when analyzing serious FDM events. CEFA AMS operates at another level; it is intended for normal operations. Events shown for the animation are obvious. They are alarms that have been activated in the cockpit during the flight. As the animation consists of the aggregation of dozens of parameters, a single erroneous value will not corrupt the whole process and can be easily detected by a regular pilot. In case of serious corruption, the software will detect it, and the possibility to create an animation in such case blocked.

## WHAT IS THE ADVANTAGE OF THE HAND TOOL OF CEFA AMS?

... one of the unique features of CEFA AMS is the display of an animated hand that helps detect any crew action and, therefore, any automation change resulting from the crew's inputs. Looking at the hand action in real-time is an easy way for understanding the application of procedures, the workload, and the work distribution of the crew.

## ABOUT US

CEFA Aviation, a privately held French company, enhances pilot training and flight safety, developing world-leading 3D animation software and services for the past 22 years.

The innovative solutions developed by its experts recreate flights with high detail and accuracy based on data from aircraft flight recorders. 100 major and regional airlines, cargo operators and investigative authorities on five continents are using the core software of the company, CEFA FAS (Flight Animation System) for safety analysis.

CEFA Aviation is an ISO/IEC 27001:2013 certified company.



### Request a demo now !

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### Click on the link

Visit our website for advanced solutions, our customers, our blog and testimonies

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ISO 27001

BUREAU VERITAS  
Certification



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