

## TRENDS

### STAFF TRAINING FOR NEW AIRLINES

The sustained growth in air transport is spurring the creation of new airlines, especially in emerging countries. Snecma helps these new players meet the two-pronged challenge of safety and economic performance through a complete slate of training courses.

All current studies confirm that the current strong growth in passenger traffic will continue for the next 20 years, as shown by the above chart. Growth is driven by emerging countries (led by Southeast Asia and India), where new airlines appear regularly. "Some of the new carriers do not come from the aviation sector," explains Jean-Thomas Rey, Marketing Manager Services. "They have to build up their knowledge of this sector, and hire the right people to ensure their development in this highly competitive and highly regulated sector. We have developed a training program keyed to their specific needs."

#### Safety and competitiveness

Snecma's new training offering complements its current programs, which more specifically target technicians (on-wing and shop engine maintenance, flight control recommendations, etc.). But as Jean-Thomas Rey points out, the management staff, including the director, maintenance and engineering managers, etc., also play key roles in the airline's operations. "They have two major responsibilities: flight safety, involving compliance with regulations and permanent fleet monitoring; and business performance, which means the most cost-effective operations. Through this new program, we want to share with the airlines our expertise in these areas."

NEW AIRCRAFT DELIVERIES



#### A complete, custom-tailored package

To develop its training program, Snecma calls on Safran University, its parent group's own institution of higher learning. "One of Safran University's main missions is to export its training courses to the Group's stakeholders," explains Patrick Samier, vice-president Safran Training Solutions. "By combining specific teaching capabilities with Snecma's expertise as engine-maker and the more general courses provided by the university, we have developed a complete package of trainings, which can be tailored to the needs of each airline. It allows us to stand out in this growth market!" Subjects covered include engineering, regulation (quality, human factors, etc. ), project management and Lean-Sigma continuous improvement initiatives. Courses are provided in several languages, either in classrooms (on customer premises or at the Safran University campus near Paris) or remotely, using different digital learning formats.

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## INNOVATIONS

### EXPERTS IN CONTRACT MANAGEMENT

**Snecma introduced integrated multidisciplinary teams in early 2015 to make service contract management even more efficient.**

At Snecma, innovation goes well beyond technology: the organization itself must also generate value. This is especially true for support services. As Alexandre Kamenka, head of contract management at Snecma, explains, "Airlines operate in an increasingly complex and volatile market. To help them address their problems, we have to be even more agile and innovative,



so we have revamped our organization." Starting in January 2015, service contract management is now handled by integrated contract teams, which have the skills and expertise needed to ensure maximum customer satisfaction.

#### **A more efficient, unified solution**

Each of these teams combines the customer program manager, shop visit manager, fleet manager, field service engineer and financial controller. This teamwork ensures a faster response and a more unified approach to managing services, in terms of decisions, priorities, etc. "It's a real innovation in the back office," notes Alexandre Kamenka. "In the front office, our customers retain their contacts and the relationships that have been built up over the years, while reaping daily benefits from this new organization."



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*Alexandre Kamenka*

*Each team combines the customer program manager, shop visit manager, fleet manager, field service engineer and financial controller.*

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## TECHNOLOGIES

### SMART TOOL CABINETS

**To ensure the constant improvement of service quality delivered by its MRO network, Snecma now deploys RFID (radio-frequency identification) technology to enhance tool traceability and management.**

The manufacture, assembly and maintenance of aircraft engines is subject to very stringent quality regulations. For example, the tools used for these operations must be regularly calibrated, and they also need careful monitoring to prevent foreign object debris and damage (FOD). Tool management also plays a major role in increasing productivity and rationalizing processes.

#### **Maximizing traceability**

Snecma has therefore started the installation of "smart" cabinets that can identify each tool stored inside, and also automatically track their movements and calibration history, to improve both its own operational performance and the quality of service delivered to customers. "The principle behind these cabinets is simple," explains Alexandre Brun, head of commercial engine maintenance at the company's Saint-Quentin-en-Yvelines plant. "Each tool is fitted with an RFID chip and is assigned a specific spot in the cabinet. In turn, the cabinet is connected to metrology software, to ensure that each tool is in the right condition and place. If a tool is placed in the wrong cabinet, or if it has bypassed its validity date, a signal is triggered so that all users are aware."



*By the first half of 2016, about 3,000 tools will be covered by this smart cabinet system at Saint-Quentin-en-Yvelines.*



#### **Gradual deployment**

The first smart cabinets are already up and running at Saint-Quentin-en-Yvelines and deployment will continue in the coming months. By the first half of 2016, about 3,000 tools will be covered by this system. After this initial trial, this very promising solution will be extended to Snecma's entire MRO network.

## JOB CORNER

### EMOS, AN ON-SITE TASK FORCE

**The watchwords for Snecma's EMOS (Engine Maintenance On Site) technicians are: availability, responsiveness and efficiency. They're always ready to hop on the first plane to provide technical assistance to our customers, as explained by one of our EMOS specialists, Jean-François Belin.**

A grounded aircraft, whether due to a technical problem or scheduled maintenance, means extra expense for the airline. And that's where Snecma's EMOS service comes into its own. "EMOS technicians have the skills needed to carry out any quick engine maintenance operation," explains Jean-François Belin. "We're mostly called on in emergency situations, such as foreign object damage, bird ingestion, etc., but also for scheduled maintenance, such as the replacement of life limited parts." Snecma's EMOS team mainly works on the CFM56 for now, but the team is gradually being expanded because of the upcoming into service entry of the new LEAP engine.

#### Two weeks max!

Customers just have to dial a single phone number, that of Snecma's CSC (Customer Support Center), which passes on requests to the EMOS team. Once they are at the customer's, EMOS technicians work directly "on-wing", or if the problem is more complicated, on the removed engine for a quick-turn change. Jean-François Belin explains: "We always try to resolve the problem on site. But if the operation turns out to be more complex, we send the engine back to one of our shops. In all cases, the repair shouldn't take more than two weeks. Our customers have a lot of money riding on their engines, and we have to be both quick and effective."

### Establishing mutual trust

The arrival of our EMOS technicians is always impatiently awaited! But with each visit, they build up a relationship of mutual trust with customers. "This relationship extends well beyond our missions, says Jean-François Belin. Once we return to Snecma, we share our feedback from each experience to enrich the technical database, covering tools, repairs, and even comments on new engine designs. The overriding objectives is always the same: reduce down time for our engines and cut operators' maintenance costs!"



Our customers have a lot of money riding on their engines, and we have to be both quick and effective."

Jean-François Belin,  
EMOS technician



## CUSTOMER'S viewpoint



**Mats Lundgren, SAS CFM56 Product Manager, Power Plant Maintenance Planning**

**SAS and Snecma signed an on-site maintenance contract in 2013: what does it entail?**



We had to replace a large number of CFM56-7B fan and booster modules because life-limited parts (LLP) had reached end-of-life. To avoid both interruptions in traffic and long turn-around time (TAT), we decided to have them replaced on site with exchange modules, calling on Snecma's EMOS team. The EMOS team has carried out about 20 operations since the beginning of the contract, which means we have not had to lease engines, bringing SAS significant savings.

**What do you think of Snecma's EMOS service?**

We have called on Snecma's EMOS technicians for more than 15 years, to handle AOG\* situations as well as scheduled maintenance. They are real professionals, highly organized and responsive. They are perfectly familiar with the company's products and their work is always meticulous, with outstanding quality. We are fully confident in their ability to support our fleet's operations.

**How do you see the future of your relationship with Snecma?**

SAS and Snecma (for CFM) are gearing up for the service entry of the A320neo with the new LEAP-1A engine, to make it as trouble-free as possible. This is a vital challenge for both of our companies!

\* Aircraft on Ground.

## QUICK NEWS

### A new spare parts distribution center

Snecma is currently building a new civil distribution center (CDC) at its complex in Villaroche, near Paris. Scheduled to be up and running in early 2016, this new center will offer some 36,000 square meters of storage space (388,800 sq ft), nearly double the current floorspace. Today, Snecma's CDC offers some 11,000 different parts for civil aircraft engines, including 5,000 that are frequently demanded. It dispatches nearly 400,000 parts a month, mainly for CFM56 engines, to independent or airline-affiliated maintenance shops. The distribution center is organized to keep customers at the center of the process. Customer relationship teams are in constant touch with their colleagues who manage inventories, especially critical parts.



Snecma's distribution center at Villaroche

**The Snecma Training Center**, whose clientele is 80% from outside the company, has launched a large-scale modernization plan to address user demand even more efficiently. The aim of this plan is to gear up for the advent of new engines, while also adapting training programs to the latest educational techniques, via e-learning and 3D displays. Interactive boards and tablets in the six classrooms will allow students to fully draw on their instructors' knowledge. The center has also planned a classroom accessible to persons with limited mobility. The extension to the training area will be completed towards mid-2016, nearly doubling floorspace from 800 to about 1,400 square meters (15,120 sq ft). "We will add another five engines to the seven we already use for hands-on training," says Pascal Rétif, Training Center manager. The engines will be reinstalled between February and May. The first LEAP-1A should be in place in Q1 2016 so the center can kick off the training courses for this new engine.

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### A new leadership reflects Snecma's ambitious service goals

"We want to continue improving customer satisfaction across the board, by enhancing industrial and contract management efficiency alike," says François Planaud, named Executive Vice President, Services and MRO division in the spring of 2015. "Our aim is to propose and deliver innovative and competitive MRO services that meet our customer expectations." Starting his career as manager of the CFM56 assembly line, François Planaud has held several strategic management positions at Snecma, in particular director of CFM programs, then head of the Commercial Engine division.



*François Planaud,  
Executive Vice President,  
Services and MRO division.*

### New repair capabilities for HP turbine nozzle

In 2016 Snecma will start the construction of a new repair line for high-pressure turbine nozzles on the CFM56, at the Châtelleraut plant. The entire current line will be transferred to a new building that offers additional production resources, and the line will be revamped to apply Lean Sigma practices. The overall aim is to double the facility's repair capacity within two years to satisfy the requirements of the different players in the CFM56 MRO market.

## DIARY

Meet Snecma's teams at these upcoming events

### MRO & Flight OPS IT, Bangkok

October 28-29, 2015 ■

### MRO India, Bangalore

December 1-2, 2015 ■

### MRO MIDDLE EAST, Dubai

February 3-4, 2016 ■

### MRO OPS IT Americas, Miami

March 8-9 2016 ■