



Face to face with Jean-Marc Thomas, Senior Vice President and General Manager, Airbus France.

BIO

1972
GRADUATES FROM "SUP'AERO" ENGINEERING SCHOOL.

1993
RESEARCH DIRECTOR AT AEROSPATIALE, AIRCRAFT DIVISION.

1999
VICE PRESIDENT, ENGINEERING & PRODUCTION AT AEROSPATIALE MATRA.

2000
SENIOR VICE PRESIDENT INDUSTRY, R&T, QUALITY, EADS CORPORATE.

2004
SENIOR VICE PRESIDENT AND GENERAL MANAGER, AIRBUS FRANCE.

Tarmac: pioneer in aircraft recycling

Several major companies have set up a joint venture called Tarmac Aerosave to dismantle aircraft at end of life and recycle parts and materials. Snecma Services is one of the founding members of Tarmac, along with Airbus.

By 2015, we should be able to recover, reuse or recycle some 85% of an aircraft's components, while meeting all safety and environmental protection standards. That was the conclusion of a 2006 project dubbed Pamela, or Process for Advanced Management of End-of-Life Aircraft. Led by Airbus and SITA France, the Pamela project proved that the recycling of aircraft parts and materials was feasible.

Several partners in the Pamela project are now members of Tarmac (Tarbes Advanced Recycling & Maintenance Aircraft Company) – the first company providing industrial-scale dismantling and recycling services for aircraft reaching end of life. Tarmac is jointly managed by companies from the aviation and environmental sectors, and was developed within the scope of the Aerospace Valley cen-

ter of competitiveness in Southwest France, in conjunction with the Midi-Pyrenees region.

A concept applicable worldwide

The Tarmac platform is now being set up at the Tarbes Ossun airport zone, with the long-term aim of establishing similar projects worldwide. Over the next 20 years, some 6,000 commercial aircraft will be withdrawn from service. By establishing itself as

the benchmark in this sector, Tarmac plans to take a healthy share of what is expected to be a large market.

In addition to its basic dismantling business, Tarmac will develop a complete range of services, from short-term aircraft storage to the recycling of parts and materials. This means that owners of both civil and military aircraft will be ready for upcoming European regulations on recycling products at end of life. The partners in Tarmac will also be able to recover parts and

"Airbus has signed an environmental charter" Jean-Marc Thomas



More than 6,000 commercial airplanes will be withdrawn from service in the next 20 years. This is the "Airplane Graveyard" in Mojave, California.

assemblies that could still be reused, in compliance with the laws governing air safety, environmental protection and traceability of spare parts.

Safran Magazine asked Jean-Marc Thomas, General Manager of Airbus France, to describe this vast undertaking in greater detail.

Safran Magazine: What does Tarmac entail for Airbus?

Jean-Marc Thomas: Airbus is still a relatively recent company. Our oldest aircraft entered service in the 1970s, so they are just beginning to reach end of life. The A300 will be the first model concerned, but these measures could also affect the A320, which is a real "frequent flyer", with multiple takeoffs and landings. We've been looking at the end-of-life issue for several years already, and we quickly concluded that dismantling and recycling was the best solution. Our aim of course is to facilitate more efficient reuse of every possible component, such as engines, electronics or pumps. Some of this equipment can be reinstalled directly on other aircraft, or refurbished and then reused. The same thing applies to structural parts, meaning fuselage sections or wing panels. Metals can

also be melted down for use as raw materials.

This approach reflects our sustainable development policy; in fact, Airbus has signed an environmental charter. But at the same time, it also reflects a major strategic objective, namely to ensure the traceability of all parts available on the market. Airbus applies a strict policy of guaranteeing the complete traceability of each aircraft and its constituent components, to meet both safety and environmental protection requirements. Tarmac is part of this approach, especially since the market for reconditioned parts is highly regulated and requires manufacturer seals.

To recover metals for recycling, workers apply an ordered separation process that depends on precise knowledge of the plane's makeup, in particular to classify metals by type. They have to distinguish between the different grades of aluminum, titanium, copper, etc., so that the resulting materials, when remelted and recast, can be used in the demanding aircraft construction industry.

Taking a longer-term view, manufacturers will have to apply "eco-design", meaning that the aircraft's original

design, choice of materials and assembly techniques are all selected to facilitate dismantling and recycling.

Will the Tarmac concept be deployed elsewhere?

Of course! Once aircraft are withdrawn from service they remain on the continents where they were used. So we want to make Tarmac-Tarbes the benchmark site, and gradually develop a worldwide network with Tarmac at its hub.

Where does Tarmac fit in the Aerospace Valley center of competitiveness?

Aerospace Valley was one of the 65 national projects chosen by the French government, which issued a call for proposals for centers of competitiveness. It is also considered a global hub, which is important. Since Tarmac was one of the three pivotal projects in the Aerospace Valley initiative, this international recognition helped attract European funding, with the French government, the region and industrial partners providing the balance. ■

P. MICHAUD

SNECMA SERVICES, INDUSTRIAL PROJECT LEADER

Jean Macheret, Vice President, Strategy and Development, Snecma Services



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Civil engineering work started at the Tarbes airport last April, and will take about a year. Tarmac is set to kick off operations in 2008.

Snecma Services has a 20% stake in Tarmac Aerosave, alongside Airbus France, TASC (an Airbus parts trading subsidiary), SITA (the waste recycling subsidiary of the Suez Group), Equip'Aéro, an equipment manufacturer and repair company, and Aéroconseil, an aeronautical and systems engineering consulting firm. Not to mention Caisse des Dépôts et Consignations (state-owned savings and

investment bank), which will co-finance the construction of the maintenance hall at Tarbes Ossun.

A pilot project

In addition to their financial contribution, Snecma Services and the other partners (especially Airbus France and TASC) will help identify the planes likely to be dismantled. Snecma Services teams are not directly involved in this activity, but we are firm believers in the concept. If everything goes smoothly, it will be duplicated in other parts of the world, and in this sense, Tarmac

is a pilot project.

Snecma Services' investment in Tarmac should prove advantageous in several ways. First of all, it positions the company as a responsible corporate citizen, focused on environmental protection and sustainable development.

Secondly, the number of aircraft reaching end-of-life will increase considerably in the coming years. Even though the CFM56 engine fleet is still relatively young, it is important to control the fate of these engines once they do reach the end of their useful lives – in

particular to guarantee the quality and traceability of used parts. Since Tarmac will be a controlled source of spare parts for CFM56 engines, it will give Snecma Services additional flexibility in offering service packages to customers: for example, we can propose recycled parts to reduce their bills.

Last but not least, Tarmac will enable us to recover certain strategic materials, such as titanium or nickel-based alloys, and reuse them in parts – provided of course that this recycling operation is cost-effective.