# ELEMENTS 2010 #2011 ANNUAL REPORT



# 37 Sustainable development: a Group-wide commitment

14 Highlights: a very eventful year







**MASTERING THE ELEMENTS** 

#### 02 MESSAGE FROM THE CEO

#### INSIGHT

### 04 OVERVIEW **115 years of mastering** the elements

After a century of industrial adventure, the company set up by Maurice Mallet in 1896 has become an international Group, and a world leader in aerospace equipment and systems.

#### **06 GOVERNANCE**

#### THE MANAGEMENT TEAM

Consistent with Group core values, its senior management team favors short decision-making paths and a close working relationship with its teams as the route to maximizing responsiveness, international attitudes and transparency.

#### 08 STRATEGY A proven strategy.

#### **11 VIEWPOINTS**

A shared dynamic focused on operational and technological excellence for the benefit of customers.

#### **14 HIGHLIGHTS**

A very eventful year.

18 KEY FIGURES Results that exceed expectations.

20 ZODIAC AEROSPACE SHARES Market outperformance.

# 22 BUSINESS AREAS Cutting-edge

# expertise

Contributing to improving comfort and life on board aircraft, to technological progress in onboard systems and to maximum safety in air transportation.

#### 24 CABIN INTERIORS

The value of a complete product range.

#### 28 AIRCRAFT SYSTEMS

Dynamic growth and innovation.

#### 32 AEROSAFETY & TECHNOLOGY Technical and sales

performance.

### 37 SUSTAINABLE DEVELOPMENT **A Group-wide**

# commitment

In 2011, the Zodiac Aerospace Group maintained its commitment to promoting environmental responsibility in every aspect of its business, stepping up its initiatives to guarantee the health and safety of its people and consolidating its industrial risk management policy. That commitment is formally stated in the Charter signed by the Chief Executive Officer.

#### **38 HUMAN RESOURCES**

Highly skilled and motivated teams.

#### 42 ENVIRONMENTAL PROTECTION

A collective challenge.

### **47** FINANCIAL RESULTS

# **Key consolidated** financial statements

48 Consolidated balance sheet

- so Consolidated income statement
- 51 Consolidated statement of cash flows

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21,157 employees worldwide

€2.75 billion<sup>(1)</sup>

€385.7 million<sup>(1)</sup>

60% growth in current operating income\*

€237.9 million

61% growth in EPS\*

14.0% operating margin\*

€4.58 published net earnings per share\*

38% debt/equity ratio

\* before IFRS 3.

(1) Before reclassification of held-for-sale operations (Driessen Services): €14.7 million in terms of sales revenue and €0.9 million in terms of current operating income.

world leader in aerospace equipment and systems for commercial, regional and business aircraft and helicopters, the Zodiac Aerospace Group is also a major player in aircraft safety and data communication.

Comfort and life on board aircraft, onboard systems and safety in flight and on the ground: the Group's three business segments – Cabin Interiors, Aircraft Systems and AeroSafety & Technology – develop and manufacture the most advanced solutions in all these fields. Working closely with their customers, they provide support right around the world with a comprehensive range of products and services designed to respond effectively to the new challenges of air travel.



# "Our recipe for success hasn't changed."

rowth, profitability and higher revenue from sales: the Zodiac Aerospace Group ends the 2010-2011 fiscal year with an excellent level of performance to report. The first thing to say is that our financial results exceed our forecasts. Our sales revenue rose by 27.9%

to €2.75 billion. Our current operating income was up by 60% to €385.7 million, raising our operating margin to 14%. We are also well ahead of our three-year plan, which projected 40% revenue growth compared with the 2009-2010 fiscal year. We also forecast operating margin growth of between 2.5% and 3% over the same period, but we have already achieved that level.

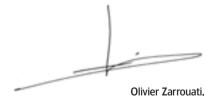
Zodiac Aerospace also achieved many successes in terms of manufacturing and sales during the fiscal

year. On completion of an intense period of testing in which our teams were closely involved, the Boeing B787 Dreamliner received its FAA type certification approval at the end of the summer, enabling this new aircraft to enter commercial service. In April, our subsidiary company Driessen was selected by Airbus as its future exclusive supplier of galleys for all its A320 family of aircraft. We also continued to press ahead with new product development during the year, and as a result of that effort Sicma Aero Seat was able to offer airlines its 'DragonFly' aircraft seat. Lighter than any of its predecessors, its addition to the range makes ours the most modern certified seat in the market.

Nevertheless, our recipe for success hasn't changed. Our growth is built on two fundamental pillars: the first is our policy of acquisition, which strengthens our world-leading positions in our areas of the market, whilst the second is our commitment to generating internal growth from the expansion of commercial air travel and building on our sales successes. We conducted two acquisition transactions during the 2010/2011 fiscal year: our purchase of the German company Sell GmbH completed at the end of September 2010, and the acquisition of the American company Heath Tecna, which began during the 2010/2011 fiscal year and was finalized on September 1, 2011. Our organic growth is underpinned by our intensified efforts in new product development, market penetration (especially in after-sales), cost control and more general improvements in operational performance. All of these initiatives have improved profitability, at the same time as reducing our working capital requirement-to-revenue ratio. Taken together, all of these developments have contributed to the strong growth seen in our cash flow, which funded almost all our capital expenditure and acquisitions for the fiscal year. It has also allowed us to end the fiscal year with a stable level of net debt, leaving intact our ability to make further acquisitions.

The 2010/2011 fiscal year also marked a significant step in our development, since we exceeded the sales revenue and current operating income levels achieved prior to the disposal of our Marine interests in 2007, whilst reducing our debt-to-equity ratio. This performance is all the more impressive given the fact that it follows a major crisis in the aerospace industry. The fact that the impact of the crisis on the Zodiac Aerospace Group remains limited underlines our ability to resist such pressures. The aerospace equipment market in which we operate remains fundamentally cyclical in nature, reflecting world economic growth. However, the trend for delivery cycles is reducing in amplitude. More effective management of new aircraft production rates by manufacturers, accompanied in some instances by program delays, is having a smoothing effect on fluctuations in deliveries. At the same time, the growth of the global commercial aircraft fleet is generating sustained growth in our after-sales market. This long-term trend towards reducing the extremes of cyclical market effects encourages us to look forward with confidence to the future.

Thanks to the involvement and commitment of its 23,000 people around the world, the Zodiac Aerospace Group continues with determination and confidence to pursue the strategy that has proved so successful for more than 30 years, and which has established us as one of the world's foremost aerospace equipment suppliers, with market-leading positions in cabin interiors, onboard systems and safety systems.



Chief Executive Officer

# **115 years of mastering** the elements

AFTER A CENTURY OF INDUSTRIAL ADVENTURE, THE COMPANY SET UP BY MAURICE MALLET IN 1896 HAS BECOME AN INTERNATIONAL GROUP, AND A WORLD LEADER IN AEROSPACE EQUIPMENT AND SYSTEMS.

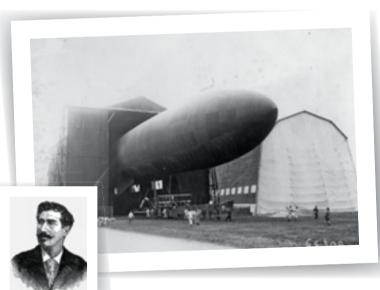
#### **PIONEER AND INNOVATOR**

Right from its very beginnings, Zodiac has contributed to the development of air travel, beginning with its designs for airships and aircraft. It was in the 1930s that the Zodiac spirit of pioneering innovation led the company to invent the inflatable boat concept, which contributed to its international expansion from the 1970s onwards. This period also proved to be a turning point for the Group, resulting in its 2007 decision to refocus on its aerospace core business and dispose of its Marine Segment.

#### RESPONDING TO NEW AEROSPACE CHALLENGES

Zodiac Aerospace supports its customers and anticipates their needs by developing products and solutions that address the latest challenges posed by the market. Developed by its three business segments of Cabin Interiors, Aircraft Systems and AeroSafety & Technology, these solutions focus primarily on: comfort and life on board aircraft, onboard systems and safety in flight and on the ground. Contributing increasingly as a complete systems integrator right through to certification, the Group is constantly expanding its range of products and solutions:

- reducing the weight and bulk of onboard equipment and systems to improve aircraft performance;
- developing ergonomic, modular concepts to improve maintenance and productivity;
- developing innovative systems that contribute to improving the safety of air travel;
- introducing new functions, innovative designs and comprehensive, integrated cabin solutions that make a real difference in the marketplace;
- expanding the range of after-sales services offered to airlines.



#### **MAURICE MALLET**

Famous for his air exploits in the late 19<sup>th</sup> century, Maurice Mallet experienced his first balloon flight at Issy-les-Moulineaux in 1879, before ballooning extensively alongside Paul Jovis - one of the most famous pilots of the day - and celebrities like Guy de Maupassant and Jules Verne. In 1896, he got together with two partners to form Société Mallet, Mélandri et de Pitrav. which would later become Zodiac, and which marked the beginning of his industrial adventure.

#### HISTORY

#### 1896

Maurice Mallet forms Société Mallet, Mélandri et de Pitray, specializing in aircraft design and manufacture and beginning the process that would lead to Zodiac.

#### 1908

He forms Société Française des Ballons Dirigeables et d'Aviation Zodiac, which offers companies the opportunity to use airships as flying advertising hoardings.

#### 1909

The Zodiac brand is registered. The new company then markets the first sports and leisure balloons, manufactured in the workshops of Maurice Mallet. The company also expands into the military market.

# 25

#### 1934

Zodiac creates a prototype inflatable boat, the ancestor of the famous 'Zodiac'.

#### 1952

Dr. Alain Bombard's crossings from Monaco to Tangier and Las Palmas to Barbados in a Zodiac Mark III popularize the craft.

#### 1970

Zodiac, which now designs and manufactures balloons fitted with meteorological sensors and equipment for the French National Space Research Center (CNES), creates Zodiac Espace. Reunited with the balloon, its original market, the company consolidates its position in the 'all inflatables' market.

#### 1978

The acquisitions of Aérazur and EFA lead to the creation of an aerospace segment, pointing the way towards the future Group.

#### 1980

The Group acquires the marine and aerospace divisions of Bombard-L'Angevinière and Sevylor, Europe's leading manufacturer of inflatables, and continues to grow internationally.

#### 1983

Zodiac becomes the first French company to be listed on the 'Second Market' of the Paris Stock Exchange.

#### 1987

The acquisition of Air Cruisers marks a new stage in international diversification.

#### 2005

The Zodiac Group now operates 60 companies worldwide.

#### 2007

The Group's acquisition strategy and commitment to a coherent manufacturing structure lead to the decision in favor of refocusing on its aerospace core business and disposing of the Marine Segment.

#### 2008

The Zodiac Group changes its name to Zodiac Aerospace.

#### **CABIN INTERIORS**

The Cabin Interiors Segment designs and markets turnkey aircraft integrated cabin interiors. It also supplies passenger and crew seating, sanitary equipment and galley inserts. Its technological advances enable this segment to make its contribution to upgrading and improving aircraft performance and interior comfort levels.

MORE INFORMATION

#### AIRCRAFT SYSTEMS

Recognized by all major international manufacturers, the scope of expertise offered by the Aircraft Systems Segment extends from civil and military aviation to space applications. This segment optimizes the hightechnology equipment and systems essential for fixed-wing and helicopter in-flight operations.

#### AEROSAFETY & TECHNOLOGY

With individual products and complete systems designed to deliver a high level of added value, the AeroSafety & Technology Segment contributes to advances in safety levels for aircraft, space vehicles and automobiles. Its innovative new products are attracting great interest from the major international manufacturers and operators of civil and military aircraft. MORE INFORMATION P. 32

#### SERVICES

Zodiac Services is an internal organization that operates worldwide to provide airlines with preventive and overhaul technical support and a range of after-sales services for Group products. Zodiac Services is structured into three main regions (USA, Europe and Asia) as the basis for its network of repair and distribution points.

# GOVERNANCE The management team

CONSISTENT WITH GROUP CORE VALUES, ITS SENIOR MANAGEMENT TEAM FAVORS SHORT DECISION-MAKING PATHS AND A CLOSE WORKING RELATIONSHIP WITH ITS TEAMS AS THE ROUTE TO MAXIMIZING RESPONSIVENESS, INTERNATIONAL ATTITUDES AND TRANSPARENCY.

#### THE EXECUTIVE BOARD AND EXECUTIVE COMMITTEE

The Executive Board and Executive Committee meet every two months to define and appraise key developments in the Group and its plans in terms of business mix, capital expenditure, mergers and acquisitions. They also monitor the targets and operational performance of each Group segment.

Chaired by Olivier Zarrouati, the Executive Committee brings together the Group's key functional and operational executives. At the end of the 2010/2011 fiscal year, the Executive Committee had nine members.

\* Executive Committee member at August 31, 2011. \*\* Until August 31, 2011.

#### MANAGEMENT TEAM

Olivier Zarrouati\*<sup>(1)</sup> Chief Executive Officer and Executive Board Member

Maurice Pinault<sup>\* (2)</sup> Deputy CEO, Development and Executive Board Member

Jean-Jacques Jégou<sup>\*(3)</sup> Vice-President, Administration and Finance

Yannick Assouad<sup>\* (4)</sup> CEO, Aircraft Systems Segment

Christian Novella<sup>\* (5)</sup> CEO, AeroSafety & Technology Segment

Mike Rozenblatt<sup>\* (6)</sup> CEO, Cabin Interiors Segment

Gilles Debray<sup>\*(7)</sup> CEO, Zodiac Services

Adri Ruiter<sup>\* (8)</sup> CEO, Driessen

Paul Verheul\*\* CEO, Galleys & Equipment division

**Pierre Antony Vastra**<sup>(9)</sup> Vice-President, Communication and Investor Relations







#### SUPERVISORY BOARD

**Didier Domange** Supervisory Board Chairman

Louis Desanges Vice-Chairman Marc Assa\* Élisabeth Domange Gilberte Lombard\* Edmond Marchegay\* Robert Maréchal Marc Schelcher Laure Hauseux\* Vincent Gerondeau\* François Calvarin (resigned in May 2011) **FFP** represented by Robert Peugeot

\* Non-executive member whose status meets the criteria set out in the AFEP/MEDEF code.



# **A proven** strategy



Maurice Pinault Deputy CEO – Development

#### Consolidating our leading position in high-growth markets

"As the market continues to become more concentrated, Zodiac Aerospace – as a world leader in aerospace equipment and systems – continues to apply its growth strategy of targeting those market sectors in which its aim is to achieve world leadership.

Combining external growth via a policy of selective acquisition, with internal growth via increased commitment to R&D, this strategy relies on the operational performance of the Group and the strength of its balance sheet, with particular emphasis on the profitability generated by its equity."

# An ongoing policy of selective acquisition

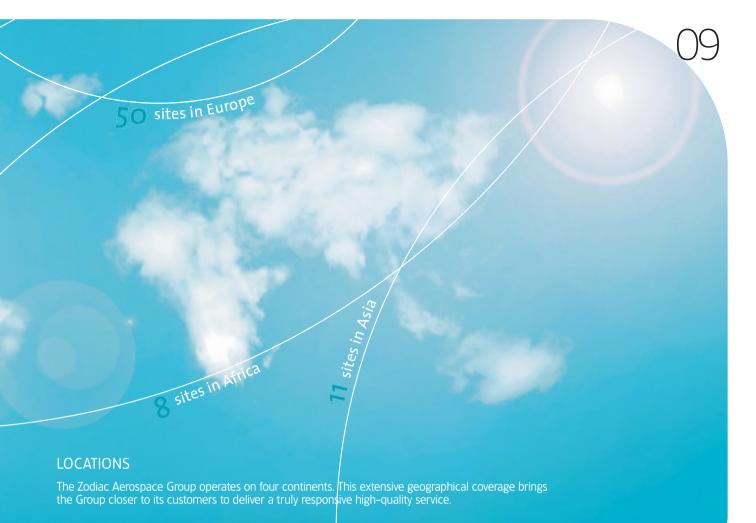
"The September 2010 acquisition of Sell GmbH, one of the world's leading designers and manufacturers of aircraft galleys and electrical galley equipment has strengthened the Group's position in its most important market of cabin interiors. Already the world leader in galleys for

Group strategy combines external growth via a policy of selective acquisition, with internal growth via increased commitment to R&D.



single-aisle airliners, it is now a leading player in the wide-body aircraft market. Initiated during the 2010/2011 fiscal year, but finalized only after the year-end, the acquisition of Heath Tecna – a leading player in the design, manufacture and certification of complex cabin interiors for the airliner cabin retrofit and new commercial airliner markets - complements Group expertise in cabin interiors and consolidates its position in the retrofit market. The Group also strengthened its presence in the anti-icing and de-icing systems market during 2010/2011, with its purchase of Swan, a company that has developed an innovative optical polarimetry process to detect the formation of ice.

The 2010/2011 fiscal year was also marked by the integration of Cantwell Cullen and Quinson, the effect of which has been to consolidate the Group's technical wiring protection and coupling business segments."



# Innovation: a fundamental necessity and a powerful driver of growth

"The ability to design and produce the most complex systems relies on the Group's ongoing commitment to R&D, and is supported by the availability of significant resources. As part of promoting fundamental innovation and encouraging cross-disciplinary discussion, the Group created the new Zodiac Aerospace Scientific & Technical Council in 2011. In response to constantly-increasing levels of regulatory constraints and ever-higher requirements in terms of quality and safety, the Group is permanently committed to making components more reliable, more efficient, lighter and less bulky. It is against this background that after two years of development and testing at its Roche-la-Molière facility it launched in 2011 a totally new fuel tank inerting system. This new system is designed to prevent the risk of explosion.

As a global leader in primary electrical power distribution systems for aircraft, the Group successfully qualified its electrical power distribution units for the Boeing B787 during the year, and continued work on developing the primary and secondary electrical power distribution systems for the Airbus A350 XWB. It also contributes to national and international fundamental research programs focusing on future technologies and new generations of aircraft. This work concentrates primarily on components that will enable aircraft onboard power levels to be increased safely by replacing hydraulic and pneumatic power sources with electrical systems as part of developing the More Electric Aircraft concept."

#### A comprehensive range of products and services to serve markets better

"In addressing the cyclical nature of the capital goods market, the Group has decided that rather than limit itself to producing equipment for new aircraft, it should also secure a strong position as a leading player in the retrofit (cabin refurbishment) and after-sales markets. This decision led to the 2007 introduction of Zodiac Services, an internal organization that •••



WORKFORCE



#### •••

operates worldwide to provide users of Zodiac Aerospace products with preventive and overhaul technical support and a range of after-sales services.

It has also resulted in the development of a strong Cabins core business serving aircraft manufacturers and airlines with a range of products and services covering both new aircraft and retrofit. The acquisition of Heath Tecna on September 1, 2011 reflects this move towards consolidation in the retrofit market. The business base of Zodiac Aerospace is very broad, and the bottom line is that over the long term, none of the Group's customers contributes more than 5% of its revenue."

#### A global presence

"As part of providing the local presence required to offer customers the responsive, high-quality service they expect, Zodiac Aerospace is increasing both its international presence and geographical coverage. With a strong base in the dollar zone, more than half of its workforce and approximately 70 of its operating locations are outside Europe. The Group is developing its business interests in the fast-growing Chinese market. Already a partner supplying seats to all the Chinese airlines, it has been working alongside aircraft manufacturer Comac on its next airliner since 2010. The Group also got together with local partners in 2011 to create a joint-venture based near Shanghai."

#### Operational excellence to maximize customer service and Group competitiveness

"Since 2010, Zodiac Aerospace has been pursuing an ambitious program to improve operational excellence in all its business areas, and has set up a dedicated organization called the Zodiac Aerospace Lean Council to accelerate deployment of Lean Management practices in all its companies. A set of shared monitoring indicators has been prepared and training programs introduced. Built around a set of good practices, methods and tools, the Lean concept goal is to increase customer satisfaction levels in terms of quality and lead times, at the same time as boosting Group operational performance. The key drivers of these improvements are operating method optimization and quality improvements, with particular focus on services."

#### ZODIAC SERVICES



**Gilles Debray,** CEO, Zodiac Services

# A TREND TOWARDS OVERALL IMPROVEMENT

In 2011, Zodiac Services introduced an overall improvement plan built around two complementary objectives: the first targets operational excellence and improved service delivery to customers with particular emphasis on delivery lead times, and the second focuses on strengthening our position in aftermarket sectors (spare parts, repairs and retrofit) and improving our ability to access enduser and operator markets directly. We have already launched a series of initiatives in

repair services: following the August 2010 official opening of a new facility in Tianjin, China, we have boosted our capabilities in the Middle East and opened a major facility at our new Roissy-en-France site at the end of 2011.

Our list of accreditations has also grown significantly, and we are working on accelerating deployment of solutions to technical issues affecting new aircraft. Boosting sales of spare parts is another challenge which influences both customer satisfaction and our own operational performance. So as part of optimizing our stock levels, we are using a specialist IT system which analyses historic spare parts consumption statistical data to forecast new optimum stock levels.

In terms of becoming more efficient, we have also upgraded our procedures, and since summer 2011, all our companies now use the same Enterprise Resource Planning (ERP) system. This move towards organizational harmonization and optimization will also apply to in-service support contracts.

# A shared dynamic focused on operational and technological excellence for the benefit of customers



Mike Rozenblatt CEO, Cabin Interiors Segment

# Putting customers at the heart of everything we do

"Our priority remains that of providing our customers with innovative solutions. To achieve that goal, we focus on operational excellence and put customers at the centre of our initiatives, with the aim of supplying them with the products they need at precisely the moment they need them. We've introduced a series of initiatives to improve the service we deliver, and we've also started work on deploying a new organization designed to specifically address the requirements of airlines.

This will provide us with a direct interface covering the product ranges offered by all our companies. We will therefore be in a position to forecast customer needs more effectively and supply them with integrated, innovative solutions with the level of responsiveness and efficiency they expect.

To support our commitment to innovation, we have set up the Zeo design and innovation studio as part of our new Customer and Product Center at Huntington Beach in California. Zeo will play a key role in improving the way we design our cabin interiors. Unlike traditional design studios, its design team works alongside a prototyping team, which will allow us to accelerate the manufacturing validation of concepts and innovations, thus reducing our time to market."

We are continuing the process of expanding our range of services and solutions. [...] Our goal is to supply customers with the products they need at precisely the moment they need them.

# Operational excellence to support continual growth

"Across all our business activities, we've also taken steps to support the continual growth of our industry, with particular emphasis on the commercial available sector.

Throughout the fiscal year, we increased our efforts to achieve operational excellence and extend our manufacturing capacities. In our Seat Division, we have reviewed our organizational structure, adopted robust planning tools, developed the Lean concept and boosted our production in cost competitive countries, like Tunisia and Mexico. In our Galley Division, we have reviewed the way we manage programs and engineering in order to boost our production capacity. We have also reduced our costs by taking advantage of procurement synergies more effectively.

# A broader range of services and solutions

"We are continuing the process of expanding our range of services and solutions. As part of that process, we acquired Heath Tecna on September 1, 2011. This company is one of the world's leading providers of complex cabin interior upgrades for airliners. Heath Tecna has significant capabilities in certification, installation and the production of cabin solutions. Innovation is also contributing to extending our range of services and solutions. There are many examples of our commitment in this area: new generation of galley inserts, new light-weight Dragonfly economy class seat and SlimPlus passenger seats, SiT advanced in-flight entertainment system and a new product for refurbishing Boeing B757 bulkheads.

11



Yannick Assouad CEO, Aircraft Systems Segment

#### Teams committed to meeting demanding standards in technology, reliability and safety

"Our customers recognize and appreciate the quality and reliability of our products, the excellence of our engineering teams and our competitive costs. The focus of our technology research and allocation of resources is continuing to offer the very best products worldwide . Our technology research effort is increasingly shared by all our Business Units and has been key to our successes in 2010/2011: our ongoing development of electrical systems for the Airbus A350 XWB, Bombardier CSeries, Global 7000 and Global 8000, as well as the market launch of innovative products like our new chemical oxygen generator, are testimony to that research effort. It's also what we rely on to address the longer-term technology challenge posed by the More Electric Aircraft concept. Electrical power is being distributed to more and more users, from flight controls to cabin air conditioning and wing deicing. The fact is that future aircraft will still be propelled by jet or turboprop engines, which will still drive electrical generators, but they embark increasing levels of electrical power, which requires increasingly-high voltages to optimize the weight of wiring, and an optimized electrical architecture to maintain aircraft safety. This development trend, which will save weight and reduce energy consumption, is a major R&D challenge for us in terms of delivering reliability and safety."

> The focus of our technology research and allocation of resources is continuing to offer the very best products worldwide.

# Teams committed to operational excellence

Improving our operational efficiency in general, and our on-time delivery metrics in particular, is another of our major challenges. We are responding by changing the way in which we select our suppliers and structure our supply chain from receipt of order through delivery. To meet our customers' expectations, we are also making progress in harmonizing our procedures - and especially those relating to contracts - without compromising the flexibility, responsiveness and speed of adaptation embedded in our corporate culture. We have also boosted our ability to compete by increasing the volumes we manufacture in cost competitive countries, like Morocco, Tunisia and Mexico. This move has the added advantage of reducing our sensitivity to exchange rate fluctuations."



Christian Novella CEO, AeroSafety & Technology Segment

# *Operational excellence: many initiatives are already in place*

"Our teams are developing comprehensive, innovative solutions that respond fully to the expectations of our customers and sustain our market growth. In 2011, in conjunction with all Group entities, all our teams were involved in addressing the major challenge of achieving operational excellence; the first goals in that process being production cycles and product quality. From management optimization and process simplification to eliminating tasks that add no value, many initiatives are already in place, with some already delivering positive results. For example, eliminating waiting time and superfluous tasks has reduced the manufacturing cycle for stitched de-icers, whilst improving the layout of some evacuation slide production workshops has delivered a space saving of 30%. This approach is being extended to include our entire purchasing and procurement chain as part of the Group-wide Zodiac Aerospace Supply Chain Improvement (ZASCI) project, which I am sponsoring at the Executive Committee level. We have introduced a series of ongoing projects since the summer of 2011."

Our prime operational goals are to improve production cycles and product quality.

#### Higher profitability

"Improving profitability is another major challenge. In responding effectively to that challenge, we have increased the manufacturing volume handled by our cost competitive facilities, like Soliman in Tunisia and Chihuahua in Mexico, where 1,000 of the segment's 4,500 employees now work.

For exactly the same reasons, we are ramping-up our manufacture of parachutes in South Africa. Another major focus during the year was the integration of the Canadian company Cantwell Cullen we acquired in 2010, and developing synergies between the Canadian, American and European units."

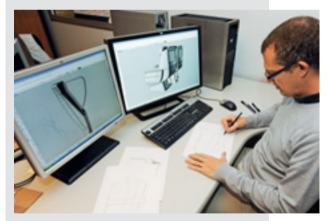
#### Striking the right balance between entrepreneurial culture and centralization is crucial to increasing the Group performance

"We have also modernized our information and manufacturing management systems. In 2011, the majority of the Segment's Business Units migrated to the Group's new M3 platform (ERP). The transition involved 9 companies, 19 locations and around 100 warehouses, and involved the training of 1,500 users. In more general terms, we have to strike the right balance between our highly decentralized entrepreneurial culture on the one hand, and the centralization crucial to Group R&D on the other, at the same time as developing management processes that respond directly and effectively to customer expectations."

#### ZSTC: delivering a more powerful and more integrated R&D function

As part of improving the efficiency of its technology research, the Group created its Zodiac Aerospace Scientific & Technical Council in 2010.

Its goals are to put in place the scientific building blocks required to ensure that its development programs deliver the desired outcomes and competitiveness, to optimize the structure of research across the Group and to integrate research more effectively into divisional strategies by providing every division with methodological support. Each division now has a roadmap setting out the basic building blocks required, the funding arrangements and future applications. The ZSTC has also contributed to the emergence of a network of experts whose expertise is available to all divisions, but especially the very smallest. The ZSTC also facilitates the development of high added-value crossover innovations by encouraging discussion between Segment experts. It is against this background that the Cabin Interiors Segment has been working with AeroSafety & Technology Segment to perfect a seatback airbag.



The same segment is also in discussion with Aircraft Systems Segment with the aim of making lighter, quieter and more energyefficient seat actuators.

The Council also has plans to facilitate the process of securing the kind of national and European future investment funding usually awarded to multidisciplinary and multi-technical projects.

# A very eventful year

# THE BOEING B787 ENTERS SERVICE

n September 2011, the Boeing B787 launch customer All Nippon Airways (ANA) received the first of the 55 aircraft it has ordered. Zodiac Aerospace supplies Boeing with a broad range of onboard equipment for the B787, including cabin interiors, primary electrical power distribution systems, windshield wiper systems, evacuation slides, water and waste



systems, wiring protection and crew oxygen systems. Zodiac Aerospace also supplies ANA with all the seats used in its B787 fleet.



Olivier Zarrouati flanked by the École Polytechnique students receiving awards for their innovative projects.

t was as part of the September 2011 Innovation Day event hosted by the École Polytechnique in Paris that Olivier Zarrouati presented the first Jean-Louis Gerondeau/ Zodiac Aerospace Award introduced in cooperation with the École Polytechnique

### THE FIRST JEAN-LOUIS GERONDEAU/ ZODIAC AEROSPACE AWARD WINNERS

as a tribute to the current CEO's predecessor. "We wanted to get back to basics, which ultimately means people", explains Olivier Zarrouati. The Jean-Louis Gerondeau/Zodiac Aerospace Award is designed to encourage the development to maturity of an entrepreneurial project conducted by the graduate college's doctoral students and recent graduates. Created by Zodiac Aerospace in memory of its former CEO Jean-Louis Gerondeau and his formidable spirit of entrepreneurship, it has been awarded in recognition three innovative company formation projects.

#### THREE WINNING PROJECTS

**PIONID:** Smartphone apps.

**SOURCELAB:** development of secondary particle sources in laser plasma interaction.

Fo'x: capturing natural daylight to create light pipes using optical fibers.

# PARIS AIR SHOW

he Zodiac Aerospace stand at the Paris Air Show (June 20 to 26, 2011) highlighted the status of the Group within the French aerospace industry and illustrated its many capabilities: a mockup more than 30 feet long presented the latest developments in passenger seating (specifically showcasing the Dragonfly, the lightest seat available in the market), galleys and galley equipment, and cockpit equipment (oxygen masks, control panels and warning panels).



### CABIN INTERIORS EXCLUSIVE SUPPLIER OF GALLEYS AND STOWAGE UNITS FOR THE AIRBUS A320 FAMILY

t the Aircraft Interiors Expo in April 2011, Zodiac Aerospace announced its appointment by Airbus as the exclusive supplier of modular galleys and stowage units for its entire A320 family of aircraft. The essential strength of the Group's proposal was the concept of a modular galley facilitating not only the initial aircraft configuration, but also any reconfiguration required as a result of layout changes. Deliveries are scheduled to begin in mid-2012.





The Premium Cabin mock-up presented for the first time at the 2011 Hamburg Air Show.

# CONTINUAL FLOW OF DESIGN AND INNOVATION **FROM ZEO**

mproving the design and development of Interiors: that's the mission of Zeo, the new design and innovation studio created by the Cabin Interiors Segment that brings industrial designers and advanced design engineers together and operates its own mock-up workshop and prototyping workshop with the aim of taking design and innovation to a new level and delivering the results to the market. Designed by Zeo, the first integrated Premium Cabin package was unveiled at the 2011 Hamburg Air Show using a mock-up featuring seats, backshells, cabin trim and lighting.

# CABIN RETROFIT EXPERTISE STRENGTHENED WITH THE ACQUISITION OF HEATH TECNA

inalized on September 1, 2011, the acquisition of Heath Tecna further strengthens Zodiac Aerospace expertise in airliner cabin interiors. Heath Tecna is a leading global player in the design, manufacture and certification of complex cabin interiors for the airliner cabin retrofit and new commercial airliner markets.

#### HEATHTECNA

**COMPANY FORMED:** 1951 **LOCATION:** Bellingham, Washington State, USA

EMPLOYEES: 600 REVENUE IN 2010: \$78 million



The Airbus A380 social zones concept devised and designed by Heath Tecna.

#### **ENVIRONMENT**

# IAEG INTRODUCES A MORE STRUCTURED APPROACH TO ENVIRONMENTAL ISSUES



n conjunction with ten other global scale manufacturers<sup>1</sup>, Zodiac Aerospace established the IAEG<sup>2</sup> in September 2011 with the aim of helping Aerospace companies to improve the way they address today's increasingly complex and restrictive environmental and health requirements, and to provide the structure for a shared approach that would deliver consistent responses across the industry. The IAEG also plans to promote the development of voluntary shared standards in areas such as chemical substances declarations and reporting requirements, and to provide a forum in which manufacturers can

#### discuss their approaches to responding to environmental requirements and regulations.

<sup>1</sup> Airbus/EADS, Boeing, Bombardier Aéronautique, Dassault Aviation, Embraer, GE Aviation, Northrop Grumman, Rolls-Royce, Safran and United Technologies Corp.

<sup>2</sup> International Aerospace Environmental Group.

#### **AIRCRAFT SYSTEMS**

# CERTIFICATION OF THE BOEING B787 ELECTRICAL POWER DISTRIBUTION SYSTEM

Granted at the end of August 2011 by the American and European regulators (FAA and EASA), certification of the Boeing B787 primary electrical power distribution system is a major source of pride for Aircraft Systems Segment. As part of the flight testing program, ECE worked with its partner Hamilton Sundstrand to develop and implement the electrical power distribution equipment modifications required to upgrade the level of protection against shortcircuits caused by external objects. The modified equipment was delivered in February 2011, after which in-flight testing for certification was able to resume.

#### **CABIN INTERIORS**

### OFFICIAL OPENING OF THE **MONTREAL** BUSINESS JET CENTER

Major contributor to the Group strategy for business aircraft interiors, this 16,000 square meter center opened in September 2011 brings together all the relevant operations into a single building for greater efficiency, at the same time as providing the capacity required for future growth.



The Airbus A400M at the 2010 ILA Berlin Air Show.

### COMPLETION OF CERTIFICATION FOR THE **AIRBUS A400M FUEL** GAUGING SYSTEM

Since the agreements signed between the A400M military transport aircraft nation state customers (represented by OCCAR<sup>3</sup>) and Airbus, the pace of development work on this aircraft has been very intense. The October 2011 target for fuel gauging system certification was achieved thanks to the enormous commitment shown by all the teams involved.

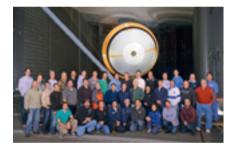
<sup>3</sup> The Organisation for Joint Armament Cooperation, whose members are France, Germany, United Kingdom, Belgium, Italy and Spain.

### AEROSAFETY & TECHNOLOGY EMAS ARRESTING SYSTEMS: HIGHER SAFETY WITH **LOWER ENVIRONMENTAL IMPACT**

The October 2010 installation of an EMAS emergency arresting system at Key West International Airport in Florida increased airport safety, at the same time as reducing its environmental impact. In order to comply with the safety requirements imposed by the Federal Aviation Administration (FAA), the airport had to extend its runway, which is bordered on one side by the Atlantic Ocean and on the other by mangrove swamps, as part of a project that would destroy more than 11 acres of mangroves. Approved by the FAA as the equivalent of a runway-end safety run-off area, the EMAS solution reduced that destruction to just over 4 acres. In compliance with a request from the Federal Environmental Protection Agency, the airport planted an area of mangroves twice the size in another location prior to commencement of the project.



The EMAS system installed at Key West International Airport.



# ADVANCING RESEARCH **ON MARS**

he Mars Science Laboratory mission blasted off from Earth on November 26, 2011 and is due to arrive on Mars in August 2012. Working on behalf of NASA, Zodiac Aerospace has designed and built the parachute used by the self-propelled Rover vehicle that will be landed on the planet. The largest parachute ever created for spaceflight, it measures more than 165 feet long, has a diameter of approximately 50 feet and uses 80 suspending cables. Designed to be deployed at Mach 2.2 in the atmosphere above Mars, it will generate a braking force of up to 66,000 pounds. The Group previously designed and manufactured the parachute used by the Phoenix probe that landed successfully on Mars in 2008.

### **CUTTING-EDGE TECHNOLOGIES** FROM ZODIAC DATA SYSTEMS ARE USED BY JAPAN IN THE AFTERMATH OF THE FUKUSHIMA CATASTROPHE

atellite images showing the extent of devastation caused by the Fukushima earthquake and tsunami of March 2011 were broadcast right around the world by Pasco at the request of the Japanese authorities. Pasco received its realtime satellite data via the Okinawa ground station supplied by Zodiac Data Systems. Group teams were also able to provide Pasco with the technical support required to ensure continuity of service. Zodiac Data Systems has also supplied Pasco with a second ground station at Hokkaido. US satellite operator GeoEye also supplied the Japanese authorities with satellite images via its own network of ground stations in the USA and at both poles. These satellite image receiving stations also use

Zodiac Data Systems, including the Cortex HDR (high datarate receiver).



Ground station supplied by Zodiac Data Systems.

# **KEY FIGURES Results that** exceed expectations

CONSOLIDATED SALES REVENUE<sup>(1)</sup>



CURRENT OPERATING INCOME

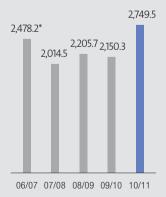


PUBLISHED NET EARNINGS PER SHARE

**€4.58**\*

\*Before IFRS 3

Consolidated sales revenue<sup>(1)</sup> (in millions of euros)



\* Including €476.2 million from the disposal of Marine Segment

**Consolidated sales revenue** by business segment (in percent)



59% Cabin Interiors

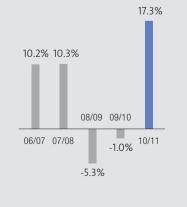
21% AeroSafety & Technology

Organic growth in consolidated sales revenue (in percent)

20%

Aircraft

Systems



**Consolidated sales revenue** by area (in percent)

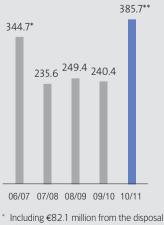


13.5% France 19.6% Other European countries 27.9% USA

14.6% Other countries in the Americas 24.4% Rest of the

world

**Current operating** income<sup>(1)</sup> (in millions of euros)



of Marine Segment

\*\* Excluding the impact of IFRS 3

(1) Before reclassification of held-for-sale operations (Driessen Services): €14.7 million in terms of sales revenue and €0.9 million in terms of current operating income.



**Jean-Jacques Jégou,** Vice-President, Administration and Finance

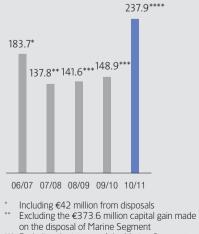
#### FINANCE Meticulous financial management to ensure continued growth

At the beginning of the 2010/2011 fiscal year, Zodiac Aerospace was targeting sales revenue growth of 15%, excluding dollar exchange rate effects and new acquisitions other than those already announced of Quinson, Cantwell Cullen & Company and Sell GmbH. Measured on these basis, the actual growth in our sales revenue was 28.4%, and when we look at current operating income, we can report that we have also significantly exceeded our forecast operating margin.

In terms of our balance sheet and debt position, we forecasted that the WCR (Working Capital Requirement)/Sales revenue and Net financial debt/EBITDA (Earnings Before Interest, Taxes, Depreciation and Amortization) ratios would remain stable relative to the end of the previous fiscal year. In reality, both ratios have shown an improvement. The WCR/Sales revenue ratio ended the year at 29.3%, compared with 32.7%: an improvement which, in association with the strong growth seen in earnings, has resulted in the Net financial debt/EBITDA ratio falling from 1.7 to 1.3.

This sound financial base enables the Group to continue on its growth trajectory and provides us with the resources needed to fund future acquisitions.

Net income (in millions of euros)



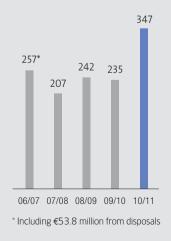
 Excluding the impact of the Marine Segment disposal and acquisition costs (IFRS 3)

\*\*\*\* Excluding the impact of IFRS 3

**Net profit margin** (in percent)



\* Excluding the capital gain made on the disposal of the Marine Segment \*\* Excluding the impact of IFRS 3 **Gross cash flow** (in millions of euros)



### ZODIAC AEROSPACE SHARES

# Market outperformance

**€4.58** PUBLISHED NET EARNINGS PER SHARE EXCLUDING IFRS 3

€1.20 NET DIVIDEND PER SHARE PROPOSED TO THE GENERAL MEETING OF SHAREHOLDERS



#### A SHARE PRICE RISE OF MORE THAN 18%

Between August 31, 2010 and August 31, 2011, the Zodiac Aerospace shares traded on the Paris Euronext market outperformed both the CAC40 and SBF120 indices, rising in value by 18.2% over the period compared with 3.9% for the SBF120 and 6.4% for the CAC40. As markets around the world were impacted by a stream of negative news about the global financial crisis, aerospace industry shares in general, and those of Zodiac Aerospace in particular, benefited from positive air travel statistics, which continued to show an upward trend throughout the period. Markets also responded favorably to the excellent set of results published by Zodiac Aerospace.

#### WELL-INFORMED SHAREHOLDERS

In addition to the information regularly provided to general meetings of shareholders, Zodiac Aerospace also provides its investors with a dedicated section of its http://www.zodiacaerospace.com website, providing real-time share price tracking and comprehensive financial and strategic information about the Group. This website also enables users to download press releases, the annual report and historical market share prices, as well as access to the (French and English language) presentations used by the company to present its full-year and halfyear results to financial analysts and institutional investors. These presentations are also broadcast over the Internet (as audio webcasts), with recordings made available via the Zodiac Aerospace website.

#### **CAPITAL STOCK**

At August 31, 2011, Zodiac Aerospace capital stock totaled €11,348,887.80, represented by 56,744,439 shares. The capital represented has increased as a result of new shares created to meet the need created by the exercise of stock options. It should be noted that the 56,744,439 shares referred to includes the 2,780,000 shares held by the Group as treasury stock. Detailed information about capital stock, potential dilution and stock option plans is given in the Investor Information section on pages 16 and 17 of the 2010/2011 Annual Report.

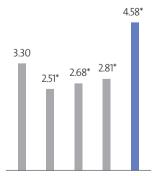
#### Capital Stock at August 31, 2011 (in percent)



29.5% Privately held / 40.5% of voting rights

70.5% Floating / 59.5% of voting rights

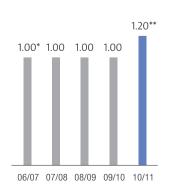
# **Net earnings per share** (in euros)



06/07 07/08 08/09 09/10 10/11

\* Excluding the impact of the Marine Segment disposal and IFRS 3

# **Net dividend per share** (in euros)



\* Ordinary dividend

\*\* Put to the shareholder vote



#### Zodiac Aerospace share price movements 2006-2011

Zodiac Aerospace is listed on the Euronext Paris market and is included in a number of all-share market indices: CAC Aerospace & Defense, CAC Industrials, CAC Mid&Small 190, CAC Mid 100, CAC IT, CAC IT 20, NEXT 150, Dow Jones Euro Stoxx, Dow Jones Euro Stoxx Industrial, Dow Jones Global Industrials, Dow Jones Stoxx 600, Euronext Next 150, SBF 250, SBF 120 and SBF 80.

The Zodiac Aerospace share forms part of the Deferred Settlement Service (SRD).

Within the ICB classification, the Group forms part of Sector 2700 (Industrial Goods & Services) and Sector 2710 (Aerospace & Defense).

- Euronext/ISIN code: FR0000125684
- Memo code: ZC



#### **CONTACT DETAILS**

**Online:** www.zodiacaerospace.com

#### **Postal address:**

ZODIAC AEROSPACE Service Actionnaires 61, rue Pierre Curie - BP 1 78373 Plaisir Cedex

#### e-mail:

actionnaires@ zodiacaerospace.com

#### Stock market data

- Low       45.16       25.15       18.85       22.41       44.9         Price at August 31       53.00       34.30       26.46       47.43       56.0         Number of shares at August 31       55,583,047       55,667,704       55,708,078       56,174,207       56,744,43         Market capitalization       2.945,901       1.909,402       1.474,036       2.664,343       3.182,223		2006/2007 fiscal year	2007/2008 fiscal year	2008/2009 fiscal year	2009/2010 fiscal year	2010/2011 fiscal year	
- Low       45.16       25.15       18.85       22.41       44.9         Price at August 31       53.00       34.30       26.46       47.43       56.0         Number of shares at August 31       55,583,047       55,667,704       55,708,078       56,174,207       56,744,43         Market capitalization       2.945,901       1.909,402       1.474,036       2.664,343       3.182,223	HIGH/LOW (CLOSING PRICE) IN EUROS						
Price at August 31       53.00       34.30       26.46       47.43       56.0         Number of shares at August 31       55,583,047       55,667,704       55,708,078       56,174,207       56,744,43         Market capitalization       2,945,901       1,909,402       1,474,036       2,664,343       3,182,225	– High	60.47	53.47	36.67	47.89	62.39	
Number of shares at August 31         55,583,047         55,667,704         55,708,078         56,174,207         56,744,43           Market capitalization         2,945,901         1,909,402         1,474,036         2,664,343         3,182,223	- Low	45.16	25.15	18.85	22.41	44.95	
at August 31       55,583,047       55,667,704       55,708,078       56,174,207       56,744,45         Market capitalization       2,945,901       1,909,402       1,474,036       2,664,343       3,182,225	Price at August 31	53.00	34.30	26.46	47.43	56.08	
		55,583,047	55,667,704	55,708,078	56,174,207	56,744,439	
	Market capitalization at August 31 (€000)	2,945,901	1,909,402	1,474,036	2,664,343	3,182,228	
AVERAGE DAILY TRADED VOLUME							
- No. of shares 225,065 325,065 310,140 270,555 180,89	– No. of shares	225,065	325,065	310,140	270,555	180,893	
- Capital (€000) 12,101.74 11,694.00 8,118.14 8,807.44 9,446.5	- Capital (€000)	12,101.74	11,694.00	8,118.14	8,807.44	9,446.91	

# Cutting-edge expertise

CONTRIBUTING TO IMPROVING COMFORT AND LIFE ON BOARD AIRCRAFT, TO TECHNOLOGICAL PROGRESS

33

23 37 21

### **CABIN INTERIORS**

A comprehensive product range for coherent cabin equipment, including turnkey aircraft interior solutions

#### Seats:

- First/Business class
- passenger seats. Economy class
- passenger seats.
- Pilot seats, crew seats. SiT – Seat integrated

- Technology: 04. In-Flight Entertainment
  - (IFE) systems
- **Cabin Integrated Interiors:**
- Walls, doors.
- Luggage bins. Side walls.
- Noise Insulation.
- PSU (Passenger Servicing Units).
- 11. Air Conditioning systems.

- 12. Cabin and Emergency
- lighting. Video Control Center, Passenger Communication
- 14. Smoke Detection and Fire Suppression.
- Galleys & Equipment:
- 15. Galleys, Galley inserts. 16. Trolleys.

- 17. Cargo Containers and equipment.
- Cabin Systems & Equipment and Cabin
- Controls: Water & Waste Systems
- Lavatories. Trash compactor.

27

9

22 28

13

5

20

High-tech equipment and systems to support essential aircraft functions

(22)

13

34

26

11

15

10

6

**Electrical Power Systems:** 20. Power management and distribution systems.

Cockpit & Lighting

- Systems: 21. Cockpit and displays.
- External lights. Windshield Wipers
- Fuel & Inerting Systems: Fuel Gauging systems. Inerting systems, pumps,
- Air-to-Air refueling systems.
- Sensing & Systems
- Management: 26. Onboard computers

- Oxygen Systems: 27 Regulator, PSU, COGS (Ceramic Oxygen Generation System), Masks
- Hydraulics & controls: Servovalves, Actuators.
- 29. Electrical Motors, Servo–Actuators, Sensors.
- Coupling & Equipment for Fluid Management: 30. Couplings, valves.



#### **AEROSAFETY & TECHNOLOGY**

and telecommunications

Systems: 31. Evacuation slides. 32. Life jackets, life rafts. Helicopter emergency

Helicopter energeney floatation. 33. Escape ropes. Interconnect Systems: 34. Electrical components: backshell, sleeves, conduits.

35. Electrical harnesses. Emergency Arresting

Systems: Arresting gear and nets, EMAS (Engineered Material Arresting

#### **Elastomer Technologies**

& Systems: Tanks. De-icing systems. Parachute & Protection Systems: Parachutes, Heavy Cargo parachutes. Ejection seat equipments. Anti-G protective suits.

Telemetry: Ground and airborne telemetry. 36. Onboard telemetry.
37. Mission Computer.
'Airbags': Airbags cushion for automotive.

Because technical support and after-sales services are a strategic

Zodiac Services was formed to provide airlines with the best-possible performance in terms of aircraft components availability and operational support. Zodiac Services therefore offers tailored solutions

offers tailored solutions supported by high-quality customer service: A comprehensive range of services: Zodiac Services offers a broad spectrum of after abroad spectrum of after-sales services, including spare parts,

www.services.zodiacaerospace.com

retrofit services and technical training.

Heightened responsiveness and greater proximity: Zodiac Services operates a global repair and spare parts distribution network that provides local support for airlines to ensure maximum responsiveness in terms of delivery and maintenance.



**CABIN INTERIORS** 

# **The value** of a complete product range

REPORTING A 39.5% INCREASE IN SALES REVENUE, THE CABIN INTERIORS SEGMENT HAD AN EXCELLENT FISCAL YEAR.

SALES REVENUE<sup>(1)</sup> €1,614.6

million



CONTRIBUTION

WORLDWIDE WORKFORCE



MARGIN



**OPFRATING** 





his impressive performance is the combined result of 11 months of consolidation for Sell, the Group company specializing in wide-body galleys and inserts (+16.6%), strong organic growth (+23.6%) driven by increased production levels for new aircraft, sustained business volumes in the retrofit market and productivity gains. The acquisition of Heath Tecna finalized in September 2011 further extends the complex cabin interiors skills of the Cabin Interiors Segment.

#### INTEGRATED INTERIORS: A GLOBAL LEADER IN CABIN DESIGN, PRODUCTION AND INTEGRATION

Zodiac Aerospace supplies aircraft manufacturers and airlines with complete floor-to-floor integrated cabin solutions. With increased production levels for the Boeing B787 and Airbus A380, the Cabin Interiors Segment has generated high business volumes as a result of its broad range of interior trim on the Boeing B787 (sidewalls, ceiling panels, etc.), as well as large content on A380 with the front / rear staircases and crew rest area. Higher levels of business were also generated with the development and certification of the Bombardier CSeries integrated cabin and the

(1) Before reclassification of held-for-sale operations (Driessen Services): €14.7 in terms of sales revenue and €0.9 million in terms of current operating income.

development of interiors for the Lear85 and HondaJet.

Deliveries for the Embraer 170/190, Bombardier CRJ, Dash 8 and for several other business jet programs continued during the year. In order to support the growth of this sector, a new business jet interiors integration center was opened in Montreal during the year. Production of the new lightweight luggage bin system for the Airbus A330/A340 ranges also began in the 2010/2011 fiscal year. Certification of an innovative material developed to refurbish American Airlines Boeing B757 sidewalls represents another promising milestone. This new material is 100% recyclable and delivers considerable improvements in terms of cost, weight, noise reduction and thermal performance.

#### **GALLEYS: COMPLEX CUSTOMIZED SOLUTIONS**

The Galley Division continues to grow strongly under airframers increased production rates. This is particularly true of the wide-body airliner seg-

ment, where the Cabin Interiors Segment offers highly complex, customized solutions focusing particularly on the Boeing B777 and Airbus A380 and A330. Business volumes in this sector also benefited from repositioning in terms of program management and engineering. In order to meet future demand and achieve operational excellence, the emphasis is now focused on increasing capacity and taking advantage of procurement synergies to reduce costs. With more than 175 configurations already certified, the MaxFlex Galleys range for singleaisle aircraft is still attracting high

FEATHER WEIGHT SOLUTIONS FOR WIDE-BODY AIRCRAFT • Weight savings of up to 75 kg (165 lb) with the new generation of galley inserts • Weight savings of up to 150 kg (330 lb) with the Hybrite trolley • Weight savings of up to 600 kg (1,322 lb) with the Herculite cargo container for fully-containerized aircraft **ZODIAC SERVICES** 

### CLOSER PROXIMITY = GREATER EFFICIENCY

By accelerating the growth of its repair solutions. Zodiac Services is able to offer a more local service to its leading customers in Europe and the Middle East. For example, the Monogram Systems lavatories and trash compactor repair facility relocated at the end of 2011 to a new, larger and more modern building at Roissy-en-France, with the aim of continuing the process of improvement introduced with the Lean projects and incorporating new repair services. Other successful projects at Monogram Systems include the opening of Boeing B777 lavatories and refrigeration systems repair facilities in Dubai in September and October 2011: a development warmly welcomed by airlines since it has reduced the repair turnaround time to a record low of five days.

levels of interest from the industry. Business levels remained buoyant in Europe, and Airbus has appointed the Group as the exclusive •••



#### KEY ENTITIES

C&D Adder (Colomiers in France) C&D Zodiac (Huntington CA, Garden Grove CA, LaPalma CA, Ontario CA, Rancho Cucamonga CA, Santa Maria CA and Marysville WA in the USA, Jacarei in Brazil and Quebec in Canada) Driessen (Alkmaar in The Netherlands, Houston TX, Garden Grove CA and Seattle WA in the USA, Amphur Muang Lamphun and Samutprakarn in Thailand, Singapore, Plzeñ in the Czech Republic and Surrey in England) EVAC (Wedel in Germany and Shanghai in China) Monogram Systems (Carson CA, Provo UT and Everett WA in the USA) Sell (Herborn and Buxtehude in Germany, and Colomiers in France) Sicma Aero Seat (Issoudun, Roissy and Colomiers in France, Hamburg in Germany and Everett WA in the USA) SIT (Plaisir in France) Weber Aircraft (Gainesville TX in the USA) Zodiac Cabin Controls (Hamburg in Germany)



#### •••

supplier for its A320 family. In the USA, delivery performance returned to 100% during the fiscal year, despite the launch of the MaxFlex II range and product modifications made necessary by new, stricter FAA regulations.

#### **A NEW GENERATION OF INSERTS**

A considerable amount of capital expenditure has been invested in developing the new, lighter generation of galley inserts to be marketed in 2012. For the A350 XWB, the new inserts will also be lighter, more reliable, and will improve food flavor. Connected to a common power supply, they will share the same highly innovative centralized control system now under development. This new product line will feature elegant, contemporary design and a highly intuitive user interface.

The flagship trash compactor and refrigeration systems products manufactured by Cabin Interiors Segment were the preferred choice of many airlines in 2011. Successes included two major contracts with Emirates Airlines: one for the supply of refrigeration systems for its new Boeing B777 fleet, and the other for the upgrade of its trash compactors fitted to its existing Boeing B777 and Airbus A330/A340 aircraft. The trolleys sector also grew strongly during the year, driven by the success of its elegant, ultra-light Hybrite trolley, which is offered in a broad range of different configurations and is entirely recyclable. The Herculite cargo container produced from composite and recyclable materials benefited from the

### Branching out into rail



Based in Wedel, Germany, Evac GmbH develops and sells sanitary systems for trains using a vacuum technology derived from our aircraft systems. With its innovative capabilities and its comprehensive range of Components and systems, the company has established itself as the world leader in this market. www.evac-train.com



The customizable Hybrite trolley.

strong recovery seen in airfreight. Through its major light weight benefit, it continues to increase its hold on the market from the 15% share it already has.

#### SEATS: LIGHTER AND MORE COMFORTABLE ALL THE TIME

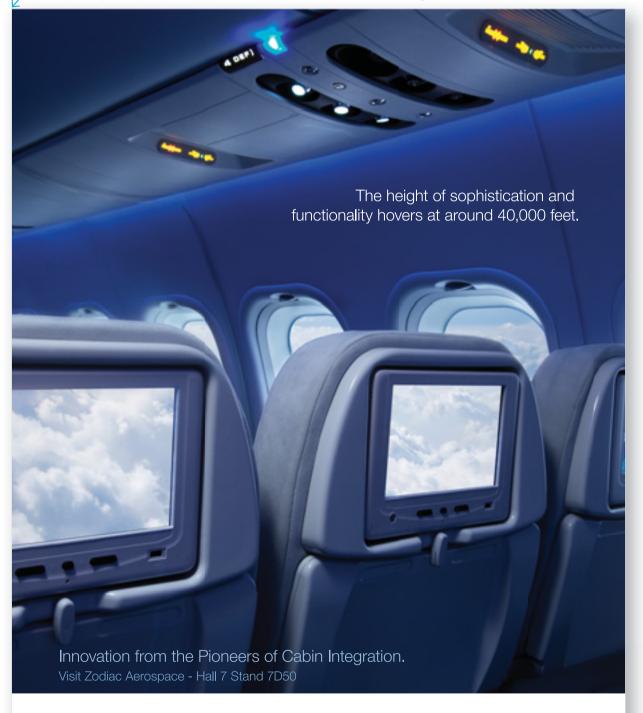
Greater comfort, improved ergonomics, lighter weight, custom design, reliability and safety: innovation is the key to maintaining the Group's global leadership in this market. With more than 140,000 seats manufactured during the fiscal year, the focus has shifted increasingly to the cost competitive countries of Tunisia and Mexico to keep up with manufacturing capacities. Cabin Interiors Segment extended its range with the introduction of Dragonfly, offered in multiple versions, it is the lightest economy class seat in the market at just 7.5 kg (16.5 lb). Offering additional weight savings as well, the SlimPlus seat improves also comfort levels and available space for regional aircraft passengers. Deliveries of the Cirrus lie-flat seat for the world's increasingly-demanding business class passengers remained at a high level throughout the year. Its reversed herringbone cabin layout creates additional space and gives every passenger direct access to the aisle. Its variable geometry makes it a highly flexible product for our customers.

# SIT: A SIMPLIFIED ARCHITECTURE TO REDUCE COSTS AND MAKE AIRCRAFT LIGHTER

iT (Seat in Technology) by Zodiac Aerospace is the new IFE (In Flight Entertainment) system. It is a full Audio / Video On Demand system that delievers as well gaming, airmap and multiple passenger services. Unlike other IFE systems, it uses seatback-integrated 8"-15" touch screens smart display units. Unlike legacy systems each monitor has integrated media content. SiT therefore needs no server to stream media content to the monitors. All that is required is an interface to the aircraft network for the passenger service system, safety functions and any additional

applications, such as an external camera. This simplified architecture makes SiT nearly 50% lighter than any other existing legacy system. Its simplicity and lower maintenance requirement significantly reduces the cost of ownership. Its higher reliability levels deliver the additional benefit of improved availability for passengers. SiT is already operational on Royal Jordanian and South African Airways flights. SiT was adopted during 2011 by Corsairfly for its Airbus A330 and Boeing B747 fleets in both new and retrofit applications.

Advertisement published in the March 2011 edition of Aircraft Interiors International magazine.



CABIN INTERIORS ADDER - C&D ZODIAC - DRIESSEN - MONOGRAM SYSTEMS - SELL GmbH - SICMA AERO SEAT - SIT - WEBER AIRCRAFT - ZODIAC CABIN CONTROLS ZOGIACAEROSAGE COM



#### AIRCRAFT SYSTEMS

# **The dynamics** of growth and innovation

THE AIRCRAFT SYSTEMS SEGMENT HAD A VERY SUCCESSFUL YEAR, REPORTING REVENUE GROWTH OF 17.1% (15.3% AT LIKE-FOR-LIKE CONSOLIDATION SCOPE AND EXCHANGE RATE). he segment benefited from the recovery in deliveries to executive aircraft manufacturers, increasing production rates for commercial airliner programs like the Airbus A320 and A380, the dynamic performance of Zodiac Services in the after-sales market and the full-year consolidation of Quinson. Productivity improvements and effective hedging against exchange-rate risks also contributed to these performances.

#### A GLOBAL LEADER IN ELECTRICAL POWER SYSTEMS

During the year, the Aircraft Systems Segment completed development work on the Boeing B787 primary electrical power distribution system, and continued the development of primary and secondary electrical power distribution systems for the Airbus A350 XWB. Working in cooperation with Hamilton Sundstrand, it was awarded the contract to provide primary electrical power distribution systems for the 100-seat Bombardier CSeries, and the electrical power distribution system for the same manufacturer's new Global 7000 and 8000 premium executive aircraft.

**ELECTRICAL POWER DISTRIBUTION SYSTEM** for the Boeing B787.

SALES REVENUE €563.2 million

CONTRIBUTION TO GROUP SALES REVENUE

**20** % WORLDWIDE WORKFORCE



OPERATING MARGIN







# FUEL MANAGEMENT: AN INNOVATIVE INERTING SYSTEM

With globally-recognized credentials of experience in fuel circulation, inerting and gauging systems for fixed-wing aircraft and helicopters, the Aircraft Systems Segment is one of the very few global suppliers to offer aircraft manufacturers complete fuel management systems.

Already contracted by Mitsubishi for its MRJ in 2008 and by Russian manufacturer Irkut for its MC-21 in 2009, the Segment was selected in 2010 by Canadian manufacturer Bombardier to supply the fuel circulation and gauging systems for its Global 7000 and 8000 executive aircraft, as well as its new OBIGGSbased inerting system. The Global 7000/8000 system also includes the fuel tank gas distribution sub-system and the controller that ensures the

reliable operation of the entire installation. Introduced by US authorities in 2008 as a requirement for most new aircraft, these inerting systems will be installed on board aircraft already in service with airlines, between 2011 and 2017.

# OXYGEN: A NEW GENERATION OF CHEMICAL GENERATOR

From oxygen storage, distribution and regulation systems to chemical generators and oxygen masks for crews, passengers and military pilots, the Aircraft Systems Segment offers a comprehensive product range, and supplies end-to-end oxygen systems for all types of aircraft.

#### THE NEW INERTING

SYSTEM developed and trialed at the Rochela-Molière test facilities uses polymer membrane gas separation technology to produce an inerting gas (poor in oxygen). The presence of this gas in fuel tanks considerably reduces the risk of fuel explosion.

#### ZODIAC SERVICES

## SUCCESSFUL NEW RANGES OF OXYGEN PRODUCTS

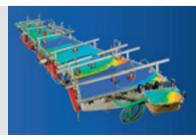
Whether portable or intended for fixed storage, the Group's new lightweight carbon fiber oxygen cylinders are attracting increasing interest from airlines in their constant quest to reduce aircraft weight, and therefore fuel consumption. The recently-launched range of chemical oxygen generators also delivers a massive weight saving, while adding an environmental benefit to the elimination of barium. Zodiac Services promotes these products all around the world, and the first commercial successes are already coming through. Examples include the signature of an exclusive contract with a major airline to supply all the chemical generators required for its fleet, and another contract to supply all of these products to another airline. Successes like these are the combined outcome of effective cooperation between the Zodiac Services marketing team, Zodiac Aerospace equipment producers and regional sales forces worldwide.



KEY ENTITIES AVOX Systems (Lancaster NY in the USA) ECE (Besançon, Niort and Paris in France) IDD Aerospace (Redmont WA in the USA)



IN-Flex and Quinson (Soignollesen-Brie in France) IN-LHC (Châteaudun in France) Intertechnique (Plaisir and Roche-la-Molière in France) Precilec (Aubervilliers, Auxerre and Châtellerault in France)



Technical data sheet for the EROS crew oxygen mask convertible MLD20-1 series.

# EROS® CREW OXYGEN MASK CONVERTIBLE MLD20-1 SERIES



ARCEAFT SYSTEMS Organ Systems





The power contactors assembly shop for electrical power distribution systems at the Niort plant.

#### •••

It has been contracted to supply the passenger oxygen system for the Comac 919 and the passenger and flight crew oxygen systems for the Bombardier Global 7000 and 8000. It has also certified its Eros mask removable goggles for use on the Boeing B747-8 and B787, and has supplied the same manufacturer with masks for the P8-Poseidon maritime aircraft that entered service in 2011. Another important step forward was taken during the year with the certification of a new generation of lighter, smaller chemical oxygen generators designed to deliver improved performance in conjunction with new high-efficiency masks.

#### SENSING AND SYSTEMS MANAGEMENT: MARKET BREAKTHROUGH CONFIRMED

Aircraft Systems Segment continued to break through into the market for onboard computers and applications. Airbus has adopted its solutions for the electrical power, deicing and engine interface management on its A350 XWB. A number of computers have also been developed for use with the inerting, pneumatic deicing and oxygen regulation systems fitted on board the A350 XWB.

# Marketplace success for seat actuators

As joint world market leader in seat power actuation systems, Aircraft Systems Segment has an impressive order book. Its equipment will be installed in the seats ordered by Emirates Airlines for its second batch of new Airbus A380 aircraft, and will be retrofitted to the fleets operated by Cathay Pacific, Singapore Airlines, Delta Airlines, American Airlines, Qatar Airways and Lufthansa.

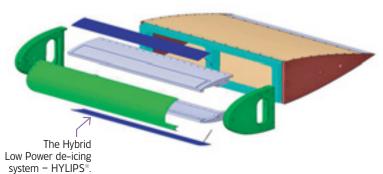
#### **TOUCHSCREEN SOLUTIONS FOR THE COCKPIT**

As development work on the external lighting and windshield wiper systems for the Airbus A350 XWB progresses, Aircraft Systems Segment has completed the development of the cockpit upper panels for the Gulfstream G650 and G280, and of the windshield wiper and landing gear control unit for the Boeing B787. The Segment is also designing and developing touch-screen solutions for aircraft cockpit and Power LED-based high-intensity lighting systems for landing lights.

# **DELIVERING HIGHER LEVELS OF** ONBOARD ELECTRICAL POWER

s the world leader in electrical power distribution systems, the Aircraft Systems Segment is now preparing to meet the needs of future aircraft, which will be increasingly reliant on electricity and will use high-voltage systems to deliver onboard electrical power at minimum weight gain. This trend raises a number of new challenges. To address them, new switching and protection components are now at research and development stages, with work focusing particularly on static technologies. Work is also underway on packing components and converters in tighter volumes to offer appropriate solutions that can cope with the increase in the level of power to be delivered and distributed. Some of the systems involved in this process of preparing for the More Electric Aircraft require

the use of innovative technologies, like the Hybrid Low Power (HYLIPS®) deicing system developed by Aircraft Systems Segment, which combines two deicing techniques: electro-thermal and electroimpulse. Alongside these innovations, Aircraft Systems Segment has also developed and tested a ice detection sensor fully compliant with the very latest icing detection standards. On the periphery of the More Electric Aircraft trend, the Segment is also contributing to second-generation modular avionics with the development of a series of Remote Data Concentrators (RDCs) in combination with low-power switching functions. These RDCs have sufficient computing power to host real-time loopback local management functions.



# Technical and sales performance

THE PERFORMANCE DELIVERED BY THE AEROSAFETY & TECHNOLOGY SEGMENT WAS DRIVEN LARGELY BY GROWTH IN EMERGENCY EVACUATION SYSTEMS, EMERGENCY ARRESTING SYSTEMS AND DECELERATION SYSTEMS.



he integration of the Canadian company Cantwell Cullen as part of the Interconnect Systems Division also contributed to the good results achieved for the fiscal year. Excluding Airbags Division, sales revenue grew by 15.3% (6.9% on the basis of like-for-like consolidation scope and exchange rate).

#### AIRLINER EVACUATION SLIDES AND HELICOPTER EMERGENCY FLOATATION SYSTEMS: WORLD LEADERSHIP

AeroSafety & Technology Segment saw very high levels of orders for its airliner evacuation slides during the year, as manufacturer production rates increased (especially for the Airbus A320 and Boeing B777), and delivery to Boeing of the first production emergency evacuation slides for the Boeing B787 aircraft supplied to All Nippon Airways. Contracted

SALES REVENUE



CONTRIBUTION TO GROUP SALES REVENUE



WORLDWIDE WORKFORCE









during the year by the Russian company IRKUT for its MC-21 and the Chinese manufacturer COMAC for its C919, the Segment is also developing evacuation slides for the Airbus A350 XWB and the Bombardier C-Series. Also during 2011, AeroSafety & Technology Segment delivered the two types of evacuation slides required for the Boeing B747-8.

Both products are highly innovative and patented: the upper deck slide has an inflatable reinforcing arch, whilst the slide for the lower deck uses a variable geometry deployment system. As part of the CORAC program partly funded by the DGAC', the Segment is working alongside industry partners to develop products using predominantly new materials and new manufacturing technologies.

#### KEY FIGURES FOR EMAS

55 systems operational in the USA
5 systems operational in Spain, China and Taiwan
100% success rate for the 8 systems that have handled real emergency arrestments since 1999

As the inventor of emergency floatation systems for helicopters, the

Group can also report a series of successes in this area during the year. The new system combining a floatation system and life raft in a single package was delivered to Bell Helicopter for its B429, which completed its first commercial flight in summer 2011. Emergency floatation systems for the new Eurocopter EC175 and its Z-15 Chinese version are also undergoing development. The fiscal year also saw deliveries of the emergency floatation system for the NH90 military helicopter manufactured by NH Industries.

<sup>1</sup> Direction générale de l'aviation civile (the French civil aviation authority).

# EMERGENCY ARRESTING SYSTEMS: A GOOD PERFORMANCE IN DIFFICULT CIRCUMSTANCES

Despite military budget cuts, AeroSafety & TechnologySegment, the global leader in emergency arresting systems (energy absorbers, arresting gear and nets, etc.), was able to report good results for the fiscal year, with a particularly strong performance from its new SMARTarrest computer-controlled system. A number of major contracts were secured during the year, including on Canada and India. •••

#### ZODIAC SERVICES

### EMERGENCY EVACUATION SLIDES: SUBSTANTIAL GROWTH IN REPAIR CAPACITY

In combination with the growth in fleet sizes, the obligation placed on operators to test evacuation slides and deployment systems approximately every three years is generating increasing demand for preventive maintenance, overhaul and repair. With 8 repair facilities in Europe (Braintree and Ars), the USA (Atlanta, Belmar and Van Nuys), the Middle East (Abu Dhabi) and Asia (Singapore and Tianjin), Zodiac Services already covers the world, but the network continues to grow with the opening during the fiscal year of a new facility in Abu Dhabi to repair Boeing B777 and Airbus A320 evacuation slides, some capacity expansion at Ars to include evacuation slides for the Boeing B787, and a similar expansion at Braintree for Boeing B777 slides. Following audit and certification by the relevant authorities, each facility publishes a list of capabilities detailing the equipment it is authorized to repair. The key strengths of Zodiac Services lie not only in its equipment and technical resources (test benches, etc.), but also in the training and accreditation of its teams.



#### **KEY ENTITIES**

Aérazur (Caudebec-les-Elbeuf, Cognac, Joué-lés-Tours, Loches, Merpins, Plaisir and Saint-Crépin-Ibouvillers in France) Air Cruisers (Belmar NJ and Liberty MS in the USA, and Chihuahua in Mexico) Cantwell Cullen & Company (Oakville and London in Canada) ESCO (Aston PA and Logan Township NJ in the USA) Icore International (Santa Rosa CA in the USA, and Chihuahua in Mexico) PISA (Durban in South Africa) Pioneer Aerospace Corporation (Columbia MS, Milton FL and South Windsor CT in the USA) Zodiac Automotive Division (Joué-lès-Tours and Pusignan in France, and Soliman in Tunisia) Zodiac Data Systems (Bretteville, Les Ulis and La Teste in France, Bergisch Gladbach in Germany, and Alpharetta GA in the USA)



#### •••

In civil aviation, the budgetary constraints of American airports slowed the rate of sales for EMASMAX<sup>2</sup>, the emergency arresting systems developed by the Group specifically for commercial airports. As a result, the focus has now shifted to emerging markets like China, India and Brazil, where new airports are now being planned and constructed.

#### INTERCONNECT SYSTEMS BENEFITS FROM INCREASED PRODUCTION RATES

As a global leader in its industry, AeroSafety & Technology Segment benefited during the year from the increased production rates seen on major aircraft programs, and particularly in demand for the harnesses used in A320, A380, B737 and B787 landing gear. The Segment has developed globallyacknowledged expertise in the hydraulic interconnect, electrical interconnect and protection products used in other systems, such as de-icing of helicopter rotor blades, signal distribution and electrical power distribution in fluid systems. Its products include the harnesses used for the NH90 helicopter fuel tank and blade de-icing systems. Its facilities at Loches and Slough in Europe, and Soliman in Tunisia have all experienced high volumes of business during the year.

#### ELASTOMER TECHNOLOGIES & SYSTEMS: A YEAR OF SALES SUCCESSES

AeroSafety & Technology Segment consolidated its leading position in the market for helicopter fuel systems during the year, winning a series of contracts including those for the new Kamov KA-226T and MIL MI-38 programs in Russia. Already contracted by Eurocopter for its EC175 helicopter, this Segment is also developing the fuel system for the Z-15, and supplied Eurocopter with the NH90 auxiliary fuel system during 2011.

#### TECHNOLOGY: SUSTAINED LEVELS OF BUSINESS FROM THE SPACE SECTOR

Impacted by military budget restrictions in general, and those imposed on U.S. mission recorders in particular, Telemetry Division volumes from the space sector held up well during the year, thanks to satellite launches and satellite imagery ground stations in emerging countries. As a specialist in the real-time processing of high data rates, AeroSafety & Technology Segment supplies telemetry equipment for the Ariane 5 rocket, including data acquisition systems, data transmitters, the remote destruction system and ground station arrays for rocket launch monitoring. During the fiscal year, the Segment supplied Astrium with the remote destruction system fitted to the Soyuz rocket launched in October 2011 from Kourou, and supplied the Canadian MDA Corporation with two satellite image receiving stations fitted with an innovative heating system for use as part of scientific missions inside the Arctic Circle. It is also working with Cassidian on the development of a mobile station for the U.S. Air Force Eagle Vision program. In flight testing, Airbus has chosen its new XMA networked telemetry system and has begun work on its qualification. Russian aircraft manufacturer Irkut has contracted the Group to supply flight testing equipment for its new MC-21. <sup>2</sup> EMASMAX is an aerated concrete-based material installed at the end of airport runways in the form of a bed of prefabricated blocks, which collapse in a controlled and reliable sequence when impacted by the wheels of an aircraft overshooting the runway. The result is safe deceleration and arresting of the aircraft concerned.

# INNOVATION THE EXPERT IN ANTI-CRASH TANKS

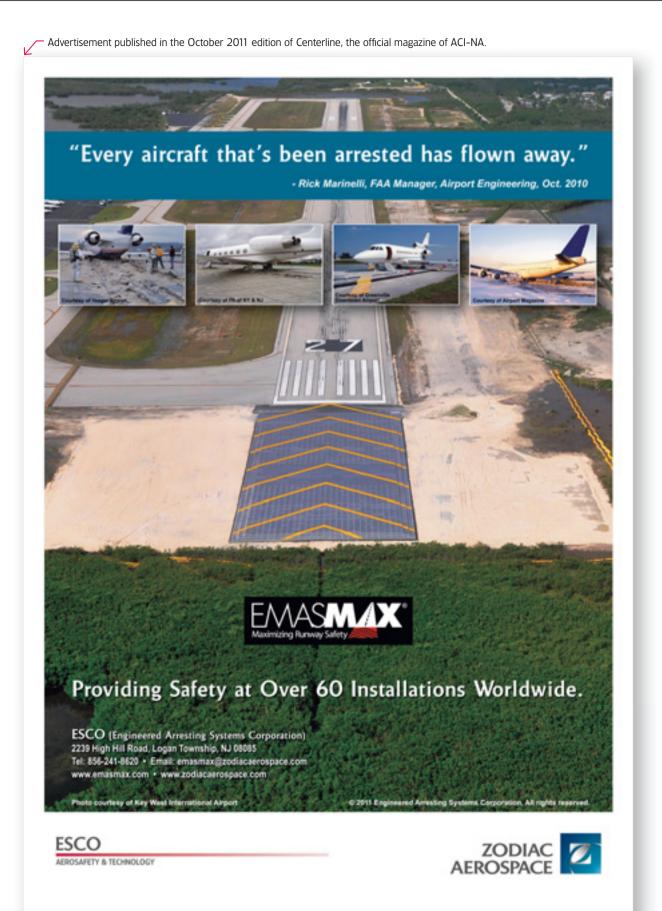
t Caudebec-les-Elbeuf, AeroSafety & Technology Segment produces the flexible tanks fitted to most new civil helicopters worldwide. Using dedicated software and digital simulation systems, its design department originates and develops solutions that combine smaller size with maximum capacity. In order to create tank walls that meet anti-crash specifications with maximum strength and minimal weight, the plant develops its own composite fabrics and resin mixes. From tank walls that self-heal following

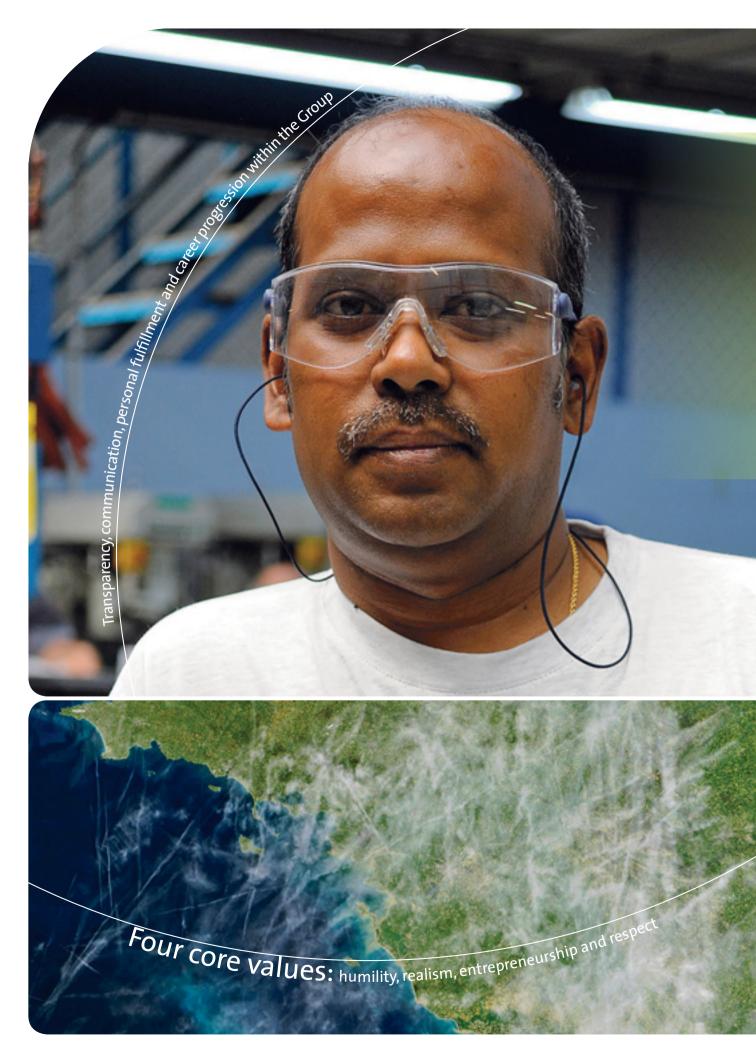
### Anti-crash fuel system for the MI-38

The Russian helicopter manufacturer MIL has contracted AeroSafety & Technology Segment to develop the anti-crash fuel system for its MI-38. Design work is already underway, with the first delivery scheduled for the second half of 2014. penetration by bullets to anti-crash layers, every conceivable technique is used to make these fuel tanks virtually indestructible. At the end of the development process, product performance is tested using on-site facilities to profile parameters such as vibration, shaking, waterproofing and crushing of the entire system installed in a purpose-made helicopter airframe. This facility also develops the auxiliary fuel tanks and systems used to extend the operating range of helicopters, especially in rescue and emergency response roles.



This new contract further strengthens the Group's position as a global market leader for helicopter fuel systems, including tanks and all associated system components (pumps, gauges, backshell, electronic control systems, etc.).





# Sustainable development: a Group-wide commitment

IN 2011, THE ZODIAC AEROSPACE GROUP MAINTAINED ITS COMMITMENT TO PROMOTING ENVIRONMENTAL RESPONSIBILITY IN EVERY ASPECT OF ITS BUSINESS, STEPPING UP ITS INITIATIVES TO GUARANTEE THE HEALTH AND SAFETY OF ITS PEOPLE AND CONSOLIDATING ITS INDUSTRIAL RISK MANAGEMENT POLICY. THAT COMMITMENT IS FORMALLY STATED IN THE CHARTER SIGNED BY THE CHIEF EXECUTIVE OFFICER.

#### COMMITTED TO CONTINUAL IMPROVEMENT IN ENVIRONMENTAL PERFORMANCE

The Group continues to implement initiatives designed to limit its environmental footprint. The effectiveness of these initiatives is monitored via a reporting system that measures the progress actually made. It actively encourages all its locations to introduce environmental management systems compliant with the ISO 14001 standard, and to continue the process of making further improvements to locations already certified.

Its Environmental Charter formalizes the Group commitment to reducing the amount of waste it generates, reclaiming at least 80% of the waste it does generate, cutting its greenhouse gas emissions (with the emphasis on reducing energy consumption), reducing its consumption of water and incorporating environmental considerations into the design and manufacture of its products and services.

#### SAFETY AND WORK-RELATED ACCIDENT PREVENTION: KEEPING UP THE PRESSURE

Uncompromisingly committed to the health, safety and wellbeing of its people, Zodiac Aerospace has put in place many initiatives to eliminate all causes of work-related accidents, and has introduced a reporting system for all its locations as part of monitoring the results achieved by these initiatives. The Charter sets out three priority goals in this respect: - to analyze all work-related accidents and all riskgenerating events;

 to ensure continuing evolution of the action plan designed to eliminate all hazardous situations identified;

 to continue implementation of risk-reduction initiatives and to prevent occupational illness by providing appropriate working conditions.

#### INDUSTRIAL RISK MANAGEMENT: A KEY FACTOR IN THE ENDURING DEVELOPMENT OF THE GROUP

The industrial risk policy contributes to the enduring development of the Group, which in 2008 introduced a risk matrix for each of its locations as part of stepping up its accident prevention and protection measures, focusing remedial action on selected sites. Supported by inspection reports prepared by engineers and insurance company risk management specialists, this policy has contributed to improving the process of protecting sites against fire and natural disasters, as well as to the deployment of business continuity plans in all the Group's most sensitive locations.

The Charter also identifies several priority action areas. In terms of chemicals and substances of very high concern, the emphasis is on continuing the process of incorporating the requirements of the European REACH regulation, the development of substitution programs and the prevention of accidental pollution.





#### HUMAN RESOURCES

**Highly skilled** and motivated teams

AS PART OF FURTHER STRENGTHENING THE COMMITMENT SHOWN BY ITS PEOPLE, THE ZODIAC AEROSPACE GROUP IS CONTINUALLY FOCUSED ON WORKING CONDITIONS AND SKILLS DEVELOPMENT.

#### STRENGTHENING OUR INTERNATIONAL PRESENCE

The Zodiac Aerospace Group hired a large number of new employees during the fiscal year (including nearly 500 in France), bringing its total workforce to 21,157 at August 31, 2011. Reflecting the attractiveness of the Group as an employer, this 21% increase (13% at like-for-like consolidation scope) is concentrated principally in Europe and the USA. 73% of Group employees now work outside France, and 62% outside Europe.

Zodiac Aerospace also encourages internal mobility, and the intranet Mobility database available in France for several years has now been extended to include all Group companies in the USA. As part of attracting the most talented people in the jobs market, it is welcoming more trainees and volunteers under the VIE<sup>1</sup> program (mainly in the USA),

<sup>1</sup> Volontariat international en entreprise (the International Voluntary Service in Business Program).

and extending its partnerships with leading engineering graduate schools. In 2011, the Paris air show provided an excellent opportunity to strengthen these partnerships and create more opportunities to meet with students via visits, conferences and fact-finding missions.

#### TRAINING: A POWERFUL DRIVER OF EFFICIENCY AND EXCELLENCE

The technical excellence of Zodiac Aerospace relies to a very large extent on the skills and expertise of its people. The Group invests substantially in training its employees, which attracted funding equivalent of 2.6% of payroll in France in the fiscal year, during which 54% of employees received training. From courses run in specialist centers to distance learning and e-learning, the training provided takes many forms, but is focused mainly on operational excellence and the Lean program.

Provided for all employees from top management to operators, training courses in Lean system basics have been completed by 48% of the workforce, as part of a program that will continue in 2012. These courses combine theory with practical examples, enjoyable exercises illustrating the principles of continual improvement and shop floor observations. The Group's French companies also provide practical training sessions in Lean management tools, such as problem solving and the mapping of physical and data flows (a five-day course). Some of these training sessions have involved employees from several different locations in order to benefit from a fresh outside take on the host location and to encourage the sharing of good practices. ••• LEAN BASICS TRAINING COURSES HAVE BEEN COMPLETED BY

53.5% of Cabin Interiors Segment employees

41% of Aircraft Systems Segment employees

**39%** of AeroSafety & Technology Segment employees

'1%

employees

Breakdown of workforce by area

39%

23%

Rest of

the world

employees worldwide

USA

27%

France

11%

Europe

(exc. France)

of Zodiac Services

**IN FIGURES** 

# **Permanent employees** (at August 31, 2011)

By segment	2009	2010	2011
AEROSAFETY & TECHNOLOGY	4,004	4,234	4,579
Companies based in: France	1,758	1,755	1,812
Europe (excl. France)	243	195	196
the USA	1,435	1,449	1,494
the rest of the world	568	835	1,077
AIRCRAFT SYSTEMS	3,422	3,501	3,841
Companies based in: France	2,629	2,638	2,740
Europe (excl. France)	20	17	22
the USA	691	669	691
the rest of the world	82	177	388
CABIN INTERIORS	9,358	9,718	12,653
Companies based in: France	1,047	1,063	1,102
Europe (excl. France)	688	701	2,096
the USA	5,218	5,179	6,007
the rest of the world	2,405	2,775	3,448
GROUP OPERATIONS			
French companies	76	87	84
Group Total	16,860	17,540	21,157*
Companies based in: France	5,510	5,543	5,738
Europe (excl. France)	951	913	2,314
the USA	7,344	7,297	8,192
the rest of the world	3,055	3,787	4,913

\* Includes 1,300 employees inducted following the acquisition made by Cabin Interiors Segment outside France and 3 employees inducted following the acquisition made by Aircraft Systems Segment outside France.

#### •••

The Group is also committed to expanding its apprenticeship program, which grew by 25% in France during the fiscal year, with 47 young people employed under apprenticeship schemes, each supported by an employee tutor.

#### **PRIORITIZING SAFETY**

The Group prioritizes safety in the workplace, and has set itself the goal of reducing the work-related accident risk to zero. To achieve that goal, it has set the series of priority targets contained in its Environment and Risks Charter of July 2011: to identify all hazardous situations and engage initiatives to remove them, to continue implementation of risk reduction initiatives, to prevent occupational illness by providing appropriate working conditions, and to analyze all work-related accidents and riskgenerating events.

Each site uses a Group-wide reporting system to monitor progress towards achieving these targets. A number of Group companies have also introduced psychosocial risk prevention policies and action plans. Individual locations also operate training and awareness programs, which were attended by nearly 40% of employees in France during the fiscal year. These training initiatives focused on new recruits (18% of the workforce), emergency response team members (10%) and workplace first aiders (9%), as well as on correct movements and postures, safety management and other safety-related issues. Most are two-part courses, including a theory session to learn or revisit the basics, followed by a practical 'shop floor' session.

#### COMBATING DISCRIMINATION AND PROMOTING DIVERSITY

Reflecting its core values through an ongoing commitment to pursue a social policy built on social integration through employment, equality of opportunity, combating discrimination and promoting diversity, the Zodiac Aerospace Group interacts with its employees, customers and partners on a totally non-discriminatory basis. In fulfilling its commitment, it provides recruitment information via websites and specialist organizations to promote the employment of disabled people and encourage access for women to a range of career opportunities, with the emphasis on technical roles.

The Group also operates professional performance and development evaluation processes with the primary aim of ensuring full compliance with the principle of equality of treatment on the basis of equivalent post, skills and responsibilities.

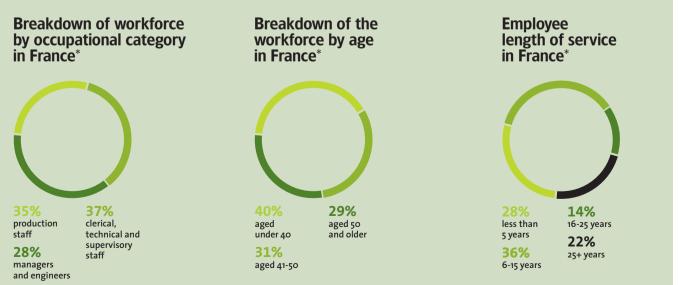


#### Four core values

## have shaped the culture of the Zodiac Aerospace Group and guide its actions.

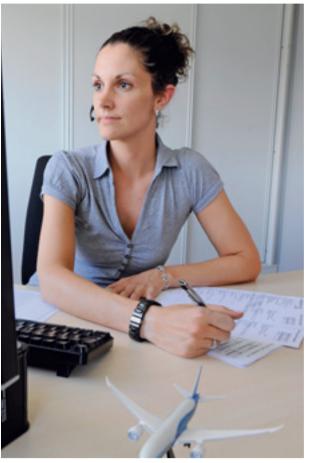
- Humility, as the basis for growth.
- Realism, as the basis for expanding the Group, its business and its results.
- Entrepreneurial spirit, which requires a decentralized organizational
- structure in which there is a fair level of authority and a well-developed sense of responsibility.
- Respect, which is the basis for all human enterprise and requires trust, sharing and mutual recognition.

For its employees, Zodiac Aerospace also promotes the principle of transparency, which, combined with communication, encourages personal fulfillment and career progression within the Group.



<sup>c</sup> Consolidated figures for all those French Group companies publishing social audits: 4,991 employees, or just under 90% of the French workforce.





#### **SOCIAL PROGRAMS**

# **MANY INITIATIVES** TO HELP CHILDREN AND YOUNG PEOPLE





he Group continues to work alongside the Petits Princes charity that makes dreams come true for seriously ill children. All over the world, Group companies are becoming increasingly involved with local initiatives focused on the education of young people and providing support for those in difficulty. In this report, we take a look at two examples: one in the USA and the other in Tunisia. In California, the Give and Grow Foundation set up by C&D Zodiac provides support for child education programs. Three projects were conducted in primary schools during 2011 with direct input from C&D Zodiac volunteers, involving the purchase and refurbishment of sports equipment, mural painting, a library refurbishment and planting of landscaped areas. The Foundation contributes to developing creative and motivating educational methods focused on

group working, public speaking and learning basic skills in engineering and information technology. It also provides educational grants to help the most talented progress to further education.

In Tunisia, Zodiac Aerospace Tunisie (ZAT) has established partnerships with schools, including supporting the junior high school at Chrifet with its implementation of a program to promote awareness of good environmental practices. ZAT also works with the national engineering graduate schools in Bizerte (ENIB) and Tunis (ENIT) to provide voluntary coordination of theory and practical courses in Lean production techniques, recruitment interview preparation advice and visits to Group manufacturing facilities. It also contributes as a member of the ENIB management committee, and offers internship training opportunities to final year students.

# A collective challenge

ZODIAC AEROSPACE IS COMMITTED TO CONTRIBUTING TO SUSTAINABLI DEVELOPMENT BY REDUCING THE ENVIRONMENTAL IMPACT OF ITS BUSINESS ACTIVITIES AND ITS PRODUCTS FOR THE FULL LENGTH OF THEIR LIFECYCLE, FROM MANUFACTURE TO RECYCLING. THIS COMMITMENT IS ALSO AN INTEGRAL PART OF THE NEW PRODUCT DESIGN PROCESS.

#### IMPROVED MANAGEMENT OF HAZARDOUS WASTE AND MATERIALS

In continuity with the voluntary policy applied over many years, the Group environment and risks charter introduced in July 2011 sets a formal target for reducing the amount of waste it produces by reclaiming at least 80% and recycling at least 40%. As part of achieving this target, the ECE team at Niort worked with a partner packaging company in 2010 to develop a honeycomb packaging material manufactured from recycled cardboard and wrapping paper to protect its Boeing B747 electrical power distribution system in transit. To reduce the volume of waste it produces, the Group plans to further reduce its consumption of paper, packaging materials and chemicals generating hazardous waste. Introducing substitutes for hazardous materials continues as part of the plan introduced by the Group in June 2009. All new chemicals introduced into the production process are tested and approved by Environment/Safety managers, and a report detailing all substitution measures is submitted quarterly to the senior management team. A database is used to monitor substitutions already in place – whether successful or not – and share the relevant information. As part of ISO 14001 certification, 2011 also saw the introduction of a system to quantify the environmental impact imposed by manufactured products and the materials used in their production.

BY THE END OF SEPTEMBER 2011, the Group had

the Group had replaced 25% of all 'substances of very high concern'.

#### INCREASED MONITORING UNDER THE REACH INITIATIVE

Imports of chemicals remain below one metric ton per year, enabling production units in Europe to maintain their Downstream User status. To enable its suppliers to prepare employee chemical substance exposure scenarios, Zodiac Aerospace provides information on the conditions surrounding the use of their products at each of its sites. Once these scenarios have been received, it will be possible to use a software package to confirm that the products concerned are being used appropriately by individual sites and, where necessary, to adapt processes or upgrade protection measures, for example. There is also a clear emphasis on introducing substitutes for hazardous materials through increased cooperation between Environment departments, design offices and technical departments. This cooperation also provides enhanced guarantees to Group customers regarding the traceability of its products in terms of potential chemical risks.

The majority of Group operating locations have introduced training programs on the new labeling and classification of chemicals in preparation for the effective introduction of the European CLP<sup>1</sup> regulation.

#### LOWER CONSUMPTION OF ENERGY AND WATER

Reducing greenhouse gas emissions is another major action area identified by the Charter, which

requires an annual reduction of 1% in the energy consumed by buildings (for heating and air conditioning) and production processes. Group operating sites introduced a number of initiatives during 2011 to optimize lighting and improve production facility insulation levels, for example. Energy audits conducted on a number of pilot sites identified areas for improvement, such as optimizing the transportation of materials and products, videoconferencing, moving to vehicle fleets that generate lower levels of CO2 emissions and introducing car sharing for business trips and commuting.

The Charter also confirms the Group's commitment to eliminating its consumption of 'once-through' cooling water, and reducing its consumption of general purpose and process water, accounts for 5% of all water consumed by the Group. After treatment, any remaining contaminated effluents are either processed on-site in waste detoxification plants or entrusted to approved specialist contractors for processing. All effluents are checked before discharge to ensure that they comply fully with legal and regulatory thresholds.

**PROCESS WATER** 

the use of which relates chiefly to surface treatment processes. •••

<sup>1</sup> Conditioning, Labelling and Packaging.

#### C&D ZODIAC Working towards ISO 14001 and OHSAS 18001 certification

As part of working towards obtaining these key certifications, C&D Zodiac has set up an online database to track environmental and risk evaluation data in all its sites, and assess its compliance with the relevant standards. C&D Zodiac has also introduced special logos to raise employee awareness of Health, Safety and Environmental issues, and these have now been adopted by the Group worldwide.

In terms of waste, the goal is to reduce, reuse and recycle. All metals, plastics, cardboard, paper and composite panels are now recycled under an initiative that has reduced landfill charges by 35% since 2009. In Ontario and California, C&D Plastics has succeeded in reducing its volume of final waste by 55%. C&D is also developing centralized recycling units for different types of waste. In Southern California, a further step will be taken with the introduction of processing of all waste by a specialist operator (sorting, recycling and payment). Being inventive can also be profitable, with one division manufacturing 800 pickleball racquets every month from unusual composite materials (pickleball combines elements of badminton, tennis and table tennis). Sales have jumped by 40% in just two years. Many initiatives are focused on protecting the environment and biodiversity. In Newport, a new catalytic converter eliminates 99.9% of polluting atmospheric emissions. In Marysville, a holding tank in which salmon have taken up residence has been cleared of invasive plants to allow the water to flow freely and give the fish more room to swim.



#### THE DEVELOPMENT OF ECO-DESIGN

The Group takes account of the environmental impact of the majority of its products throughout their lifecycle (including manufacture, transportation, use and recycling) using the Eco-Design package. Used by many units, this analytical software tool supports the choice of materials, components and packaging by directing users towards solutions that successfully address key environmental parameters, such as optimizing the consumption of raw materials, energy and water, eliminating the use of harmful products, recycla-



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MAKING AIR TRAVEL MORE ECO-FRIENDLY FOR CLEANER SKIES In accordance with ACARE<sup>2</sup> targets, Clean Sky will contribute to achieving the following between now and 2020:

- a 50% reduction in  $CO_2$  emissions and an 80% reduction in nitrogen oxide emissions

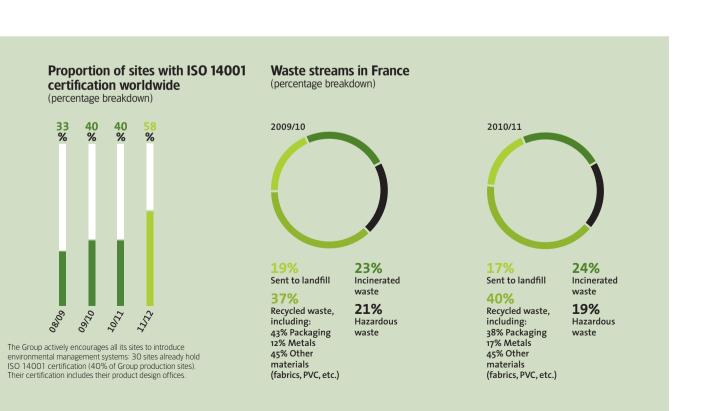
- a 50% reduction in perceived noise at ground level
- the introduction of an eco-lifecycle for aircraft.

bility and ease of dismantling. Teams working in the Group's design offices and departments have received training to familiarize them with this new resource. The concept of eco-design is gaining ground throughout the Group. For example, C&D ADDER in Toulouse plans to replace the glass fiber used in composite materials with lighter, more ecofriendly natural fibers for some applications. A new supply chain structure is currently at the planning stage. In another example, Sicma Aero Seat at Issoudun has used eco-design techniques to develop a new economy class seat that delivers an impressive number of benefits: 30% lighter weight, REACH Directive compliance, greater reliability as a result of reducing the number of components by 46%, improved demountability for easier maintenance and increased use of recyclable materials (+6%).

#### **MAKING PROGRESS THROUGH DISCUSSION**

Zodiac Aerospace encourages discussion and the sharing of feedback, both within the Group and externally through its participation in the many different commissions and working groups that facilitate discussion with counterparts faced with similar environmental challenges as part of arriving at recommendations on future regulation.

<sup>2</sup> Advisory Council for Aeronautics Research in Europe.



During the fiscal year, the Environmental Safety Managers of our ISO 14001 and OHSAS 18001 certificated sites in France and Tunisia once again conducted crossover audits focused on energy savings, greenhouse gas emissions and the monitoring of environmental reporting and new indicators.

As a member of the GIFAS<sup>3</sup> Environment Commission. Zodiac Aerospace contributes to the REACH working group and joined the Greenhouse Gas Emissions working group in mid-2011, and will contribute to the preparation of an industry guide on this issue. The Group has also been contributing to a similar guide on eco-design since September. In conjunction with ten other global-scale manufacturers, Zodiac Aerospace established the IAEG<sup>4</sup> in 2011 with the aim of helping companies to improve the way they address today's increasingly complex and restrictive environmental and health requirements, and to provide the structure for a shared approach. The Group is also a partner of the Clean Sky Joint Technology Initiative, a European research program set up with the aim of reducing the environmental impact of civil aviation and providing Europe with the engines, systems and aircraft of the future.

<sup>3</sup> Groupement des industries françaises aéronautiques et spatiales (the French Aerospace Industries Association).

<sup>4</sup> International Aerospace Environmental Group.

Its contribution to this program is structured around two key areas: the electrical power distribution system that will be the backbone of the 'More Electric Aircraft,' and the energy-hungry icing protection system, where the Group already offers innovative low-power solutions.

# Environmental performance measurement

- Accident with environmental impact: none itemized.
- Gradual pollution of soils: none itemized.
- Gradual pollution of the natural world: none itemized.

• Chronic pollution of soils: none itemized.

• At August 31, 2011: having examined the new ICPE (French installations classified for environmental protection reasons) headings, no site was subject to registration.

• At August 31, 2011: 4 sites had been the subject of regular ICPE inspections.

• At August 31, 2011: no sites had been the subject of greenhouse gas quota exchanges.

#### CONSOLIDATED DATA FOR FRANCE (25 SITES\*), NORTH AMERICA (20 SITES\*) AND OTHER COUNTRIES (4 SITES\*)

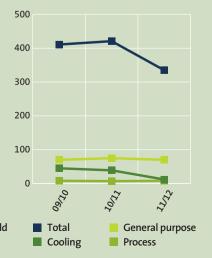
## Improved recycling of waste

(Percentage of waste recycled by area)



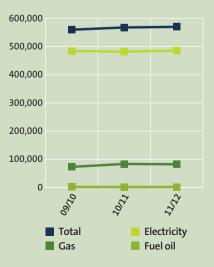
# Water: declining overall consumption

Monitoring and breakdown of consumption in thousands of  $m^3$  (approximately 65% of the Group's production units)



# Energy: on target for an annual reduction of 1% from 2012

Monitoring and breakdown of consumption in thousands of kWh (approximately 65% of the Group's production units)



#### The trend in key indicators

France**	2008/2009	2009/2010	2010/2011
	25 sites*		,
ENERGY (thousands of kW)			
Electricity	401,347	404,608	406,709
Gas	22,941	23,045	21,408
Fuel oil	2,239	1,996	2,011
	426,527	429,649	430,128
WATER (thousands of m <sup>3</sup> ) General purpose	54	57	56
Cooling	45	39	12
Process	8	7	8
TOTAL	107	103	76
WASTE (metric tons)	107	105	70
Sent to landfill	552	682	611
Incinerated	671	852	824
Packaging	494	743	678
Materials recycling	1,120	1,330	1,410
TOTAL	2,837	3,607	3,523
% Reclaimed	81%	81%	83%
North America***	2008/2009	2009/2010	2010/2011
	25 sites*	2003/2010	2010/2011
ENERGY (thousands of kW)			
Electricity	78,203	72,459	73,021
Gas	48,222	58,630	59,025
Fuel oil	-	-	-
Total	126,425	131,089	132,046
WATER (thousands of m <sup>3</sup> )			
General purpose	-	-	-
Cooling	-	-	-
Process Total	- 288	300	245
WASTE (metric tons)	288	500	245
Sent to landfill	1,406	1,807	1,790
Incinerated	148	105	108
Packaging Materials			
recycling	1,450	1,832	1,690
Total	3,004	3,744	3,588
% Reclaimed	53%	52%	50%
Others****	2008/2009	2009/2010	2010/2011
	25 sites*		
ENERGY (thousands of kW)			
Electricity	4,878	5,169	6,023
Gas	2,100	1,996	2,010
Fuel oil Total	6,978	7,165	- 8,033
WATER (thousands of m <sup>3</sup> )	6,978	7,105	8,055
General purpose	16	18	14
Cooling			
Process	_	_	_
Total	16	18	14
WASTE (metric tons)			17
Sent to landfill	148	111	122
Incinerated	36	56	54
Packaging Materials	466	534	528
recycling			
Total	650	701	704
% Reclaimed	77%	84%	83%

\* On a like-for-like basis.

\*\* France: 93% of production sites.

North America: 60% of production sites.
 Others:1 site in the UK, 2 sites in North Africa and1 site in Thailand.

# Key consolidated financial statements

THE FULL SET OF FINANCIAL STATEMENTS CAN BE FOUND IN THE 'FINANCIAL STATEMENTS' SECTION OF THE ZODIAC AEROSPACE 2010-2011 ANNUAL REPORT

# **KEY CONSOLIDATED FINANCIAL STATEMENTS**

# Consolidated **balance sheet**

ASSETS

(in thousands of euros)	August 31, 2011	August 31, 2010
Goodwill	1,166,398	1,095,352
Intangible assets	322,017	241,197
Property, plant and equipment	256,272	244,229
Investments in affiliates	480	569
Loans	355	529
Other non-current financial assets	10,872	11,887
Deferred tax assets	469	3,374
Total non-current assets	1,756,863	1,597,137
Inventories	601,458	507,867
Current tax assets	30,113	22,158
Trade receivables	490,351	474,182
Advances to suppliers and employees	8,271	7,539
Other receivables	1,508	1,094
Prepaid expenses	10,034	10,641
Other financial assets:		
- negotiable securities	-	_
- loans and other current financial assets	227	248
Cash and cash equivalents	224,726	164,723
Total current assets	1,366,688	1,188,452
Held-for-sale assets (1)	18,721	12,855

TOTAL ASSETS

3,142,272 2,798,444

(1) At August 31, 2011, this figure included €12,003,000 represented by buildings held for sale, and €6,718,000 represented by a Driessen repair business in the process of disposal.

### EQUITY AND LIABILITIES

(in thousands of euros)	August 31, 2011	August 31, 2010
Capital	11,349	11,235
Share premiums	99.031	84,076
Consolidated reserves and net income	1,478,098	1,379,998
Currency translation adjustments	(141,980)	12,990
Restatement of financial instruments and other fair value instruments	(2,028)	652
Net income	238,256	148,473
Treasury stock	(91,514)	(89,915)
Equity after minority interests	1,591,212	1,547,509
Minority interests:		
- in equity	915	1,111
- in currency translation adjustments	(143)	(53)
- in consolidated net income	(386)	(196)
Minority interests	386	862
Equity	1,591,598	1,548,371
Non-current provisions	53,859	32,285
Non-current debt	662,667	511,655
Deferred taxes	107,648	75,201
Total non-current liabilities	824,174	619,141
Current provisions	57,448	44,485
Current financial liabilities	147,416	167,457
Accounts payable	259,678	223,387
Amounts owed to customers	53,525	31,404
Liabilities to employees and payroll liabilities	141,711	119,765
Current tax liabilities	27,837	16,195
Other payables	27,476	18,709
Deferred income	9,617	9,530
Total current liabilities	724,708	630,932
Held-for-sale liabilities (1)	1,792	-
TOTAL EQUITY AND LIABILITIES	3,142,272	2,798,444

(1) At August 31, 2011, this amount related to a Driessen repair business in the process of disposal.

# Consolidated income statement

(in thousands of euros)	Year ended August 31, 2011	Year ended August 31, 2010
Sales revenue	2,734,832	2,136,960
Other revenues from operations	11,465	6,655
Purchases used in production	1,068,870	815,492
Personnel costs	838,548	690,283
External costs	403,774	299,820
Taxes other than income taxes	19,769	19,068
Depreciation and amortization	61,555	58,123
Charges to provisions	14,304	10,514
Changes in inventories of finished goods and work in progress	45,496	(9,055)
Other operating income and expenses	(182)	(542)
Current operating income	384,791	240,718
Non-current operating items	(17,168)	(9,147)
Operating income	367,623	231,571
Income from cash and cash equivalents	(770)	1,523
Gross interest expense	(31,621)	(26,164)
Net interest expense	(32,391)	(24,641)
Other financial income and expenses	(1,994)	(1,105)
Income taxes	95,928	57,150
Net income from ongoing operations	237,310	148,675
Net income from held-for-sale operations	560	(398)
Net income	237,870	148,277
Minority interest	(386)	(196)
Group share	238,256	148,473
Earnings per share (after minority interests)	€4.45	€2.80
Diluted earnings per share (after minority interests)	€4.42	€2.79

# Consolidated statement of cash flows

(in thousands of euros)	Year ended August 31, 2011	Year ended August 31, 2010
Operating activities:		_
Net income	237,310	148,675
Depreciation, amortization and provisions	81,474	56,182
Capital gains	271	1,394
Deferred taxes <sup>(1)</sup>	24,887	26,041
Stock options	2,419	2,442
Cash flow	346,361	234,734
Net change in inventories	(82,835)	21,167
Net change in operating assets	(29,202)	36,974
Net change in liabilities (1)	91,886	35,135
Cash flow generated from ongoing operations	326,210	328,010
Cash flow generated from held-for-sale operations	86	131
Cash flow generated from ongoing and held-for-sale operations	326,296	328,141
Investing activities:		
Acquisitions of non-current assets:		
- intangible assets	(50,483)	(35,077)
- property, plant and equipment	(61,315)	(52,328)
- other	(1,039)	(3,019)
Proceeds from disposals of fixed assets	4,257	1,656
Changes in receivables and payables relating to fixed assets	(368)	610
Acquisitions/disposals of entities, net of cash acquired	(210,421)	(64,901)
Cash flow generated from investments in ongoing operations	(319,369)	(153,059)
Cash flow generated from investments in held-for-sale operations	(97)	(256)
Cash flow generated from investments in ongoing and held-for-sale operations	(319,466)	(153,315)
Financing activities:		
Change in financial debt	133,974	(88,196)
Change in financial instruments	(3,751)	1,598
Changes in equity	15,069	10,827
Treasury stock	(1,599)	(3,528)
Ordinary dividends paid by parent company	(53,393)	(52,877)
Dividends paid to minority interests	-	(103)
Cash flow generated from financing of ongoing operations	90,300	(132,279)
Cash flow generated from financing of held-for-sale operations	(28)	7
Cash flow generated from financing of ongoing and held-for-sale operations	90,272	(132,272)
Currency translation adjustments at beginning of period	(30,442)	15,397
Net change in cash	66,699	58,069
Cash at beginning of period	145,385	87,316
Cash at end of period	212,084	145,385

(1) At August 31, 2010, this amount included the final adjustment of the tax payable on the disposal of shares in Marine on line 'Acquisitions/disposals of entities, net of cash acquired'.