# TRAVEL JOURNAL 1201212013 REPORT



MASTERING THE ELEMENTS

# THE EXPERTISE OF ZODIAC AEROSPACE

## CONTRIBUTING TO COMFORT, LIVING CONDITIONS

ON BOARD AIRCRAFT, ONBOARD SYSTEMS, SAFETY, AND MUCH MORE...



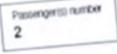
**TO HELP YOU NAVIGATE WHILE DISCOVERING OUR ACTIVITIES,** KEEP THE FLAP OPEN WHILE READING.



# **BOARDING PASS**

#### OPERATED BY **ZODIAC AEROSPACE** ORIGIN: FRANCE (PLAISIR) DESTINATION: ANNUAL REPORT 2012-2013

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VATCH THE FILM

Take a trip with Zodiac Aerospace to discover its businesses and products. Presented for the first time at the 2013 Paris Air Show, this film unveils the diversity of our expertise. You can view it on our website.



# **THE EXPERTISE OF** ZODIAC AEROSPACE

## **AIRCRAFT INTERIORS**







#### **OVERALL DESIGN AND** CABIN LAYOUT

- 01 Exit Door Liners and Door Surround. 02 Cockpit door
- 03 Overhead bins. 04 Structural Composites

#### **CABIN EQUIPMENT SOLUTIONS TO OPTIMIZE ON-BOARD SERVICE** AND PASSENGER COMFORT

13 Gallevs. 14 Monuments: stowages, closet, doghouse. 15 Inserts: ovens, chillers, water boilers, trash compactors. 16 Trollevs.

#### **A COMPLETE AND INNOVATIVE** SEAT OFFERING FOR THE GREATEST **COMFORT AND OPTIMIZATION**

19 First Class passenger seats. 20 Business Class passenger seats. 21 Economy Class passenger seats.

#### AND SYSTEMS ENSURING THE ESSENTIAL FUNCTIONS **OF AIRCRAFT**

- solutions and cockpit lighting overhead panel, keyboards, toggle, push buttons, lamp and LED indicators.

- 27 OBOGS (On Board Oxygen Generating System).
- and masks.
- 29 POCA (Portable Oxygen Cylinder Assembly).
- box.

#### **COMPREHENSIVE SYSTEMS** FOR ENHANCED SAFETY

- 47 Evacuation slides.
- 48 Life jackets, life rafts.
- 49 Escape rope.
- 50 Electrical Interconnect Systems: sleeves, wiring protection, electrical harnesses.

31 Power management

05 Monuments: Closet/

Units)

07 Floor Boards

08 Window Reveals.

06 PSUs (Passenger Service

Wardrobes, Galleys, Lavatories,

9G Bulkheads, Class Dividers.

- and distribution systems.
- 32 Power generators and converters. 33 Electric motors, servo-actuators, position and measuring sensors.
- 34 Fuel gauging systems.
- 35 Fuel inerting systems, OBIGGS (On Board Inert Gas Generating System).
- 36 Pumps, valves, pipes, ducts, nano ball joints for fuel systems.
- 37 Servovalves, valves, hydraulic cylinders.
- 38 Couplings, valves for fluid management.
- 39 Monitoring units, indicators and measurement sensors (flowmetering, density, temperature).
- 40 De-icing systems

51 Cascade.

Arresting gear and nets, EMAS (Engineered Material Arresting System) De-icing systems. Helicopter emergency floatation devices. Tanks.

09 Ceiling Panels. 10 Sidewalls. 11 Baggage Compartment Liners. 12 Insulation. Dotrofit

17 Cargo containers and equipment. 18 Crew rest area.

41 Flight Management System.

- 42 IFE (In-Flight Entertainment) 43 Connectivity and onboard communication systems for IFE: in-flight Internet access, GSM telephony technology.
- 44 Seat actuators.
- 45 Water and waste systems.
- 46 Onboard telemetry (onboard testing)

Ground and airborne telemetry. Ground and air-to-air refueling systems

Ejection seat equipment. Anti-G protective suits. Parachutes, heavy cargo parachutes.

# ZODIAC SERVICES

#### BECAUSE TECHNICAL SUPPORT AND AFTER-SALES SERVICE ARE STRATEGIC ISSUES FOR THE AERONAUTICS INDUSTRY

Zodiac Services provides airlines with the best performance in terms of availability of aircraft components, operational support and solutions

- a full range of after-sale services, including parts, maintenance solutions, retrofitting and technical training;
- a global network of repair services and spare parts distribution, located close to airlines for responsiveness and efficiency in the delivery and maintenance processes.

22 Pilot and crew seats. Airbag cushions.

- **HIGH TECH EQUIPMENT**
- 23 Flight deck control panel
- 24 Cabin lighting.
- 25 External lights.
- 26 Windshield wipers.

28 PSU (Passenger Servicing Units)

**30** Crew and pilot masks, stowage

# WELCOME ABOARD

Zodiac Aerospace, a world leader in aerospace equipment and systems on board commercial, regional and business aircraft as well as helicopters, is also a key player in air safety and teletransmission.

Comfort and life on board aircraft, on-board systems, and safety on the ground and in-flight: its five business Segments – Zodiac Cabin & Structures, Zodiac Galleys & Equipment, Zodiac Seats, Zodiac Aircraft Systems and Zodiac Aerosafety – develop and implement the most advanced solutions for its clients. We stay close to our customers throughout the world by offering a comprehensive range of products and services to meet the complex challenges in aerospace.





04 Message from Olivier Zarrouati06 Stopovers 2012–201312 Development and innovation



- 30 Zodiac Aircraft Systems
- 40 Zodiac Aerosafety
- 50 Zodiac Cabin & Structures
- 58 Zodiac Galleys & Equipment
- 66 Zodiac Seats



76 Human Resources81 Social Initiatives82 Environment





EBSB BILLION in consolidated sales revenue

€564.9 MILLION in current operating income\*

E370.9 MILLION in reported net income

14.5% operational margin\*

E7.13 net earnings per share\*

\* excluding the effect of IFRS 3

# MESSAGE FROM OLIVIER ZARROUATI CHIEF EXECUTIVE OFFICER

# "We face the future with confidence."

ew concepts, designs, technologies, processes, etc.: innovation and development as well as continued internal and external growth are at the heart of our strategy. During the past year, we intensified our Group actions and strengthened, for example, our central structure to provide efficient support for the developments undertaken by our business Segments. We also continued our investments in ongoing as well as future commercial aircraft programs. In this regard, we are especially proud to have contributed to the first flights of the Airbus A350XWB and the Bombardier CSeries, which are continuing their test flights.

The very promising early successes resulting from our ISIS retrofit solution for narrow-body aircraft are also reason for satisfaction. Developed by ZEO, our design studio in California, in cooperation with all Group Segments, ISIS (Innovative Space Interiors Solution) allows airlines to optimize cabin space while maintaining passenger comfort. This is only one example of the numerous projects undertaken by the Group. They all have the same objective: improve aircraft performance, safety and comfort on board.

Innovation is a key element of our strategy to develop or consolidate number one positions in niche markets. We select these markets in our aerospace equipment universe based on their proximity to our current markets, their ability to generate income in after-sales and their barriers to entry to ensure long-term profitability at the level of our investments. Thanks to innovation and acquisitions, Zodiac Aerospace holds the top place on most of its markets. The income generated by these activities today gives us the financial means for research and development for the next generation of equipment and systems and for future acquisitions.

At the same time, Zodiac Aerospace continued to grow during the fiscal year 2012/2013, combining organic and external growth. Our organic growth was at 7.3%, while the consolidation of businesses acquired contributed additional growth of 5.3%. Our total revenues were up 13.1% over the full fiscal year at €3.9 billion, i.e., almost double our aerospace activities six years after the disposal of our Marine business. Thanks to our acquisitions, the deployment of Lean and the involvement of our employees, the growth of our business has been accompanied by an increase in our current operating margin of 14.5%.

Together with our commercial success and the market acceptance of our latest innovations, this strong financial performance allows us, in a buoyant aerospace environment, to face the future with confidence and to reap the benefits of our strong involvement in new programs for civil aircraft, the development of our retrofit offering and the dynamism of the after-sales market.

ZODIAC AEROSPACE • 05

# STOPOVERS

Olivier Zarrouati presents the ISIS cabin to the President of the French Republic.







#### PARIS AIR SHOW: MEETING FOR SUCCESS

The 50<sup>th</sup> Paris Air Show at Le Bourget in June was a success for Zodiac Aerospace. where it showcased its latest innovations and expertise. The booth was always buzzing and, in particular, hosted over a dozen foreign delegations and senior French officials. A life-size model of an A320 unveiled the innovative ISIS cabin concept that aroused a great deal of interest from airlines, the press and the public. R&D projects HYCARUS<sup>1</sup> and OBIGGS<sup>2</sup> were a momentous success as well as the aircraft wing mockup with fuel systems and other products on display: Venus seat, oxygen masks, in-flight entertainment systems,

An Airbus A320 mock-up showcasing ISIS and a wing for presenting the fuel systems.

<sup>1</sup> Fuel cells <sup>2</sup> Inert gas generator etc. The Group's presence at the Air Show was strengthened through its participation at the "Avion des Métiers", where it presented its expertise in electric distribution and seats. The booth and its seat display.

#### Success at the Aircraft Interiors Expo in Hamburg

Red Dot Design Award for the Concert<sup>™</sup> inserts line, Crystal Cabin Award in the Industrial Design and Visionary Concepts category for the ISIS cabin: Zodiac Aerospace was honored at the Expo where it unveiled its Ariès seat, its new modular galleys and new toilets for long-haul aircraft for the first time. Its booth also hosted a "path" presenting its full range of seats.

Oxygen mask: conclusive test for a student.



# STOPOVERS

#### THIRD EDITION OF THE PRIZE JEAN-LOUIS GERONDEAU/ZODIAC AEROSPACE



Olivier Zarrouati awarded the Jean-Louis Gerondeau-Zodiac Aerospace prize created with École Polytechnique in honor of the Group's CEO from 1973 to 2007. This prize supports innovative projects initiated by students, doctoral candidates or recent graduates of the École Polytechnique and encourages company creation. In 2013, three projects were awarded in the health and sport sectors.

**FEETME** aims to create a pressure sensitive shoe sole connected to a smartphone or data acquisition unit. It is easy to use and initially intended for diabetics.

**3MEDICAL** develops innovative stents for the treatment of atherosclerosis, with remote post-operative follow-up.

**SAM** develops a system that adjusts bike gears in all situations without setting adjustments.



#### NAT strengthens the cabin retrofit offering

The acquisition of Northwest Aerospace Technologies strengthened the Group's offering for cabin retrofit by providing strategic competence certification. The company employs 160 people in Everett, Washington.



#### MORE THAN 80 PEOPLE PARTICIPATED IN THE GROUP'S SECOND AIRLINE SYMPOSIUM

There were 31 airline and leasing companies represented. They discussed Zodiac Aerospace Group's commitment to its customers and concluded that its policy of "Stronger together" was its strength. Presentations of products marketed or under development, such as the ISIS cabin, were also on the program.



#### ZODIAC SEATS ON BOARD WITH THE PROGRAM BEST & BEYOND - AIR FRANCE

With its program Best & Beyond, Air France aims to reposition itself as one of the best global companies for its quality of service and passenger comfort. It chose Zodiac Seats and a fully flat reclining seat for its business class that offers passengers direct access and more privacy. It also chose the economy class seat Z300 to equip its long-haul fleet.



#### DELIVERY OF AMERICAN AIRLINES BOEING B777-300 SEATS

As the historic supplier to American Airlines, in particular the Airbus A320 business class seats and Boeing B767 and B757 economy class seats, Zodiac Aerospace began delivering seats for the new Boeing B777-300 for all three classes. The first class seats, the Flagship Suite, were designed exclusively for American Airlines.

#### ON THE TOP STEP

Cathay Pacific, a customer of Zodiac Seats for business class seats for its Airbus A330 and Boeing B777, was named the World's Best Business Class in 2012 following a study by Skytrax of 200 airlines and 18 million passengers.





## SEAT ASSEMBLY PLANT INAUGURATED IN TIANJIN

Located in Tianjin, China, a market with strong growth, the plant will supply Chinese airlines. The first economy class seats were delivered to Hainan Airlines. This assembly line is located alongside Zodiac Services, already present on site for after-sales service to Chinese companies. The inauguration in July 2013 brought together aerospace manufacturers, airline representatives and the Chinese government.





#### **EMERGENCY RAFT** IN SERVICE ON THE A400M

The emergency raft of the Airbus A400M for military transport was qualified in 2012/2013. This military transport aircraft, certified in July 2013, was delivered to the French army in September. Zodiac Aerospace also supplied several systems (fuel gauging and control, power management), as well as monitoring (hydraulic system) and control (oxygen, engine bleed air).

# STOPOVERS



The Zodiac Interconnect team in Loches received the Snecma Award for on-time delivery and quality.

#### AT THE HEART OF CHANGE TOWARDS A MORE ELECTRIC AIRCRAFT

The Zodiac Aerospace Group is the world leader in primary on-board power distribution systems and supplier of the majority of new civil aeronautics programs. It is at the heart of change, moving towards a more electric aircraft. It copilots the CORAC GENOME program with Airbus and supports a partnership with the CEA for fuel cells and batteries. The acquisition of IPS, a specialist in generators and converters, rounds out its electrical system offering in 2013.

#### RAVE<sup>™</sup> TAKES OFF AT LUFTHANSA

The first Lufthansa Airbus A330 retrofitted with the IFE<sup>3</sup> RAVE<sup>™</sup> system went into commercial service on June 13, 2013. In 13 days, the Zodiac Aerospace team installed more than 300 screens and related material and cables. This was implemented under the contract with the company for 69 Boeing B747s and Airbus A330s and A340s.



The installations will continue until 2015.

#### 82 EMASMAX® ARRESTING SYSTEMS IN THE WORLD

Zodiac Aerospace installed 11 EMASMAX<sup>®</sup> arresting systems in 2012/2013 in nine airports in the US, bringing the number of systems installed around the world to 82. EMASMAX<sup>®</sup> is a bed of prefab cellular cement blocks that is placed at the end of a runway and is designed to arrest an aircraft leaving the runway in a controlled manner. The Group is developing a new generation of cement that is faster to manufacture, cheaper to maintain and provides increased arresting ability.



Dedicated to oxygen systems, the American site of Zodiac Aircraft Systems in Lancaster has been revamped according to the Lean Management principles.

- <sup>3</sup> In Flight Entertainement system
- 4 www.sae.org
- <sup>5</sup> Supplier Furnished Equipment



#### ZODIAC SERVICES SUPPORTS THE LAUNCH OF GULFSTREAM G650

In cooperation with Gulfstream Aerospace, Zodiac Services provided all its distribution units the necessary pieces to support G650 operators and developed dedicated capacity at its global repair stations, particularly in Milwaukee in United States and in Singapore.

#### RED DOT DESIGN AWARD 2013 FOR CONCERT™

With an elliptical façade, ovens, coffee and drink machines, water boilers and heaters share a standardized design with the new range of Concert<sup>™</sup> galley inserts. They are quieter, more manageable and even lighter: 75kg less than a classic twinaisle aircraft, which saves fuel.





## THE SAE IN PLAISIR

As a member of the Aerospace Council of the SAE<sup>4</sup>, Zodiac Aerospace hosted a meeting of the Fuel and Inerting committee in Plaisir. Over three days, engineers from various backgrounds (lab testing, aircraft, engines, fuel and inerting systems) worked on drafting or updating design and testing standards.

# 100,000

Hybrite trolleys manufactured during the 2012/2013 fiscal year by the Lamphun plant in Thailand. Performance related to the operational excellence of its teams and to supply optimization.



#### NEARLY 40%

of Airbus A320 that have come off the line in 2012/2013 are equipped with galleys developed by Zodiac Galleys & Equipment, of which two thirds are new models designed as part of the SFE<sup>5</sup> contract.





Larger and more modern, the new equipment repair centers of the Zodiac Aerospace Group in Braintree (UK) will help improve team effectiveness and customer service. The repair offering has been expanded.



#### Innovation is a key driver of competitiveness

for Zodiac Aerospace Group thanks to the advances it provides. It draws on three complementary sources:

- technological developments driven by teams from its different businesses;
- scientific partnerships formed with leading global organizations;
- acquisitions of leading companies in their sector.

This approach nourishes the Group's culture and strengthens its cohesion.

# DEVELOPMENT & INNO-VA-TION A POWERFUL GROWTH DRIVER

"WE CONTINUE OUR DEVELOPMENT WITH THE AIM OF CONSTRUCTING AND CONSOLIDATING THE POSITIONS OF GLOBAL LEADERS IN OUR MARKETS THROUGH A TARGETED ACQUISITIONS POLICY AND THE DEVELOPMENT OF THE LATEST TECHNOLOGIES... OUR AMBITION IS TO BE THE MOST EFFICIENT AND INNOVATIVE IN OUR CUSTOMER SERVICES."



Maurice Pinault Deputy CEO - Strategy & Business Development

<sup>6</sup> In–Flight Entertainment system

"Innovation remains a strong driver of our growth, profitable growth based on a niche strategy aimed at developing global leadership positions in our markets. Our acquisitions can make this happen."

#### A strong position with innovative products

"The acquisition of the Californiabased company IMS, the global leader in decentralized or 'passenger centric' IFE<sup>6</sup> systems, rounds out our SiT business and strengthens our position in the rapidly growing avionics sector. The acquisition of the American company IPS strengthens our position in electrical generation and conversion and enables us to be present in the whole on-board electrical systems, where we already are the global leader for primary distribution systems. NAT, a company based in Seattle, gives us an additional competitive advantage, in particular for the retrofit of cabins. They bring certification competence for innovative cabins that we have developed for narrow-body aircraft. In France, the acquisition of ACC La Jonchère also rounds out our offering. They supply ball joints, an interesting new technology to reduce the mass of high-temperature pipes on aircraft engines. We continue our development approach, internally and externally. with the aim of constructing and consolidating the positions of global leaders in our markets through a targeted acquisitions policy and the development of the latest technologies." 

# THE ZEO DESIGN AND INNOVATION STUDIO

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**ZEO integrates industrial design**, advanced engineering and a prototype studio. Its missions: to create innovative products that respect both cost and weight constraints and certification requirements, to develop markets with innovative solutions. ZEO was recognized with three Crystal Cabin Awards, two in 2012 and the third in 2013 for the Airbus A320 ISIS cabin. They also received a Ped Dot Award received a Red Dot Award.

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#### THE MODULAR Galley

With its latest generation equipment, the modular galley designed with ZEO for the ISIS cabin combines maximum flexibility with space savings: 6,200 configurations are possible on a Boeing B777. A finalist for the Crystal Cabin Award 2013, it integrates optimized lavatories with easy access for people with reduced mobility.





#### SUPPORT AND DEVELOP IDEAS

The Business Development department supports the Group's growth and offers its support to entities with the goal of strengthening customer relationships and enhancing internal synergies and innovation. It includes four structures responsible for:

 relations with manufacturers with a dedicated contact for the seven largest accounts;

- relations with airlines through a global network;
- joint strategic projects with several divisions (airbag, cabin lighting, etc.);
- mergers/acquisitions, an integral part of the Group's DNA.

#### >>> Optimized solutions

"We enhance our offering with optimized solutions, some of which are the result of close collaboration with our Boeing and Airbus manufacturer customers through dedicated teams that bring together representatives from our various divisions. For example, we are developing innovative solutions to further integrate the structural elements of the cabin in order to densify without compromising passenger comfort. This is the case with our latest lavatory and galleys configuration, which is based on new monuments and inserts. Another example: the ISIS interior cabin designed by our ZEO design and innovation studio, awarded three Crystal Cabin Awards and selected by several airlines for the retrofit of their Airbus A320s and Boeing B737s."

#### Innovation through synergies

"Innovation is also what underlies our new organization in five Segments, each one with the most product specificity. Our ambition is to be the most efficient and innovative in our customer services.

We promote internal synergies to develop a common approach and we present ourselves under a single banner on a market that is increasingly concentrated and competitive. Certain support functions (Business Development, security, quality, Lean, HR, etc.) are also shared. We are now working together and using our entrepreneurial spirit for collective success, each according to his or her level. This is a winning approach, as is shown by the selection by Comac of our galleys and lavatories for its C919."





#### THE NEW Ariès Business Class Seat

#### **Positioned laterally and completely** flat in its reclined version, Ariès optimizes cabin

20

in its reclined version, Ariès optimizes cabin occupancy and passenger comfort: direct access to the aisle, increased privacy, new lighting adjustments depending on the incline, more spacious tray table and stowage. The innovation also oversaw the design process with a marketing approach, which brought together all divisions of Zodiac Seats.



**Promoting synergies between units,** the Strategic Projects team of the Business Development department aims to share innovation and the success of Group projects. Nine projects are underway, of which some are already completed.

"OUR MISSION IS TO SUPPORT THE UNITS FOR THE SUCCESS OF INNOVATIVE TRANSVERSAL PROJECTS AND TO CREATE AN ENVIRONMENT FOR INNOVATION."



Peter Detjen Group Vice-President Strategic Projects

<sup>7</sup> Standard aircraft equipment

<sup>8</sup> French Atomic Energy and Alternative Energies Commission

"Nine projects uniting the expertise of several Segments and entities have been undertaken. Zodiac Aircraft Systems and Zodiac Cabin & Structures have developed an innovative cabin lighting that has been adopted by manufacturers and several airlines for the linefit<sup>7</sup> and retrofit. This allows the Group to offer a comprehensive range for cockpit, external and cabin lighting. Zodiac Aerosafety and Zodiac Aircraft Systems are developing an electric and electromechanical de-icing system to reduce fuel consumption. Here are a few other examples: a new seat actuator or an airbag

integrated into the cabin, uniting Zodiac Seats, Zodiac Galleys & Equipment and Zodiac Aircraft Systems."

#### **Expanding territories**

"Uniting teams on common projects give us the critical mass to work on a national and European level. After bringing together a team of eight of its entities to develop with the CEA-EA<sup>8</sup> a fuel cell for aeronautics applications, the Group coordinated the Hycarus project launched in 2013: it brings together seven other partners and receives support from the European Fuel Cells and Hydrogen Joint Technology Initiative."



#### HYLIPS, HYBRID ELECTRIC AND ELECTROMECHANICAL DE-ICING SYSTEM

Within the framework of European R&D for more electric aircraft, Zodiac Aerospace is developing an electrical and electomechanical wing de-icing system that will replace the current engine bleed air and reduce fuel consumption. Tests are conducted on the ground, in icing wind tunnels, on an aircraft wing tip.

#### THE FUEL CELL DEMONSTRATOR

#### Through its partnership with the CEA, Zodiac Aerospace is

**the CEA**, 20diac Aerospace is developing a fuel cell for aeronautic applications. The demonstrator confirmed its expected electrical power performance and testing will continue. In addition, the development of an optimized system for aeronautic applications was begun and mobilizes many competences of the Group. CO<sub>2</sub> emission free, this technology will contribute to limit the carbon footprint of aircraft.

## DEVELOPMENT & INNO-VA-TION BETTER STRUCTURED, MORE EFFICIENT

"THIS YEAR WE ENTERED INTO

STORAGE ANOTHER PRIORITY:

COMPOSITE MATERIALS "

FOR DOCTORAL THESIS ON POWER

ELECTRONICS, OPTICS AND ENERGY

UNIVERSITY PARTNERSHIPS

university partnerships in Europe, 4 in the United States in 2012/2013

More than **50** patent applications in 2012/2013

The Zodiac Scientific & Technical Council promotes innovation, encourages exchanges between units, confirms technical and scientific relationships with universities and external organizations, and creates tools and indicators to encourage innovative growth. It brings together 21 members.

Thierry Rouge-Carrassat Group Chief Technology and Innovation Officer

<sup>9</sup> French Atomic Energy and Alternative Energies Commission

<sup>10</sup> Institute for Aerospace Technology and On-board Systems "If our employees are convinced of the importance of innovation, we still need to improve our efficiency, in collaboration with Human Resources, with the creation of an internal network that brings together over a hundred experts and 25 confirmed senior experts. What remains is the selection of the fellows and senior fellows among them who will be endowed of specific missions in their area of expertise in addition to their operational functions: for example, representing the Group in external bodies, and youth training. We are also structuring an approach to encourage Group management of industrial property through the sharing of best practices."

#### Partnerships to shape the future

"The partnerships promote the discovery of innovations and their industrial implementation. In 2013, the Group partnered with a dozen universities in France, Germany, the Netherlands and the United States to work especially on power electronics and optics. It also works on composite materials and energy management. primarily through its collaboration with the CEA-EA<sup>9</sup> on fuel cells and new generation batteries. We are the founding member of IRT AESE<sup>10</sup> Toulouse, created in 2013 to bring about a global center of excellence for composites and energy management (supercapacitors, new generation batteries, etc.)."

THE G1 GALLEY

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**More improvements** to ergonomics and weight, sleek design: with the G1 galley, the cabins of aircraft of Airbus A320's family are a response to current trends. With a better ability to retrofit in comparison with the previous version, this family of galleys pushes the limits of functional possibilities for airlines even further.

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## DEVELOPMENT & INNO-VA-TION TOWARDS OPERATIONAL EXCELLENCE

#### The evolution of organizations, management styles,

processes and behaviors: the Lean approach contributes to progressive improvement and innovation.

"BASED ON A SHARED STANDARD, WE CAN BRIDGE THE IMPROVEMENT ACTIONS FOR THE GROUP'S STRATEGIC OBJECTIVES AND MEASURE THE IMPACT OF LEAN."



**Carine Vinardi** Group Lean Director

"The Lean Corporate team is in full working order: in America, Europe and Asia it provides support to local management and to the hundreds of Lean relays on the ground. After production, the focus was placed on programs and engineering (development, industrialization, etc.) to gradually cover the entire value chain. We have begun to build the Group's Lean system within the framework of Zodiac Excellence Systems Together.

### A roadmap for all businesses and entities

"In this regard, the deployment of the Hoshin Kanri method was a major breakthrough. Using master plans, it allows all entities (Segments, Divisions and BUs<sup>11</sup>) to adapt it to their level, vision and strategic objectives defined by Olivier Zarrouati in followed, managed and measured action plans, and all using a standard format. Each level develops its own master plan, discussed with upper and lower management, which encourages involvement from everyone.

We also created a shared database for several performance indicators. And it integrates the support functions: quality, security, environment and HR. As a result, a common dashboard with over twenty indicators covering all our industrial activities is available to all entities. Based on a shared standard, we can bridge the improvement actions for the Group's strategic objectives and measure the impact of Lean."

## DEVELOPMENT & INNO-VA-TION INNOVATE TO BETTER SATISFY A CHANGING MARKET

With its new integrated offers, Zodiac Services has adapted itself to a constantly changing market in order to meet customers' needs and to support them in the daily operation of their fleets.

"WITH ITS CAPACITY TO ADAPT AND MEET THE NEW REQUIREMENTS OF MANUFACTURERS AND OPERATORS THROUGH INNOVATION, ZODIAC SERVICES CONTRIBUTES TO 'PRE-SALES' BY SUPPORTING THE DIFFERENT GROUP SEGMENTS."



Christophe Bernardini CEO, Zodiac Services

"The aircraft manufacturers' offering increasingly combines the sale of aircraft and maintenance. Anticipating this change, we created solutions driven by our new Operator Program division, which includes products and their maintenance. With its capacity to adapt and meet the new requirements of manufacturers and operators through innovation, Zodiac Services contributes to 'pre-sales' by supporting the different Group Segments."



#### Closer, more responsive, and more efficient

"We also have, for the supply of spare parts, new computer applications for calculating the needs of airline operators with a twofold objective: to increase our on-time delivery performance and optimize the level of our stocks worldwide. In addition, we are developing a global repair network - with our Braintree center that has been operational since June and new buildings in Dubai beginning at the end of 2014. We have also strengthened our technical support teams for airlines. Not to mention the redesign of our interface with the Group's business Segments to further improve the quality of service and ensure direct feedback from operators of the Group equipment. There are so many initiatives that improve our service for the benefit of our customers."

# 35

#### OBIGGS, THE ON-BOARD INERT GAS GENERATING SYSTEM PROTOTYPE

Developed at the Roche-la-Molière site in France, the On-Board Inert Gas Generating System for fuel tanks uses a polymer membrane gas separation technology to produce inert gas (low in oxygen). The presence of inert gas in the tanks reduces the inflammability of residual gas and reduces the risk of explosion. This increases safety on board. 

# SEG

28 • TRAVEL JOURNAL 2012 • 2013

**Carried by increased air traffic and the increase in commercial aircraft programs**, the five Segments of Zodiac Aerospace have, each in their fields, contributed to the Group's performance in 2012/2013. This performance is based on extensive programs to improve operational efficiency, on strengthening internal synergies and on sustained innovation effort. With one shared objective for all: continue to grow by offering solutions that improve cabin comfort, flight safety and aircraft performance.

# ZODIAC AIRCRAFT SYSTEMS

#### **Every second** 1 piece of Zodiac Aircraft Systems equipment takes off somewhere in the world

Zodiac Aircraft Systems has seven high-tech divisions dedicated to aircraft systems (power distribution, gauging, circulation and inerting of fuel, oxygen, cockpit and external lighting) and to the cabin (lighting, water and waste management and in-flight entertainment systems).

## ZODIAC AIRCRAFT SYSTEMS

This capacitive epoxy fuel

gauge, found in the fuel tanks, guarantees precision and maximum security. Used with numerous programs, it sends a signal proportional to its depth of immersion.

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#### Yannick Assouad ceo, zodiac Aircraft systems

The reliability of our products, the excellence of our teams and our cost competitiveness are recognized by our customers. We maintain this lead by continually optimizing our products and our systems' architectures, which keeps us on the cutting edge of technologies such as electronics, electrical power, fluid mechanics, electromechanics, etc. Innovation is fertile ground for future growth."

#### Technological research: three major lines

"Our research focuses on three major lines. First, a more electric aircraft. World leader in primary electrical power distribution systems, we work with our partners on the diversification of energy sources, in particular fuel cells and batteries, and on electrical supply networks (converters, switching and monitoring). Second line: composite materials. To support their development, we are eliminating electrical fuel tanks wiring (wireless gauges in composite) and inerting them. Finally, we are also innovating in the cabin, with a new range of interior lighting, advanced water and waste management systems and in on-board connectivity (in-flight Internet access and GSM). These innovative systems support our growth and guarantee it. Added to the acquisition of companies with high technological content supplementing or strengthening our expertise and capabilities, during the fiscal year were IMS, IPS and ACC La Jonchère and TriaGnoSys in September 2013."

#### Better serve our customers

"To accompany these technological challenges, we are also strengthening our operational efficiency and competitiveness to better serve our customers. We have streamlined our supplier base and reduced our delivery times. Production is growing in Tunisia, Morocco and Mexico. It must continue."



## ZODIAC AIRCRAFT SYSTEMS

REPORT

## LIGHTING, ESSENTIAL for safety and comfort



## A COMPREHENSIVE RANGE of innovative solutions for the cabin...

Reliable, lightweight, powerful, adaptable (Plug and Play technology), comfortable: our new range of lighting solutions for the cabin (integrating indicator lights, reading lights and other equipment), lavatories and galleys are a significant advance. They use the latest LED technology.

### ... and the cockpit

We supply cockpit lighting and command systems, including ambient lighting, reading lights, control panels, backlit keyboards and other components and equipment. In our Chihuahua plant, one of our operators is carrying out functional testing of an electronics card before integrating it into a flight system management keyboard. This critical component is integrated into a cockpit panel (assembled at our Niort plant), which provides lighted status or warning messages. These messages must be visible day and night, in all lighting conditions; their brightness and color are also controlled. Another element is to reduce pilot fatigue.



## Innovations IN EXTERNAL LIGHTING

In addition to our cabin and cockpit lighting, we also offer comprehensive external lighting solutions. Also based on LED (Light Emitting Diode) or HID (High-Intensity Discharge) technology, they are less sensitive to vibrations, more reliable and require less maintenance than halogen lamps.

## LED: A GOOD CHOICE

Halogen lamps are giving way to a new generation of LED lighting. 10% lighter and up to 100 times more reliable, they require hardly any maintenance throughout the life of the aircraft. For example, we have chosen using it for our latest range of cabin lighting, for the Falcon 5X external lighting system and the new landing headlight of the Airbus A330, which is under development.





## The environment: A BENEFIT TO THE ENVIRONMENT

Substituting LEDs for halogen and fluorescent lamps is a double advantage for the environment: consuming three times less energy and eliminating mercury and phosphorous sources.



## ZODIAC AIRCRAFT SYSTEMS

## **KEY METRICS**

€ 1,101.9 million IN SALES REVENUE

**28.3%** SHARE OF GROUP SALES REVENUE

5,992 EMPLOYEES WORLDWIDE

**14.1%** OPERATIONAL MARGIN<sup>®</sup>

€ 155.1 million CURRENT OPERATING INCOME®

\* Excluding the effect of IFRS 3

#### **7 DIVISIONS**

- ZODIAC ENTERTAINMENT & SEAT TECHNOLOGIES
- ZODIAC WATER & WASTE SYSTEMS
- ZODIAC CABIN & COCKPIT SYSTEMS
- ZODIAC ELECTRICAL SYSTEMS
- ZODIAC CONTROLS
- ZODIAC FLUID MANAGEMENT
- ZODIAC DATA SYSTEMS



#### **PRIMARY LOCATIONS**

- France (Aubervilliers, Auxerre, Besançon, Bretteville-l'Orgueilleuse, Châteaudun, Châtellerault, Compiègne, La Teste, Les Ulis, Montreuil, Niort, Plaisir, Roche-La-Molière, Soignolles-en-Brie).
- **Germany** (Bergish, Hamburg, Wedel, Wessling).
- United States (Alpharetta, GA; Carson, CA; Eatontown, NJ; Lancaster, NY; Redmont, WA).
- Mexico (Chihuahua).
- Tunisia (Soliman).
- Morocco (Rabat, Tiflet).

#### **ACTIVITIES IN 2012 • 2013**

## An enhanced offering

Zodiac Aircraft Systems achieved good growth, carried by its innovative developments, commercial successes, operational efficiency improvement and three strategic acquisitions.

#### **Strengthened positions**

Three strategic acquisitions have strengthened the positions of Zodiac Aircraft Systems. The acquisition of IPS<sup>12</sup>, manufacturer of electric generators and converters. consolidates the Group's leadership in on-board electrical systems, and the acquisition of ACC La Jonchère (now Zodiac Aero Duct Systems) completes its offering for joints and ducts, and the acquisition of IMS, the third largest "Passenger Centric" IFE<sup>13</sup>, accelerates its position on this growing market. Other advancements: reduced

delivery times linked to the streamlining of the supplier base, and the growth of cost-competitive sites, in Morocco for the production of fuel systems and engineering. in Tunisia for electrical systems and actuators, and in Mexico where the Chihuahua plant is increasing its capabilities for cockpit and cabin lighting systems. Commercial activity has remained strong, particularly with the wide range of products from the seven divisions selected for the Falcon 5X. the new business aircraft from Dassault Aviation and the newest products for the E2, the new regional aircraft from Embraer.

- <sup>13</sup> In–Flight Entertainment System
  - <sup>14</sup> Reliable Affordable and Very Easy

<sup>&</sup>lt;sup>12</sup> Innovative Power Solutions

#### **ZODIAC SERVICES**

## A NEW IFE REPAIR CENTER AT ROISSY

On-site maintenance teams for immediate repairs, a global network of repair centers for the Group's IFE equipment: with its daily maintenance solutions, Zodiac Services supports the development of Zodiac Aircraft Systems on the buoyant market. The opening of an IFE equipment maintenance center for Europe at Roissy-Charles-de-Gaulle, in December 2013, rounds out the existing centers in the US. In addition, there are developments in Asia and Australia.



## Entertainment & Seat Technologies

With RAVE<sup>TM 14</sup> and DreamZ, a product that existed before the acquisition of IMS, the Group is growing on the IFE "Passenger Centric" market, making each seat entirely independent. Deliveries of products were made for the entire fleet, new and reconfigured, of Corsair Airbus A330s and Boeing B747s beginning in late 2012. In mid-2013, the first Lufthansa aircraft reconfigured with RAVE™ resumed service. This system offers solid advantages: SD cards for storing data.

replaceable and removable screens during flight, lightweight design, low power consumption, and reduced installation time. The Zodiac Services repair center at Roissy added the maintenance of IFEs for the Group to its capabilities. In addition to the IFE offering, connectivity developments (in-flight Internet access and GSM) are accelerating with the acquisition of Triagnosys. There is also good performance for seat actuators with increased sales to Jamco. Sogerma and Zodiac Seats. manufacturing began in Chihuahua and delivery of new seat lighting systems to Zodiac Seats. •••

42

**The RAVE<sup>TH</sup> system** was selected during the fiscal year by 13 airlines or lessors for 52 aircraft.



The annual meeting with supplier partners is an opportunity to better share the objectives and respective expectations.

## ZODIAC AIRCRAFT SYSTEMS



The new generation of remote terminal units for aircraft, helicopters or drones was selected by Airbus for test flight installation on the A320NEO.

New lavatories, lighter and easier to maintain, are also more reliable because of their flush valve adaptable to existing equipment or "integrated" toilets for corporate jets.

<sup>15</sup> GEstioN OptiMisée de l'Energie [Optimized Energy Management] Without forgetting the OHSAS 18001 health and safety certification at the Auxerre and Aubervilliers sites.

#### Water & Waste Systems

Driven by the ramp-up of the Boeing B787 and the entry into production of the Sukhoi SSJ100, the division has been selected by Embraer (E2 new regional aircraft), Irkut (MC21), Bombardier (Challenger) and Boeing (C5 military). It develops new products: lighter lavatories with more reliable flush valves, improved prevention of scaling and UV treatment systems.

#### **Cabin & Cockpit Systems**

Powerful, lightweight and low-energy, the new line of interior cabin lighting was chosen by Delta Airlines for the renovation of 16 Boeing B757-300s. Chosen by Embraer for the passenger oxygen system for its E2, the division is marketing its new Lavox (lavatories) and Superiox (cabin portable) oxygen systems and delivers its latest generation of EROS Series 40 pilot masks. Also delivery of a new passenger service unit for the Sukhoi SSJ100.

#### **Electrical Systems**

World leader in on-board power distribution, the Group completed its offering in electric generation and conversion with the acquisition of IPS. The business benefited from an upturn in deliveries at Airbus (A320, A380), Boeing (B787), Bombardier (Challenger 300) and Eurocopter (civil helicopters). The primary and secondary electrical distribution system of the Airbus A350XWB was qualified and performed satisfactorily on the first flight in June. Work on electrical



23

**The Touchscreen Multipurposes Control**, a touchscreen control panel with an intuitive interface, can host several cockpit applications: cartography, non-critical command systems, etc.

components, contactors in particular, continues and the contract for the CORAC GENOME<sup>15</sup> project co-managed with Airbus was made known.

#### **Zodiac Controls**

Supplier of many Airbus A350 systems and software, the division began production for the A400M: gauging and fuel control systems, management of electrical functions, monitoring (hydraulic system) and control computers (oxygen, engine bleed air). The division has delivered the first Airbus A320NEO engine interfacing computers and has been selected by Embraer (E2 fuel system) and Irkut (MC21 Cabin Management System). Bombardier's MC21 and Global 7000 fuel and/or inerting systems are in development. Demonstrations began for de-icing systems, ice detection systems,

fuel gauging with fiber optic sensors and modular management of sensors and expenses.

#### **Fluid Management**

The year was marked by the acquisition of ACC La Jonchère (now Zodiac Aero Duct Systems) and by many selections for hydraulic, fuel circulation and fuel tank inerting components: X4 of Eurocopter, Airbus A350-100, Embraer E2 especially. Work on the replacement of anodic oxidation chemical treatments were published.

#### **Data Systems**

Activity and orders are up. Reflected in the contracts for the measurement system from MC21 flight tests and receiving antennas and listening posts on rocket launch bases in Russia, the United States and India. This is in addition to the monitoring and geolocation station in Qatar. The division marketed a new range of on-board encoders and recording equipment for flight tests, improved the receiving systems and developed a new range of telemetry and transmission equipment.

# ZODIAC AEROSAFETY

40 • TRAVEL JOURNAL 2012 • 2013

## **55% of commercial aircraft** equipped with Zodiac Aerosafety evacuation slides

Zodiac Aerosafety designs and manufactures on-board safety systems, emergency rescue systems and equipment protection systems.

## ZODIAC AEROSAFETY





**The Chihuahua plant, a center of industrial excellence for evacuation slides,** exceeded monthly production from 200 slides in 2011 to 450 in 2013. World leader in the sector, the Group manufactures the majority of slides at this plant.

## Gilles Debray ceo, zodiac aerosafety

As a key player in air safety we consistently continue our development, building on our core businesses in equipment and systems, both on-board (evacuation slides, emergency floats, life jackets, parachutes, flexible tanks, de-icing systems, wiring protection, etc.) and on the ground (e.g., emergency arresting systems)."

#### A dynamic of ongoing improvement

"We base our expertise on two strong bases: our historical expertise in the field of technical fabrics and flexible materials and structures, and our experience in integrating aeronautic solutions and equipment on-board and on the ground.

Focusing on global leadership positions, we develop, on all continents, our capabilities and technical, industrial and human resources. This is a two-fold objective: to remain at the forefront of technological innovation in safety solutions and continuously improve our operational performance to provide the most competitive products and services to our customers, aircraft manufacturers, airlines, airport authorities, armed forces, and helicopter operators.

This sustainable continuous improvement approach allows us to proactively support and meet their changing needs. Demonstrated commercial success on a number of recent programs: Airbus A350, Boeing B787, Bell 429 and 525, Bombardier CSeries, COMAC C919, Eurocopter X4, Irkut MC21, and EMAS safety installations at airports. This success is to the credit of the quality of our teams, their commitment and dynamism."





#### REPORT

## FLEXIBLE ELASTOMERS: our historic specialization



### **EXPERT** on anti-crash tanks

We are a "historical" specialist in flexible materials and structures, who design, qualify and manufacture high-tech fabrics to develop our de-icing and fuel systems, flexible tanks for helicopters in particular. Our research departments develop solutions combining strength while reducing weight and size and maximizing capacity. Business software and digital simulation as support tools.

### THE ART of a formula

Industrial rubber is a result of a mix of polymers (natural or synthetic rubber) and additives with clearly defined roles: fillers to strengthen it (kaolin or silica), plasticizing oils, agents for protecting it or necessary for vulcanization, for example. Up to twenty ingredients are carefully measured and weighed by our technicians to obtain the necessary physical and mechanical properties. We have a hundred standard formulas in our catalog.





We impregnate rubber fabrics on a calender made of large cylinders. With 1/10th of a millimeter precision. Our labs submit samples for a series of tests: fabric stretching, traction, watertight resistance, weight controls and friction (wear).



## TANKS:

#### complex equipment...

Manufacturing a fuel tank must, in addition to having a flexible structure, be able to integrate a large number of inserts and components.





## EXTREME ENVIRONMENTS

For the development of helicopter tanks, we use several techniques: self-sealing lining against the impact of projectiles and ammunition, crash resistance, anti-lightning treatment, for example. The NH 90 tanks above are treated by applying an anti-lightning layer of copper.



Final checks of a helicopter tank at a workshop at our Chihuahua plant in Mexico before quality control.



## ZODIAC AEROSAFETY

## **KEY METRICS**

€ 564.0 million IN SALES REVENUE

**14.5%** SHARE OF GROUP SALES REVENUE

4,073 EMPLOYEES WORLDWIDE

**17.4%** OPERATIONAL MARGIN<sup>®</sup>

€ 98.4 million CURRENT OPERATING INCOME

\* Excluding the effect of IFRS 3

#### **5 DIVISIONS**

- ZODIAC EVACUATION SYSTEMS
- ZODIAC ARRESTING SYSTEMS
- ZODIAC INTERCONNECT
- ZODIAC ELASTOMER
- ZODIAC PARACHUTE & PROTECTION



#### **PRIMARY LOCATIONS**

- France (Caudebec-les-Elbeuf, Cognac, Joué-lès-Tours, Loches, Merpins, Plaisir, Saint-Crépin-Ibouvillers).
- United States (Aston, PA; Belmar, NJ; Columbia, MS; Liberty, MS; Logan Township, NJ; Milton, FL; Santa Rosa, CA; South Windsor, CT).
- Canada (Oakville, London).
- Mexico (Chihuahua).
- South Africa (Durban).
- Tunisia (Soliman).

#### **ACTIVITIES IN 2012 • 2013**

## Ongoing and balanced growth

Activity remained strong in both civil and military sectors, with balanced growth between divisions. In a stable environment with an upward trend, they have successfully continued their efforts to improve their operational performance and prepare for future projects.

#### **High-level activity**

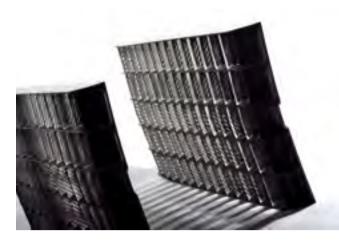
Carried by the delivery rates of manufacturers, commercial aviation activities remained at a high level. Military activities posted solid performance, especially for parachutes and emergency braking and arresting systems. Within this stable and well-oriented context, teams are mobilized on operational excellence based on Lean Management tools: launch of Hoshin Kanri, specifying the Group's objectives with roadmaps by activity. Outcome: on-time deliveries have been substantially improved. A reflection is committed to streamlining the supplier chain and studying

potential partners. Industrial transfer of production units at competitive costs continued: interconnect harnesses and some flexible tanks are well manufactured at Soliman and Chihuahua (production site for evacuation slides, as well), and parachutes in Durban.

#### Some commercial success

Zodiac Aerosafety won two major helicopter programs: one for flexible tanks and emergency floats for the X4 of Eurocopter, the other for emergency floats for the KUH of the Korea KAI. New contracts also in interconnect harnesses with Gulfstream (for AAP wings), Goodrich (for Boeing B787 engine

<sup>16</sup> Combat parachute equipment





#### **ZODIAC SERVICES**

## MAINTENANCE OF EVACUATION SLIDES: TWO MAJOR CONTRACTS IN THE US

In 2013 in the United States, two major airlines entrusted Zodiac Services with repairing their slides. Its OEM label, its capacity to guarantee quicker response times, its competitive prices and its network of centers located around the US were key factors in this success.

nacelles) and Messier–Bugatti– Dowty (for Bombardier G7000/8000 landing gear). Zodiac Aerosafety will also supply to several countries its EPC<sup>16</sup> parachutes and to Space X its braking and recuperation parachute of the Dragon Crew spacecraft.

#### **Supported developments**

Developments rolled out at a good pace at Belmar for slides of the Bombardier CSeries and the Airbus A350, at Cognac for the qualification of the A400M military transport aircraft raft and at Saint-Crépin for cascades for Goodrich nacelles mounted on the Airbus A320NEO aircraft. The teams also continue to work on composite technologies for interconnect harnesses and a new generation material for EMASMAX® arresting systems.



Leader in landing gear harnesses, Zodiac Aerosafety develops new technology solutions: composite backshell, multiplexing, using fiber optics, and integrated management for certain functions of landing gear.



# AIRCRAFT INTERIORS

## ZODIAC CABIN & STRUCTURES

ZODIAC GALLEYS & EQUIPMENT

ZODIAC SEATS **Comprehensive cabin interiors, onboard galleys and inserts, passenger and crew seats:** AIRCRAFT INTERIORS masters all cabin elements and offers solutions that are both integrated, floor-to-floor, and optimized.

## € 2,225.7 million IN SALES REVENUE

**57.2%** SHARE OF GROUP SALES REVENUE

**15,889** EMPLOYEES WORLDWIDE

**14.7%** OPERATIONAL MARGIN\*

€ 327.3 million CURRENT OPERATING INCOME\*

\* Excluding the effect of IFRS 3

# ZODIAC CABIN & STRUCTURES

## More than 80% of regional aircraft equipped with integrated cabin interiors signed Zodiac Cabin & Structures

Zodiac Cabin & Structures designs, certifies and manufactures aircraft interiors and the most innovative composite structures. As the leading independent integrator of aircraft cabins, it offers a full range of products – overhead bins, lavatories, cabin liners, partitions, etc. – and services for equipping and retrofitting cabins. Its ambition is to provide added value for its manufacturer and airline customers, and to provide comfort and safety for passengers.

## ZODIAC CABIN & STRUCTURES



Lavatories of the Airbus A350XWB, first to use the new generation of lavatories.

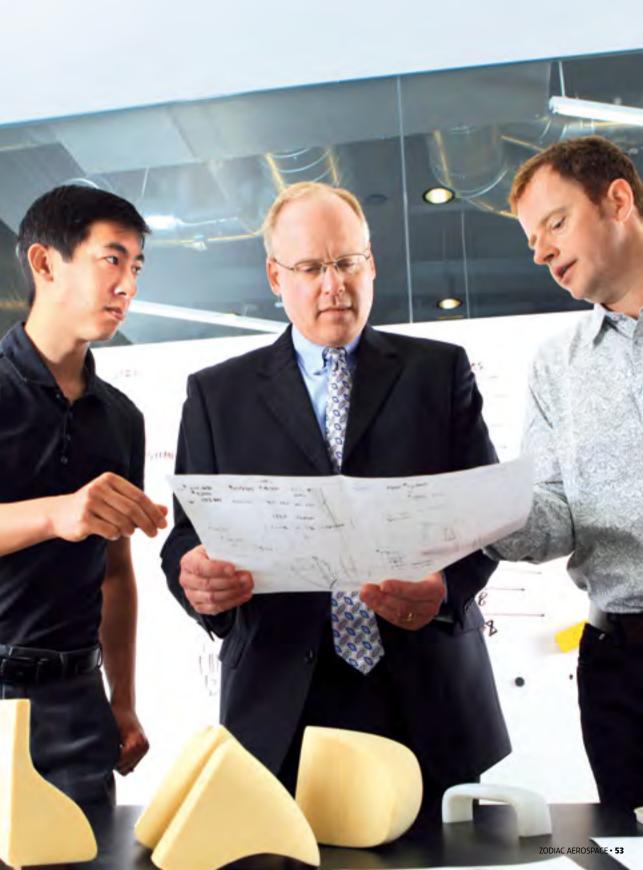
## Stephen Zimmerman ceo, zodiac cabin & structures

For the design of integrated cabin interiors, like our product offerings, our 6,500 employees in Mexico, Brazil, Canada, the United States and Europe work together with the goal of providing innovative, high value-added solutions for our customers, airlines and manufacturers."

## A collaborative approach to optimized solutions

"From visionary concept to mass production, our technical experts and those of other Zodiac Aerospace Group entities develop interior cabin solutions. Their approach integrates the needs of passengers, airlines and crews as well as technical regulatory requirements. Driven by our ZEO design and innovation studio, this approach uses close collaboration with our customers and allows us to offer optimized equipment for passengers, airlines and aircraft as well as innovative products, such as our range of integrated ISIS space-optimizing products.

This is the case for our ISIS modular lavatory system, which sets a new standard for commercial aviation: not only does it add additional seats on aircraft, but it also improves the environment for passengers, an essential advantage for airlines that are retrofitting their cabin interiors. Another example: our ISIS overhead bin system, which offers up to 60% additional stowage space and a more pleasant environment."



## ZODIAC CABIN & STRUCTURES

REPORT

## ISIS, **birth of a star**



### **STEP 1** Room for every good idea: blank page and reflection

To reinvent the interior of a single-aisle aircraft, our ZEO design and innovation studio chose the Airbus A320. With specific objectives: carry-on luggage capacity increased by up to 60%, less weight, a design that is both attractive and modular for manufacturing, simplified installation and maintenance. Open reflection, creativity and speed are hallmarks of this approach. Code name: ISIS, for Innovative Space Interior System.

## STEP 2 Analysis and full-scale testing

Engineers, industrial designers, designers, sales: using successive mock-ups on the fuselage of a downgraded Airbus A320, our multidisciplinary team tests different concepts and conducts analyses and comparative studies.



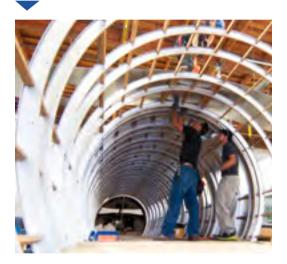


### STEP 3 Prototype test validation

Developed first in 3D, the concepts selected take form via foam prototypes to be used for experiments. Then, through successive iterations, important verification work is necessary to make effective progress. We produced five prototype mock-ups of the integrated ISIS cabin.

## **STEP 4** On the way to industrial implementation

The next step is manufacturing the ISIS mock-up in our production workshops at Huntington Beach, California.



## **STEP 5** The wings of success

Presented at the Aircraft Interiors Expo in Hamburg and at the Paris Air Show, Le Bourget, ISIS received the 2013 Crystal Cabin Award in the Industrial Design and Visionary Concepts category. At the end of September 2013, several airlines in the United States and Europe have selected all or part of their retrofit solutions for their Airbus A320s and Boeing B737s.





## Increased productivity, reduced pollution

We make the ISIS panels with a new pressing process that reduces manufacturing time and eliminates 4–6 hours of sanding that the previous method required. In addition, we used a 100% recyclable composite material that is less polluting and less toxic than conventional resins.

## ZODIAC CABIN & STRUCTURES

## **KEY METRICS**

€ 678.0 million IN SALES REVENUE

17.4% SHARE OF GROUP SALES REVENUE

6,227 EMPLOYEES WORLDWIDE

#### **5 DIVISIONS**

- ZODIAC COMMERCIAL OEM CABIN INTERIORS
- ZODIAC BUSINESS AIRCRAFT CABIN INTERIORS
- ZODIAC AIRLINE CABIN INTERIORS
- ZODIAC ADVANCED COMPOSITES AND ENGINEERED MATERIALS
- ZODIAC NORTHWEST AEROSPACE TECHNOLOGIES
- EZ AIR INTERIORS (50%)



#### **PRIMARY LOCATIONS**

- United States (Bellingham, WA; Everett, WA; Garden Grove, CA; Huntington Beach, CA; La Palma, CA; Marysville, WA; Ontario, CA; Santa Maria, CA; Cypress, CA; Bozeman, MT).
- Brazil (Jacarei, Sao Jose dos Compos).
- Canada (Kirkland Québec).
- Mexico (Tijuana).
- France (Colomiers).
- Tunisia (Soliman).

#### **ACTIVITIES IN 2012 • 2013**

## An edge on innovation and integration

With its highly innovative solutions, Zodiac Cabin & Structures, the leading independent integrator of aircraft cabins, continues to grow. The acquisition of Northwest Aerospace Technologies strengthened the Group's offering for cabin retrofit by providing strategic competence certification.

#### ISIS, the new benchmark for integrated cabins

Zodiac Cabin & Structures has set a new benchmark with ISIS, the new interior cabin for Airbus A320s and Boeing B737s. In 2013, ISIS was awarded the Crystal Cabin Award in the Industrial Design and Visionary Concepts category and the Red Dot Design Award. It offers an innovative and bold design, with many advantages: pivoting bins increase carry-on luggage capacity up to 60%, smart integration and innovative materials that reduce weight and costs, a modular design that simplifies

17 Supplier Furnished Equipment

manufacturing, installation and maintenance. The first ISIS cabin interiors will be delivered in 2014 on the retrofit market. At the same time, development of ISIS modular lavatories continues for the first deliveries in 2014 of 1,200 units.

#### **Growing markets**

Zodiac Cabin & Structures delivered the thousandth Embraer 170/190 integrated cabin interior and, through a joint venture, opened a new production plant in Chihuahua, Mexico with the Brazilian manufacturer. Manufacturing began on the comprehensive and integrated



**Innovative design and increased carry-on luggage capacity** are among the strong points of ISIS, the new cabin interior for the Airbus A320 and the Boeing B737.

interiors for the CSeries, the new regional aircraft from Bombardier, a long-time customer of interiors for CRJs and Dash 8s.

The new generation of lavatories for the SFE<sup>17</sup> 1350, which will equip Airbus A350 XWBs, entered into production for first deliveries in 2014. At the height of the program, a thousand lavatories will be delivered annually to Airbus. Via a joint bid with Zodiac Galleys & Equipment, Zodiac Cabin & Structures scored points on the Chinese market, where Comac ordered the lavatories for its C919. Two major European airlines also chose an AFT Complex ensemble for their Airbus A320s, which integrates two lavatories and a galley into a single unit, freeing up space for additional seats. In addition, in Europe, the US and Asia several major airlines have also chosen these solutions

for the renovation of their lavatories.

## Developments in composite materials

The activity is also developing at a good pace in the field of advanced composite materials, with supply contracts for the Boeing B787 and structures and assemblies of the Boeing/Bell V22. To better meet the growing needs of the market and process components of larger size, Zodiac Cabin & Structures has equipped its Marysville plant in the United States with a new autoclave and efficient equipment for cutting and marking. **An additional autoclave** at the Marysville plant to better respond to growing demand for advanced composite materials.



# ZODIAC GALLEYS & EQUIPMENT

## **58% of commercial aircraft** manufactured in 2012/2013 fitted with galleys by Zodiac Galleys & Equipment

Zodiac Galleys & Equipment designs and supplies for its customers, airlines and manufacturers, innovative cabin equipment solutions that optimize on-board service: onboard galleys, inserts, and trolleys. They also maximize the comfort of passengers in complete safety: monuments and stowage.

## ZODIAC GALLEYS & EQUIPMENT

The G5 Galley: a system pre-equipped with inserts and ready for service

## Jean-Michel Condamin CEO - ZODIAC GALLEYS & EQUIPMENT

## 11

With a competitive offer and competent teams that are geographically close to their customers and partners (manufacturers and airlines), Zodiac Galleys & Equipment offers a complete catalog of products to suit all commercial aircraft. As the global leader in the industry, we listen to our customers and are proud to contribute to added value in everyday life while developing the products of tomorrow."

## The demand for innovation and progress carried further

"Our global innovation approach, which involves our products and processes, is supported by teams that are driven to continually push the limits of their developments. Their priority: design innovative solutions while improving ergonomics, weight and durability of galleys and galley and cargo equipment. Their objective: to be the benchmark partner for aircraft manufacturers and airlines.

For our customers, we design and implement comprehensive solutions that are always better adapted and more operational. With unique opportunities for reconfiguration and customization, we also contribute to increase the value of aircraft re-use. We are also committed, with our colleagues Zodiac Seats, to improving passenger comfort without reducing the functionality and services our customers require.

Design, quality and durability are the strength of our offer. Combined with the continuous improvement of the efficiency and suitability of our products, these advantages are the best guarantors of our leadership."





REPORT

## GALLEYS: an expertise of excellence

## **OPTIMIZATION** rhymes with innovation

Incorporating the latest technological innovations, research of lighter materials and more modular and efficient equipment: optimization of cabin space is a strong point for our R&D and engineering teams. In conjunction with the Zodiac Cabin & Structures teams and Boeing teams, we have developed the G2 Slim galley for the Boeing B737. Smaller than the classic G2, it still offers similar galley space and frees up space in the cabin.





## First, THE PANELS

The manufacture of a galley begins by producing lightweight and strong composite panels and cutting them. We limit the environmental footprint of our plants in Herborn, Germany, Pilsen, Czech Republic and Garden Grove, US, by our choice of materials, reducing our energy consumption, and the continuous improvement of our production processes to reduce waste and CO<sub>2</sub> emissions.



## **LEAN** on the whole line

Manufacturing is organized into three major steps: preparation of the panels, the construction of galley structure and assembly, integration of plastic and metal parts, electrical wiring for coffee makers and ovens, as well as cooling, heating, power and water evacuation systems. All this is done according to the principles of Lean Management and under the supervision of the Lean operations teams.

## UNMATCHED ATTENTION to detail

Each joint, profile, and panel edge is treated with absolute precision and care. Similarly, we manage each electrical installation by bringing unmatched attention to detail. With one shared objective for all our teams: supply beautiful, reliable and durable galleys.





### **QUALITY:** ongoing quality control

We continuously conduct checks to ensure our customers, airlines and manufacturers receive a high level of quality. Once completed, our galleys are tested and checked by our quality controllers. Respecting our prototypes, they are presented to our customers at a First Article Inspection.

## ZODIAC GALLEYS & EQUIPMENT

## **KEY METRICS**

€ 485.6 million IN SALES REVENUE

12.5% SHARE OF GROUP SALES REVENUE

**3,866** EMPLOYEES WORLDWIDE

#### **6 DIVISIONS**

- ZODIAC GALLEYS INSERTS
- ZODIAC PREMIUM GALLEYS
- ZODIAC GALLEYS EUROPE
- ZODIAC GALLEYS USA
- ZODIAC CARGO EQUIPMENT
- ZODIAC MANUFACTURING ASIA



#### **PRIMARY LOCATIONS**

- France (Toulouse).
- Germany (Burg, Hamburg, Herborn).
- The Netherlands (Alkmaar).
- Czech Republic (Pilsen).
- United Kingdom (Croydon).
- United States (Carson, Los Angeles, CA; Garden Grove, CA; Los Angeles, CA; Sterling, VA).
- Thailand (Bangkok, Lamphun).

#### **ACTIVITIES IN 2012 • 2013**

## Keeping up the pace

By leveraging the ramp-up of important programs, particularly in Europe, and systematically implementing Lean Group methods, Zodiac Galleys & Equipment has combined operational performance and business performance.

## **Optimized manufacturing and solutions**

Smooth running of plants, reduced delivery time: actions to streamline manufacturing and guarantee deliveries were successful. Also deployed in engineering, this optimization approach has improved the quality of studies and delivery times.

Innovation was also a part of the program, particularly with the modular galley, a finalist in the Crystal Cabin Awards at the Aircraft Interiors Expo in 2013 in Hamburg. Easy to reconfigure between rotations by airlines, it optimizes cabin space, the number of seats and their arrangement.

#### **Record supplies**

The divisions were able to meet a dual challenge. First the increase in manufacturing for major contracts concluded, particularly with Airbus

<sup>18</sup> Supplier Furnished Equipment

for the A320 galleys (SFE18 contract) and trolleys and containers of the A350, as well as for containers for Air France In 2012/2013, the Group equipped nearly 40% of Airbus A320s, of which two thirds are new models designed as part of the SFE<sup>18</sup> contract. Record deliveries to Airbus were also made for crew rest units for A330s. To support activity growth, the Pilsen plant received a new building, the Helborn plant was expanded and the manufacture of galley components was launched in Tunisia.

Second challenge: development, with the entry into service at Air France of the cargo container Herculight ALF and further development of the range of inserts for the new Bombardier Global 7000/8000 aircraft. The new generation Hybrite trolley is also in development.





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Symphony<sup>™</sup> inserts line
were thought of as an
orchestra. In unison
with the others, each
instrument plays its own
music. In harmony.
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#### **ZODIAC SERVICES**

LONG-TERM PARTNERSHIP FOR THE MAINTENANCE OF CHILLERS

Under the framework of a long-term contract signed with a major Asian airline, Zodiac Services teams will ensure maintenance for 10 years at the time of flight of the entire fleet of chillers of the company. Zodiac Services ensures reduced downtime, maximum availability and access to spare parts.

#### Some commercial success

Many galleys contracts were won, especially with Comac for the C919, Aeroflot, China Eastern and other Chinese companies for their Boeing B737-800s. About inserts, Zodiac Galleys & Equipment has signed a major contract with American Airlines and was chosen by Embraer (KC390) and Gulfstream (new business jets). Concert will debut service with Shandong Airlines and Jet2com. Selected by KLM, Emirates and Oatar Airlines, the Hybrite trolley continues its successful path. In addition, on a volatile and competitive market, 2,300 Herculight AKE containers were sold to Air France.

**Herculight ALF**, the composite material container, empty weighs 33% less than the similar product in aluminium.



# ZODIAC SEATS

## **More than Million** seats by Zodiac Seats in service in air fleets worldwide

Zodiac Seats designs, manufactures and certifies passenger seats for all classes and technical seats (pilot and crew). Installation, retrofit and after-sales support: Zodiac Seats supports its customers with solutions that fit their specific requirements and optimize passenger comfort and space in the cabin by combining innovative design and high-tech equipment.



in Japan, India and China.

## Christian Novella ceo, zodiac seats

## 11

Combining the teams and industrial capacities of Zodiac Aerospace Group in the United States, Europe, Mexico, Tunisia and China, we are developing a global offer that covers all classes of seats. As a global leader, we rely on the quality and competitiveness of our products, the expertise of our teams and innovation to maintain our lead over our competitors."

## A collaborative approach for optimized solutions

"Through a comprehensive approach, we design innovative solutions for our customers, airlines and aircraft manufacturers. These solutions maximize the available space in the cabin and save weight, while optimizing comfort, ergonomics and aesthetics. Based on the different experiences of passengers on board the aircraft – working, rest, entertainment and meals – we are strengthening our synergies between Zodiac Seats units and other Group entities to develop a comprehensive approach and optimize the integration of the seats in the cabin in relation with other equipment such as galleys and systems such as IFEs.

We manage this difficult job in partnership with airlines and aircraft manufacturers. Focused on better meeting their new demands, constantly improving the quality of our products and services, we offer more personalized and strategic solutions that are efficient and competitive."





## REPORT

## THE BEST of the seat

## Qualification BY THE TESTS

To ensure that our seats meet aviation safety standards and technical regulatory requirements – crash resistance, inflammability, quality, ergonomics, etc. – we carry out comprehensive laboratory tests: dynamic certification, cyclic tests, load tests, etc. This is a necessary step to be qualified and certified.

## Innovation: STRENGTH OF DESIGN

Our team of designers develops the products of tomorrow by integrating the expectations of airlines and aircraft manufacturers, technical constraints – safety, comfort, performance, weight and aesthetics – and the cabin environment.





## **ASSEMBLY QUALITY:**

## method and precision

On our assembly lines, which are organized into workstations, each person performs a specific task within a given time. With quality control at each step. This process helps us meet our commitments, in particular our delivery deadlines.





The quality of our products, down to the smallest touches, demonstrates our expertise and high expectations. Polishing the trim on an economy seat armrest.



## SHELLS: multifunctional and lighter

Our plant in Santa Maria, California, manufactures seat shells made of composite materials that are lighter and more resistant. An essential element for passenger comfort, the shell is a structure that integrates key equipment, such as tray tables or video screens, and in addition, differentiates airlines.



## ZODIAC SEATS

## **KEY METRICS**

€1,062.1 million IN SALES REVENUE

27.3% SHARE OF GROUP SALES REVENUE

5,796 EMPLOYEES WORLDWIDE

### **5 DIVISIONS**

- ZODIAC SEATS FRANCE
- ZODIAC SEATS UK
- ZODIAC SEATS US
- ZODIAC SEATS SHELLS
- ZODIAC AIRBAGS



#### **PRIMARY LOCATIONS**

- France (Colomiers, Issoudun, Pusignan, Roissy).
- Germany (Hamburg).
- United Kingdom (Brackley, Camberley, Cwmbran).
- United States (Gainesville, TX; Rancho Cucamonga, CA; Santa Maria, CA; Seattle, WA).
- Mexico (Chihuahua).
- Tunisia (Soliman).
- China (Tianjin)

## **ACTIVITIES IN 2012 • 2013**

## High-flying performance

Zodiac Seats showed strong performance due to its buoyant sales, improved profitability and the completion of the integration of Contour, a specialist in top-of-the-range first class seats, which is now called Zodiac Seats UK.

### **Greater industrial capacities**

To meet the higher production rates of aircraft manufacturers, including Boeing and Airbus. Zodiac Seats is strengthening its industrial capacity. The Tianjin assembly plant in China delivered its first seats to Hainan Airlines: the plants in Tunisia and Mexico, where a new unit for the seat shells opened, have increased production; the plant in Gainesville has been modernized. The Issoudun plant will also be expanded. Another highlight was the acquisition of the engineering office of Threesixty Aerospace, which was dedicated to Virgin Atlantic Airways seats.

### Winning synergies

The entities mobilized to improve performance and innovation. They also strengthened their synergies to create the Ariès business class seat and created global working groups to promote best practices in supply and

<sup>19</sup> In Flight Entertainment

engineering. Synergies were also improved with other Group entities, such as ZEO or Zodiac Aircraft Systems, to develop seats integrating IFE<sup>19</sup> systems, such as the 5751 and Auralite designed for the retrofit market. They also strengthen their collaborations with aircraft manufacturers and airlines for example, to optimize the location of the seats on board or better integrate the toilets, especially in the Airbus A350 XWB and the Boeing B777.

#### New products, new successes

New economy class seats brought commercial success: the Z100 selected by Scoot for its Boeing B787s and the Z300 selected by Air France for the retrofit of its Boeing B777s, by TAM and Finnair for their Airbus A350s and also by Singapore Airlines for its Airbus A350s and Boeing B777s. Qualified on the Boeing B737 and Airbus A320, Dragonfly made inroads into several Asian

## **ZODIAC SERVICES**

## GLOBAL SUPPORT FOR THE GROUP'S TECHNICAL SEATS

Zodiac Services provides worldwide revision of technical seats (pilot and crew) manufactured by Zodiac Seats for both commercial aircraft and fleets of business jets; for example, Dassault's Falcon is experiencing strong growth in Asia. Zodiac Services has expanded its certifications to Chinese Civil Aviation.



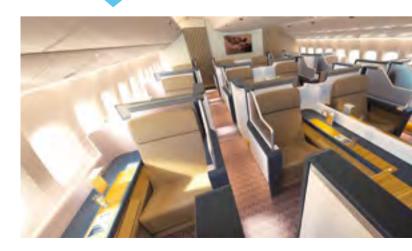
companies. Business class seats were successful: the Auralite for Air China (Airbus A330) and the latest version of Cirrus for Finnair (Airbus A350), Transaero (Airbus A380) and Vietnam Airlines (Boeing B787). Developments continue with the CSeries from Bombardier and the MRJ from Mitsubishi, as well as for pilot seats: C919 for Comac, MC21 for Irkut, Falcon 5X for Dassault, Bell helicopters and Eurocopter.

Like the seat, **the reading light** developed by Zodiac Seats' industrial designers is important to passenger comfort on-board.

The Venus first class seat is changing and will take flight

onboard the aircraft of several Chinese companies.





# 

## The excellence and commitment of its employees

are the greatest strength of Zodiac Aerospace Group. To maintain the highest level, it gives priority to the development of skills as well as health and safety at work. In accordance with the Environment and Risk Management Charter signed by the Chief Executive Officer, Zodiac Aerospace is also stepping up its actions to limit its environmental footprint and is consolidating its industrial risk management policy.



# HUMAN RESOURCES

The most important mission of the Human Resources department is to ensure that each Group employee has a personally enriching career and is useful to the community. Recruiting, skill development, work organization, health and safety, integration of new team and synergies: Human Resources supports all business projects. "MORE DIVERSIFIED, MORE OPEN AND MORE INTERNATIONAL CAREER PATHS, STRONGER SYNERGIES BETWEEN BUSINESSES, COUNTRIES AND TEAMS: THE ZODIAC AEROSPACE GROUP GROWS WHILE REMAINING ROOTED IN HUMILITY, REALISM, ENTREPRENEURIAL SPIRIT AND RESPECT VALUES. TO JOIN THE TEAM IS TO CHOOSE TO BE AN AGENT OF CHANGE. CLOSE TO THE GROUND, THE HUMAN RESOURCES TEAMS PARTICIPATE IN THIS MOVEMENT AND BRING THEIR SUPPORT FOR THE DEVELOPMENT OF OPERATIONAL STRATEGIES."



**Romaric Chabert** Group Human Resources Development Director

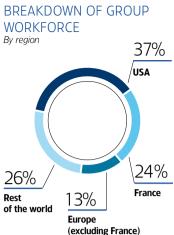
#### An ambitious recruiting policy

Maintained at a high level, recruiting supports the development of the Group worldwide and in all its businesses. 4,461 employees joined Zodiac Aerospace in 2012/2013, of which more than half were in Tunisia, Thailand and Mexico. In addition, 600 people were integrated via acquisitions during the fiscal year. At August 31, 2013, 76% of employees worked outside of France and 63% outside of Europe (France included).

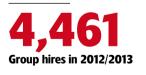
To attract talent, the Group strengthened its relationships with top graduate schools such as the École Polytechnique, the École Centrale, ISAE-Supaero, Ensam and Supélec in France and organized meetings with recent graduates or students, especially at events such as the Paris Air Show, Le Bourget in June 2013. It also encourages participation in VIE, the French International Internship Program, and hosts interns, primarily in the United States: 70% will be recruited afterwards.

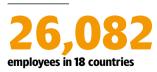
A renewed communication carries this dynamic. In 2013, the Group's website was enhanced with two sections: the first section is a collection of employee testimonies from different businesses, the second shows global employment offers (fixed-term or permanent contract, work-study and internship) with detailed descriptions. The employment offers section also receives unsolicited applications. From January to September 2013. 28,000 people responded to employment offers or submitted unsolicited applications. Nearly 600 employment offers have been filled. The Group also strengthened its presence on social networks.





45 trades to discover, 15,000 job posts to fill: during the Paris Air Show. Le Bourget in June. the "Avion des Métiers<sup>20</sup>" at the GIFAS Job and Training Fair was the opportunity for Zodiac Aerospace to highlight the diversity in aviation careers and to share it with a large audience of mostly young people. At two booths, the Group presented careers related to seats and electrical distribution: products, data sheets (skills, qualities, missions, training and changes), video screenings, as well as talks given by employees and an HR representative.





20 "Careers Plane"

#### **Mobility, source of individual** and collective value

With tools like the Group Mobility Charter, developed by the Human Resources departments of several countries, Zodiac Aerospace encourages its employees to play an active role in the development of their careers and performance. Professional and geographical mobility also helps to strengthen the synergies of the Group and is a source of personal enrichment. Open in all countries since 2013. the Group Mobility intranet offers a growing number of opportunities to Group employees and has filled 25% of internal offers. It was enhanced in 2013 with new tools such as the ability to create email alerts or choose certain criteria (region, trade, etc.) and keywords.

#### Training, a performance lever

To be able to meet expectations and needs, the Group invests in training its employees. Employees receive, on average, 3 days of training per year.

Mainly offered on a local level, training takes many forms: specialized training sessions, e-learning, and distance education. At the Group level, the focus continues to be on operational excellence and on the Lean strategy, as well as on the supply chain, on which all managers were trained. In addition, for 4,000 employees, e-learning on ethics and preventing corruption is in development, as well as a reflection on management and leadership. Human Resources department supports the Technology and Innovation department for the creation of a network that brings together over a hundred experts from the Group and 25 leading senior experts. Objectives: to better develop and promote science and technology careers, encourage excellence and sharing.

#### **Commitment to gender equality**

Considering the diversity as a performance lever, Zodiac Aerospace intends to advance the position of women in technical professions and decision-making positions. In France, several commitments have been made. Management's performance evaluation now includes indicators for the share of women being recruited and promotions to management positions. In addition, several measures are designed to ensure that maternity or parental leave

## BREAKDOWN OF GROUP WORKFORCE by occupational category 73% Clerical staff, technicians, supervisory staff and workers 27% Management and engineers

## BUSINESS ETHICS: A STRONGER STRUCTURE

Operating in 18 countries, Zodiac Aerospace is pursuing a strategy of responsible growth in accordance with international, national and local laws, as well as ethical principles of integrity, honesty, fairness and protection that guide its strategy, work methods and relationship with its stakeholders. Largely inspired by the values of humility, realism, an entrepreneurial spirit and respect, which shape the Group's culture, these principles apply to all employees. Presented in our Ethics Code, these principles have provisions with regard to the fight against corruption and the prevention of conflicts of interests. These provisions were strengthened in 2013 and will be completed in 2014 with an e-learning training program on ethics and business illustrated by actual situations. A charter for management is also in development.

**1,000** accident-free days with work stoppage for the Zodiac Galleys & Equipment plant in Pilsen. Czech Republic.

does not hinder career development: training possibilities, systematic interviews before leaving and on returning from leave, specific budget for individual increases and remote working solutions. The Group is as well committed to encouraging the development of internal networks of women.

In France, discussions with the social partners were also at a very high level, especially in the

organization of a single system of health and protection insurance, with a better cost/benefit balance.

## Engaged and satisfied employees

During the summer of 2013, all employees of Zodiac Aerospace worldwide were consulted via an internal poll conducted by the Ipsos research firm. The particularly high response rate (77%) reflects the strong commitment of the employees. 83% are proud to work for the Group and 66% feel positively about their quality of life at work. The key expectations are on communication and training. After deeper analysis of the results, progress initiatives will be rolled out in 2014.



## Mobilization for safety at the workplace

The Group gives top priority to workplace safety and aims to reduce accident risks to zero. For all entities, it encourages local initiatives to improve workplace health and safety. This is the case, for example, for the cutting system, developed by a Zodiac Aerosafety multidisciplinary team in Belmar in the US, which greatly reduces the risk of burns and cuts when cutting very small pieces.

Worldwide, priority given to safety and risk prevention supports stronger communication of "near accidents", to make employees aware of their role in safety matters and to reduce the probability of a serious accident. In Thailand, with the program "Don't walk by...Act Now", Zodiac Galleys & Equipment employees have been trained to identify "near accidents" via a system of colored cards, to report them easily to the Health and Safety Environment department for analysis and action. "Near accidents" and their displays are presented during daily meetings in workshops. Two other entities -Zodiac Services in Atlanta in the US and Zodiac Aerosafetv in Caudebec-les-Elbeuf in France have opted for an online feedback system while the entity Zodiac Aircraft Systems based in Lancaster in the US trained all employees in "safety behaviors" and then challenge them to report two events each month that seemed to them "abnormal" for safety. Many other initiatives are being taken to prevent dangerous situations, in particular the organization of safety issues during the daily or weekly meetings.

Prevention of potentially dangerous situations is also improved by sharing of information and feedback between the entities, in particular through the development of an internal document on accidents ("near accidents", first aid or accidents). Sharing experiences and best practices are also ensured by the French and North American Safety Committees, which examine Group directives and standards and underscore certain specific regulatory aspects.

Detailed information on commitments for Human Resources can be found in the section "Corporate Social Responsibility" on page 28 of the 2012/2013 Annual Report.

## SOCIAL INITIATIVES

In the countries in which it operates, Zodiac Aerospace takes part in sustainable development initiatives that promote health, education and innovation. Long-term projects.

#### **Group commitments**

The Group continues to provide financial and material support to the Petits Princes association and relies on its global aeronautics network to assist in making the "dreams" of seriously ill children come true. Since 2012, it has also provided equipment to the ORA<sup>21</sup> association and its "Wings for Science" project to make a small airplane available to scientific research laboratories and to encourage young people's interest in science. After a year of missions around the world, this small airplane landed at the 2013 Paris Air Show, Le Bourget. The Group also supports initiatives that promote entrepreneurial spirit and innovation. This is the reason behind its commitment with the École Polytechnique for the Jean-Louis Gerondeau-Zodiac Aerospace prize, which was awarded for the third time in 2013

## Initiatives and entities closer to the ground

True to its entrepreneurial spirit, the Group encourages local initiatives and gives its entities autonomy in choosing their partnership initiatives and philanthropic actions. The examples

<sup>21</sup> Observe, Record, Analyze

<sup>22</sup> World Health Organization

here cover diverse fields: support in Mexico for the initiative "See better to learn better" and the donation of glasses for children, or in the United States, support for an association to fight breast cancer and for a branch of the Red Cross. Locally run, employees are active in organizing raffles, group buffets, garage sales and sports tournaments.





In 2013, two Group entities donated galley inserts and oxygen equipment to ORBIS – devoted to blindness prevention in developing countries, where according to the WHO<sup>22</sup> 90% of the 285 million visually impaired people live. Aviation has always played an important role in humanitarian missions. Since 1994, ORBIS has operated an ophthalmological hospital on board a DC10. On board: a medical team that teaches the latest surgical techniques to ophthalmologists in the poorest countries and operates on patients, as well as modules that provide drinking water, electricity and purified oxygen. The aircraft includes a classroom and an operating room connected by TV, a room with tools for training local doctors, and a recovery room. Zodiac Aerospace equipment is intended for the MD10, which will replace the DC10 in 2014.





# ENVIRONMENT

The Group undertakes to limit its environmental footprint via its Environment and Risk Charter. This commitment, shared by all units, prioritizes lowering CO<sub>2</sub> emissions and substituting dangerous chemical products.

## A collective challenge

A major issue that is addressed in the Environment and Risks Charter, which is lowering greenhouse gas emissions, involves an annual 1% reduction in energy consumed by buildings and by production processes.

## Energy: consume better, consume less

In most buildings, the insulation, equipment insulation and heat recovery, compressors for example, contribute to better energy efficiency and decrease emissions. As for new buildings, such as the Zodiac Aircraft Systems offices in Montreuil or Zodiac Cabin & Structures plants in Cypress, California and Montreal, Canada, they integrate solutions to consume less energy and emit less  $CO_2$  in their initial designs: increased insulation. natural lighting, high-efficiency ventilation systems, etc. Energy efficient equipment is also important. The Zodiac Cabin & Structures plant in Huntington Beach is developing, in partnership with its electricity suppliers, three projects based on an energy management system to reduce energy use, especially during busy periods, as well as for more efficient compressors and pump motors. Objective: save more than 270 MWh per year, which is 9% of energy use at the site, and reduce energy bills.



**Increased insulation, natural lighting and high-efficiency ventilation systems:** the new Zodiac Cabin & Structures building in Cypress, California, is designed to integrate more simple energy solutions and emit less CO<sub>2</sub>.

Designed in compliance with the high environmental quality standards known as HQE

(Haute Qualité Environnementale), the Zodiac Aircraft Systems building in Montreuil opened its doors in July 2013.







**Carbon and Nomex**<sup>®</sup> **honeycomb** used for the lay-up of composite pieces to strengthen their resistance and ensure minimum weight. Outcome: the weight of the aircraft, fuel use and CO<sub>2</sub> emissions are reduced.

With its thermal oxidizer, the Caudebec plant captures 99% of VOCs<sup>22</sup> discharged by the textile spreaders and incinerates them.

<sup>22</sup> Volatile organic compounds

- <sup>23</sup> Scope 1 of the GHG (Greenhouse Gas) Protocol: direct emissions from stationary and mobile sources, held or owned by the company
- <sup>24</sup> Scope 2 of the GHG Protocol: emissions related to purchased electricity. Scope 3 of the GHG Protocol: all other emissions produced indirectly by the activities or the exercise of powers of the company and which are not recorded in scopes 1 and 2

### 

## Initial assessment of greenhouse gas emissions

In 2012, Zodiac Aerospace completed the first assessment of direct<sup>23</sup> and indirect<sup>24</sup> greenhouse gas emissions of the Group, and has published the results in France for companies with more than 500 employees in accordance with the Grenelle de l'Environnement. Objectives: for each activity, identify the major contributors to greenhouse gas emissions and the levers to reduce emissions, define the actions and expected impacts, calculate the real gains observed. Each company establishes actions plan, focusing in particular on the optimization of heating, lighting, offices and processes, to reduce greenhouse gas emissions related to scopes 1 and 2, which represent 110,000 tons of  $CO_2$  for the Group. At the same time, a methodology was defined to account for

emissions of scope 3: 40% of Group sites have carried out this complex exercise that provides an initial mapping of emission positions.

#### Initiatives to reduce industrial waste

Regularly inspected, industrial atmospheric waste from plants is channeled and treated, if necessary (filtering, washing, etc.). In accordance with the permits issued by the authorities, they are not considered by the authorities to be a risk to the environment However, initiatives are underway to: replace solvents with detergents, less volatile solvents or water-based processes, and limit diffuse emissions. In France, the Caudebec plant is equipped with a thermal oxidizer that captures 99% of VOCs<sup>22</sup> discharged by the textile



**100% recyclable, less polluting and less toxic** than classical resins, this composite material contributes to the performance of the ISIS cabin solution.

spreader and incinerates them. Furthermore, in accordance with regulatory thresholds, industrial wastewater, mainly from surface treatment, is treated and their polluted effluent is collected by the sites or approved specialists. The effort is focused on removing the need to consume open-circuit cooling water and on a decrease of sanitary uses.

## Mobilization on dangerous chemical products

The Group continues its effort to substitute dangerous materials in order to reduce exposure to workers, limit the environmental footprint of their products, make them more sustainable and reduce the risks of obsolescence. All new chemical products entering into production are validated by the Environment/ Safety officers and alternative measures result in a guarterly report given to General Management. Undertaken in Europe in 2009, this initiative is now rolled out for the rest of the Group.

At the Group level, priority is given to research solutions for finding a substitution for hexavalent chromium in surface treatments.

## MANAGEMENT **of Industrial Risks**

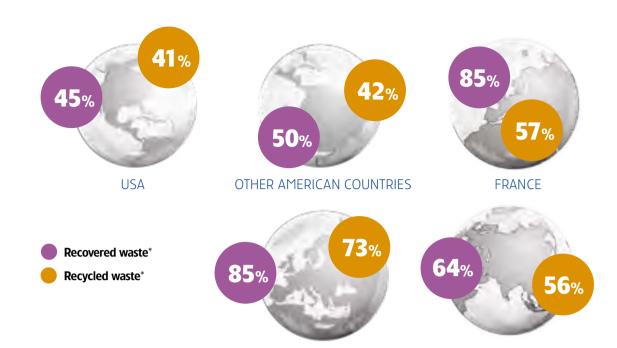
The industrial risk management policy contributes to the sustainability of the Group. In 2008, this policy established a risk grid to consolidate the preventive and protective measures in place and prioritize actions at certain sites. This grid relies on inspection reports from engineers employed by the insurer and specializing in risk management and contributes to improving the protection of sites against fire and natural disasters; it also helps with the deployment of a business continuity plan at all the vulnerable sites. In addition, the Environment and Risk Charter defines several priority lines of action. For chemical products or substances of concern, the accent is placed on continued integration of the requirements set out in the **REACH** regulation, the development of substitution programs and the prevention of accidental pollution.

This approach requires a closer cooperation between engineering offices and technical departments. Two working groups were created for hexavalent chromium: one dedicated to the cabin and cargo hold, the other to external equipment (braking systems and de–icing, for example) and fuel (tanks).

#### Less waste

In its charter, the Group made the commitment to reduce the

volume of waste, to recover at least 80% of it and recycle at least 45%. During the fiscal year, the amount of waste produced per hour remained stable, 60% of waste was recovered, primarily for energy production via incineration, and 49% was recycled. Subject to special treatment, hazardous waste decreases with the development of cleaner industrial processes.



\* 76 sites, 95% of employees

**34** production sites were ISO 14001 certified at the end of September 2013



Recyclable materials at 70%, reduction of plastic waste, weight reduced by 3 kg: the latest version of the Cirrus seat is eco-friendly.

## OTHER EUROPEAN COUNTRIES

## **The Group standard** for eco-design

From the very design of its products, Zodiac Aerospace takes into account their environmental impact over their entire life cycle: manufacturing, transport, use and recycling. Zodiac Seats chose 70% recyclable materials for its Cirrus seat produced in Issoudun, France. Reconfigured in 2013, the weight of the seat was reduced by 3 kg and emissions were reduced by at least 1.5 ton of CO<sub>2</sub> equivalent per seat. In addition, the use of plastic injection molding (instead of plastic thermoforming, as before) reduced plastic waste by around 1.5 kg per seat. There are also decreased CO<sub>2</sub> emissions related to deliveries for Skylounge: reduced package size optimizes truck loading and decreases CO<sub>2</sub> emissions by 60% related to the transport of seats to Hamburg.

EIME life cycle and eco-design analysis software was rolled out: this software will facilitate the development of a Group standard **REST OF THE WORLD** 

and a baseline for best practices. The design and innovation teams already draw on a Group framework and an awareness module is integrated into their training.

### Teams and employees engaged on the ground

Zodiac Aerospace deploys on its sites environmental management systems that meet the ISO 14001 standard or, for already certified sites, to continue to make further progress. Action progress is monitored through reporting and scorecards covering the entire Group. Cross audits between sites with ISO 14001 and OHSAS 18001 certification contribute to the continued improvement of management systems. In addition, training with four modules was organized in 2013 for all auditors. Carried out under the aegis of a network of environmental managers, these actions are accompanied by a strong mobilization on the ground. In the United States,

#### Zodiac Equipments Tunisie

is set to obtain ISO 14001 certification in 2014 and, as part of a twinning project between Tunisia, Austria, France and Sweden, hosted a Tunisian-European team that came to assess chemical risks related to its activities. In addition, the Tunisian public authorities singled out the site for an award for its environmental management of waste and chemical products.





2.500 Zodiac Cabin & Structures employees participated in the exhibition organized by the department of Environment, Health & Safety for a day of awareness for the preservation of the environment, safety and health practices. The program included: interactive demonstrations on the impact of water pollution, simulations of "near accidents", as well as professional advice on healthy living. In Auxerre, France, Zodiac Aircraft Systems employees participated in the second edition of the "Going to work without my car" challenge and an awareness campaign on alternative modes of transportation organized by the municipality.

## The strength of our engagements

Zodiac Aerospace is involved in several committees and working bodies to dialogue with its counterparts, share lessons learned and best practices and formulate opinions on future regulations. It assists the French Aerospace Industries Association. as well as GITAS in Tunisia, in their work on the European REACH regulations (chemical products) and the drafting of professional guidelines, especially for creating a greenhouse gas emissions balance statement and eco-design. It participates in CORAC, Council for Civil Aeronautics Research. which brings together French

players in the air transport, and in the demonstration platform **GENOME** (Optimized Energy Management - GEstioN OptiMisée *de l'Energie*). It is also a founding member of the IAEG (International Aerospace Environmental Group). The IAEG develops common environmental standards for the international aviation industry, and is associated with the European technology initiative Clean Sky, which aims to reduce the environmental impact of civil aviation and develop the engines. systems and aircraft of the future.

Detailed information on commitments for the Environment can be found in the section "Corporate Social Responsibility" on page 31 of the 2012/2013 Annual Report.

# 

## Zodiac Aerospace Group bases its growth on its solid operating performance

and its rigorous financial management.

## **MANAGEMENT** TEAM

**True to our Group's fundamental values,** its senior managers have a preference for quick decision-making processes and staying in close proximity to their teams which favor responsiveness, performance, an international outlook and transparency.



## THE EXECUTIVE BOARD AND EXECUTIVE COMMITTEE

The Executive Board and the Executive Committee meet every two months to define and review the Group's major strategic directions and projects in terms of its portfolio of activities, investments and mergers and acquisitions. They monitor the objectives and operational performance of each of the Group's business Segments.

## **EXECUTIVE COMMITTEE**

Chaired by Olivier Zarrouati, the Executive Committee brings together the Group's 10 key functional and operating executives.

**OLIVIER ZARROUATI**\* (1) Chairman of the Executive Board, Chief Executive Officer

MAURICE PINAULT\* (2) Member of the Executive Board, Deputy CEO, Strategy & Business Development

JEAN-JACQUES JÉGOU (3) Executive Vice-President, Administration and Finance

YANNICK ASSOUAD (4) CEO, Zodiac Aircraft Systems Segment

**CHRISTOPHE BERNARDINI** (5) *CEO, Zodiac Services* 

JEAN-MICHEL CONDAMIN (6) CEO, Zodiac Galleys & Equipment Segment

GILLES DEBRAY (7) CEO, Zodiac AeroSafety Segment

**CHRISTIAN NOVELLA** (8) *CEO, Zodiac Seats Segment* 

**STEPHEN ZIMMERMAN** (9) CEO, Zodiac Cabin & Structures Segment

ADRI RUITER (10) Executive Vice-President, Business Development – Airlines

PIERRE-ANTONY VASTRA (11) Executive Vice-President, Communication and Investor Relations

The operation of the Executive Committee, the Supervisory Board and its three Committees is detailed in the "Governance" Section on page 7 of the 2012/2013 Annual Report.

\* Member of the Executive Board

## SUPERVISORY BOARD

The Supervisory Board supervises the proper operation of the Group and reports to the shareholders. It appoints the Chairman and members of the Executive Board and exercises control over the Group's management and administration. In compliance with official guidelines on corporate governance, in 1995 the Board formed, at the recommendation of its Chairman, three special committees: the Audit Committee, the Remuneration Committee and the Appointments Committee.



**DIDIER DOMANGE** (12) Chairman of the Supervisory Board

LOUIS DESANGES Vice-Chairman

**MARC ASSA\*** 

#### ÉLISABETH DOMANGE

FFP INVEST\* represented by Robert Peugeot

**VINCENT GERONDEAU\*** 

LAURE HAUSEUX\*

**GILBERTE LOMBARD\*** 

#### **EDMOND MARCHEGAY\***

#### **ROBERT MARÉCHAL**

\* Qualified by the Selection Committee of September 24, 2013, as an independent member according to the criteria defined in the French AFEP/MEDEF Code.

## ANOTHER YEAR **OF GROWTH**

The Zodiac Aerospace Group again posted an increase in sales revenue and in its results. Dynamic growth with contributions from its five business Segments.





€ 564.9 million in current operating income\*

€ 7.13

net earnings per share\*





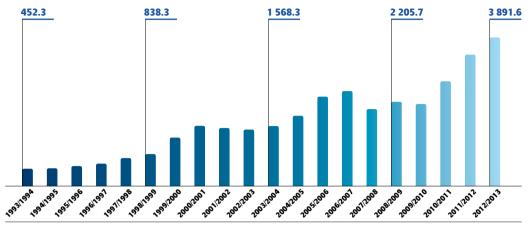
Jean-Jacques Jégou Executive Vice-President, Administration and Finance

#### The pursuit of a solid model

"Growth of 13.1 % in our sales revenue, 16% in our current operating income and 16.3% in our net income attributable to equity holders of the parent: the 2012/2013 fiscal year highlights the relevance of our development model and reinforces our resolve to perpetuate.

A review of the progress made since our IPO in February 1983 shows that in 30 years we have increased our current operating income more than 45 times, and net income more than 85 times, while keeping control of our ratio of net debt to equity and net debt to EBITDA."

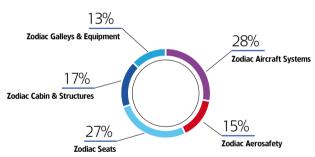
### CHANGE IN CONSOLIDATED SALES REVENUES (IN €MILLIONS)



Disposal of the Marine division in 2007/2008

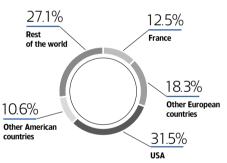
## BREAKDOWN OF CONSOLIDATED

by business Segment (in %)



## BREAKDOWN OF CONSOLIDATED SALES REVENUES

by region (in %)



## Operational performance supported by rigorous financial management

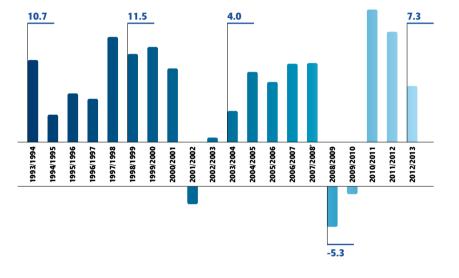
"In addition to the operational performance of our five business Segments in 2012/2013, we also had rigorous management and solid control of our financial expenses, which decreased from €33.2 million to €28.1 million. We also reduced our net debt to equity ratio to 38.5% (42% end of August 2012), and net debt to EBITDA to 1.26 against 1.45 at the end of August 2012. At

year-end, net debt stood at €843.8 million. And our operating cash flow was €509 million, a 19.2% improvement over the end of last year.

We also rigorously monitor our need for working capital, which slightly increased to 31.7% of sales revenue (29.4% at the end of August) resulting essentially from shortening the period for payment of some of our suppliers.

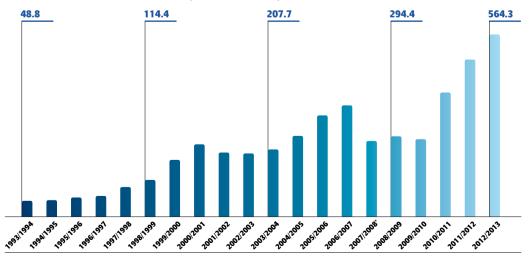
All of these factors have enabled us to fund investments for the development of new programs, Airbus A350XWB in particular, and for our acquisitions, which required €160 million. Another major event for the fiscal year: we have strengthened our funding structure, extended the maturity of our debt and diversified our sources of funding via a German Schuldschein (€535 million) and a private placement in France (€125 million). This new resource allows us to pursue our strategy of internal and external growth."

## ANOTHER YEAR **OF GROWTH**

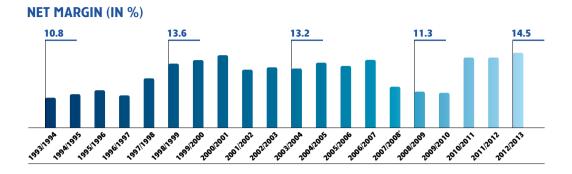


## CONSOLIDATED SALES REVENUE ORGANIC GROWTH RATE (IN %)

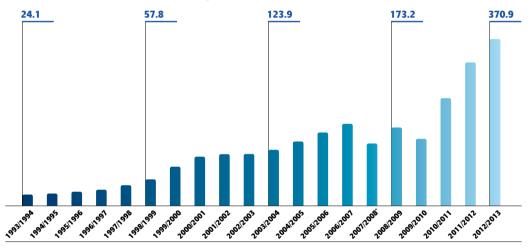
## **CURRENT OPERATING INCOME (IN € MILLIONS)**



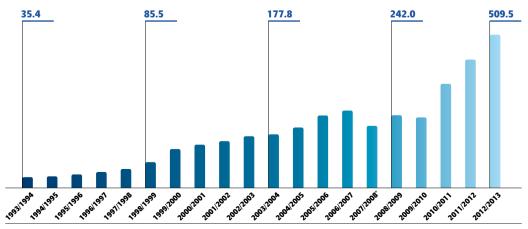
\* Disposal of Marine division



### NET INCOME ATTRIBUTABLE TO EQUITY HOLDERS OF THE PARENTS (IN €MILLIONS)



### **GROSS CASH FLOW (IN €MILLIONS)**



## **ZODIAC AEROSPACE** SHARES

## Zodiac Aerospace shares continue to grow

€ 7.13 reported net earnings per share (excluding IFRS 3) € **1.60** net dividend per share proposed to the General Meeting of Shareholders € 109.55 Share price at August 31, 2013

Listed on Euronext Paris, the Zodiac Aerospace shares were included in the CAC NEXT 20 on September 7, 2012, which comprises the 20 stocks whose size in terms of floating capitalization is right after that of the companies in the CAC 40. In addition, the Zodiac Aerospace stock is included in several all-share market indices: CAC Aerospace & Defense. CAC Industrials. CAC Mid&Small 190. CAC Mid100. 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 stock is eligible for the Deferred Settlement Service (SRD – Service de règlement différé). In the ICB classification, it comes under 2700 – Industrial Goods & Services, and segment 2710 – Aerospace & Defense.

- Euronext / ISIN code: FR0000125684
- Ticker symbol: ZC

## Solid market performance again in 2012/2013

Good results and a buoyant aviation environment contributed during the 2012/2013 fiscal year to further increase the Zodiac Aerospace shares, which closed out the trading session of August 31, 2013 at a closing price of  $\in$  109.55 per share, an increase of nearly 45% over the closing price a year earlier. This represents an outperformance of the SBF 120 index, which increased 16% over the same period.

In five years, the Zodiac Aerospace shares have increased sharply, up 219.4%, with a share price that more than tripled between August 29, 2008 and August 30, 2013. Over the same period , the SBF 120 index posted a slight decline of 5.6%. It should be remembered that the decrease in the shares during the 2007/2008 fiscal year makes the comparison more limited. Over six years, the Zodiac Aerospace shares have risen 106.7%: This doubling of the stock price represents an excellent performance compared to the SBF 120 index, which fell 24% over the same period.

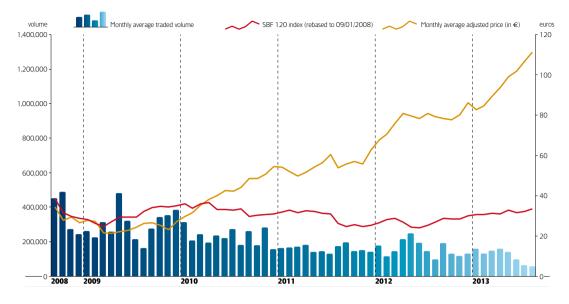
#### **Investor Information**

The www.zodiacaerospace.com website has a dedicated Shareholders section. Financial calendar, stock price, press releases and preparatory documents for the General Meeting of Shareholders: all this information is available in two clicks and can be viewed with any device (computers, tablets, smartphones, etc.). On the website, shareholders can also find information about the Group, its strategy, its positioning, its commitment to sustainable development, and soon about its commercial offering, through a complete, illustrated directory of its systems and products.

### Share capital

At August 31, 2013, the share capital of Zodiac Aerospace stood at  $\in$  11,486,204.40 divided into 57,431,022 shares.

## 2008-2013 ZODIAC AEROSPACE SHARE TREND



BREAKDOWN OF CAPITAL AT AUGUST 31, 2013 (in %)

25% Family

40.3% Voting rights **75%** Floating

59.7% Voting rights

## **CONTACT US**

Via the website www.zodiacaerospace.com

#### By mail

Zodiac Aerospace / Service Actionnaires 61 rue Pierre Curie – CS 20001 78373 Plaisir Cedex

#### Par email

actionnaires@zodiacaerospace.com

	Fiscal year 2008/2009	Fiscal year 2009/2010	Fiscal year 2010/2011	Fiscal year 2011/2012	Fiscal year 2012/2013
High/low (closing price) i	n euros				
High in €	36.67	47.89	62.39	84.83	112.3
Low in €	18.85	22.41	44.95	52.70	73.76
Price at Aug. 31 in €	26.46	47.43	56.08	75.82	109.55
Number of shares at Aug. 31	55,708,078	56,174,207	56,744,439	57,125,728	57,431,022
Market capitalization in k€ at Aug. 31	1,474,036	2,664,343	3,182,228	4,331,273	6,291,568
Average daily traded volume*					
Shares	310,140	270,555	180,893	164,332	127,594
Capital in k€	8,118.14	8,807.44	9,446.91	11,717.27	11,321.51

Source: NYSE-Euronext Paris

\* Only on Euronext Paris.

Detailed data regarding the capital, potential dilution and share-option plans are provided in the "Information for Shareholders" section of the Annual Report, page 21.

## CONSOLIDATED FINANCIAL STATEMENTS

## Consolidated statement of financial position

## **ASSETS**

(in thousands of euros)	Year ended Aug. 31, 2013	Year ended Aug. 31, 2012
Goodwill	1,568,750	1,502,792
Intangible assets	557,528	513,654
Property, plant and equipment	345,089	314,223
Investment in associates and joint ventures	670	536
Loans	145	387
Other non-current financial assets	14,822	14,911
Deferred tax assets	970	463
Total non-current assets	2,487,974	2,346,966
Inventories	859,001	783,113
Current tax assets	37,631	33,523
Trade receivables	738,435	655,631
Advances to suppliers and employees	13,868	10,529
Other current assets	20,662	17,857
Other financial assets:		
- loans and other current financial assets	4,633	3,340
Cash and cash equivalents	156,840	161,802
Total current assets	1,831,070	1,665,795
Held for sale assets (1)	1,356	1,488

<sup>(1)</sup> At Aug. 31, 2012, and Aug. 31, 2013, the amounts pertained to buildings held for sale.

## **EQUITY AND LIABILITIES**

(in thousands of euros)	Year ended Aug. 31, 2013	Year ended Aug. 31, 2012
Capital	11,486	11,425
Share premiums	125,194	113,929
Consolidated reserves	1,905,651	1,654,462
Currency translation adjustments	(48,647)	51,276
Fair value adjustment of financial instruments	393	(4,562)
Net income attributable to equity holders of the parent company	370,914	318,881
Treasury stock	(89,880)	(89,253)
Equity attributable to equity holders of the parent company	2,275,111	2,056,158
Minority interest		
- in equity	727	1,281
- currency translation adjustments	(82)	(81)
- in consolidated net income	(186)	(550)
Minority interest	459	650
Equity	2,275,570	2,056,808
Non-current provisions	59,989	56,266
Non-current financial liabilities	908,597	715,891
Other non-current financial liabilities	1	228
Deferred tax liabilities	157,154	142,159
Total non-current liabilities	1,125,741	914,544
Current provisions	76,064	67,101
Current financial liabilities	92,005	277,460
Other current financial liabilities	281	4,823
Accounts payables	312,993	338,449
Liabilities to employees and payroll liabilities	179,748	161,534
Current tax liabilities	52,796	34,241
Other current liabilities	205,202	159,289
Total current liabilities	919,089	1,042,897
TOTAL LIABILITIES	4,320,400	4,014,249

## Consolidated statement of profit and loss

(in thousands of euros)	Year ended Aug. 31, 2013	Year ended Aug. 31, 2012
Sales revenue	3,891,609	3,440,637
Other revenue from operations	10,589	9,858
Purchases used in the business	1,556,945	1,389,948
Personnel costs	1,142,989	1,007,910
External costs	537,970	499,599
Taxes other than income taxes	30,394	26,081
Depreciation and amortization charges	81,923	70,095
Charges to provisions	24,629	13,406
Changes in inventories of finished goods and work in progress	38,089	43,684
Other operating income and expenses	(1,107)	(711)
Current operating income	564,330	486,429
Non-current operating items	(23,186)	(11,468)
Operating income	541,144	474,961
Income/(expenses) related to cash and cash equivalents	(424)	(2,289)
Cost of gross debt	(25,259)	(28,368)
Cost of net debt	(25,683)	(30,657)
Other financial income and expenses	(2,365)	(2,512)
Income taxes	141,636	134,398
Results of companies accounted for using the equity method	(732)	-
NET INCOME from continuing operations	370,728	307,394
NET INCOME from businesses being sold and income from disposals of held-for-sale assets		10,937
NET INCOME	370,728	318,331
Attributable to non-controlling interests	(186)	(550)
Attributable to equity holders of the parent company	370,914	318,881
Basic earnings per share attributable to equity holders of the parent company	6.81	5.89
Diluted earnings per share attributable to equity holders of the parent company	6.73	5.82

## Consolidated statement of cash flows<sup>(1)</sup>

(in thousands of euros)	Year ended Aug. 31, 2013	Year ended Aug. 31, 2012
Operating activities:		
Net income	370,728	318,331
Results of companies accounted for using the equity method	732	-
Depreciation, amortization and provisions	116,090	85,942
Capital gains (2)	1,102	(12,767)
Deferred taxes	13,570	30,639
Share options	7,670	6,105
Other	(416)	(701)
Cash flow from operations	509,476	427,549
Net change in inventories	(73,087)	(101,991)
Net change in operating assets	(92,923)	(95,630)
Net change in debt	48,140	70,278
Cash flow generated from continuing operations	391,606	300,206
Cash flow generated from operations of business being sold	-	-
Cash flow from continuing operations and businesses being sold	391,606	300,206
Investing activities:		
Acquisitions of non-current assets:		
- intangible assets	(73,905)	(71,621)
– property, plant and equipment	(95,218)	(82,650)
- other	(1,118)	(3,556)
Proceeds from sale of property, plant and equipment	1,144	890
Changes in receivables and payables relating to fixed assets	(582)	1,217
Acquisitions/(disposals) of entities, net of cash acquired (3)	(159,615)	(404,992)
Cash flow from investments in continuing operations	(329,294)	(560,712)
Cash flow from investments in businesses being sold	-	-
Cash flow from investments in held-for-sale assets (4)	-	27,418
Cash flow from investments in continuing operations	(329,294)	(533,294)
and businesses being sold	(329,294)	(333,234)
Financing activities:		
Change in financial debt	1,071	182,158
Change in financial instruments	-	_
Increase in equity	11,326	14,974
Treasury stock	(627)	2,261
Ordinary dividends paid by parent company	(76,080)	(64,751)
Dividends paid to minority interests	-	-
Cash flow from the financing of continuing operations	(64,310)	134,642
Cash flow from the financing of businesses being sold	-	-
Cash flow from the financing of continuing operations and businesses being sold	(64,310)	134,642
Currency translation adjustments, beginning of period	(8,176)	35,257
CHANGE IN CASH AND CASH EQUIVALENTS	(10,174)	(63,189)
CASH AT BEGINNING OF PERIOD	148,895	212,084
CASH AT END OF PERIOD	138,721	148,895

<sup>(1)</sup> The Group did not record any transactions between shareholders during the period.

<sup>(2)</sup> At August 31, 2012, this includes the capital gain from the disposal of the Issy-les-Moulineaux building and of a Driessen repair business.

<sup>(3)</sup> At August 31, 2012, this involves mainly the purchase of Heath Tecna and Zodiac Seats UK (formerly Contour Aerospace), and at August 31,

2013, the purchase of Zodiac Inflight Innovations (formerly IMS) and its subsidiary Base2, Innovative Power Solution, Northwest Aerospace Technologies and Zodiac Aero Duct Systems (formerly ACC La Jonchère).

(4) At August 31, 2012, this includes the sale price, exclusive of taxes, of the Issy-les-Moulineaux building and of a Driessen repair business.

# NON-FINANCIAL INDICATORS

## **KEY ENVIRONMENTAL** INDICATORS

## at August 31

_	2011/2012	2012/2013	2012/2013
ENERGY (thousands of kWh)	(59 sites <i>,</i> or 87% of staff	(59 sites, or 87% of staff	(76 sites, or 95% of staff
Electricity	166,553	158,505	183,049
Gas	101,482	107,846	117,765
Fuel	3,463	4,164	4,164
TOTAL	271,498	270,515	304,978

	2011/2012	2012/2013	2012/2013
WATER (thousands of m <sup>3</sup> )	(22 sites, or 31% of staff)	(22 sites, or 31% of staff)	(74 sites, or 94% of staff)
TOTAL	259	310	910

	2011/2012	2012/2013	2012/2013
WASTE (tons)	(60 sites, or 87% of staff)	(60 sites, or 87% of staff)	(76 sites, or 95% of staff)
Discharged	6,802	6,405	7,584
Recycling of material	7,337	8,025	9,271
Energy Recovery	1,746	1,677	1,880
TOTAL	15,885	16,107	18,735
% Recycled	<b>46</b> %	50%	<b>49</b> %
% Recovered	57%	60%	60%

- Accident with environmental impact: none recorded
- Gradual pollution of soil: none recorded
- Gradual pollution of the natural environment: none recorded
- Chronic pollution of soil: none recorded
- Gas emissions quota trading no site subject to this at August 31, 2013
- ICPE regulations
  - At August 31, 2013, no site was subject to registration
  - At August 31, 2013, four sites were subject to periodic control
  - At August 31, 2013, five sites were subject to authorization

## **PERMANENT** EMPLOYEES

## at August 31

		2011	2012	2013
Zodiac Aero	Safety	4,579	4,780	4,073
Including companies: in France		1,812	1,857	1,391
	in Europe (excluding France)	196	185	121
	in the United States	1,494	1,313	1,313
	in the rest of the world	1,077	1,429	1,248
Zodiac Airci	raft Systems	3,841	4,211	5,992
Including com	ipanies: in France	2,740	2,897	3,462
	in Europe (excluding France)	22	23	345
	in the United States	691	653	1,374
	in the rest of the world	388	638	811
Aircraft Int	eriors	12,653	15,584	15,889
Including com	ipanies: in France	1,102	1,220	1,238
	in Europe (excluding France)	2,096	3,272	2,938
	in the United States	6,007	7,155	6,950
	in the rest of the world	3,448	3,937	4,763
Subtotal:				
Zodiac Cabi	n & Structures			6,227
Zodiac Galle	eys & Equipment			3,866
Zodiac Seat	s			5,796
Holdings		84	117	128
<b>GROUP TOT</b>	<b>FAL</b>	21,157	24,692	<b>26,082</b> *
Including companies: in France		5,738	6,091	6,214
	in Europe (excluding France)	15,089	3,480	3,404
	in the United States	8,192	9,121	9,637
	in the rest of the world	4,913	6,000	6,827

\* Including 211 employees integrated following the acquisitions made by Zodiac Cabin & Structures and 355 by Zodiac Aircraft Systems. Not included are 1,269 employees in Tunisia who cannot be classified as permanent because of the legal nature of their local employment contract.

#### **PHOTO CREDITS**

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