



**MASTERING THE ELEMENTS** 

- 02 Zodiac Aerospace, a world-class equipment manufacturer
- 06 Message from Olivier Zarrouati
- **08** Stopovers 2013–2014

## 14 OUR GROUP

- 16 Development
- 20 Innovation
- 24 R&D
- 26 After-sales and repairs
- 28 Operational excellence

## **30 OUR ACTIVITIES**

- 32 Zodiac Aircraft Systems
- 42 Zodiac AeroSafety
- 52 Zodiac Cabin & Structures
- 60 Zodiac Galleys & Equipment
- **68** Zodiac Seats

# 76 OUR COMMITMENTS 92 LOG BOOK

- 78 Human Resources
- 84 Environment
- 91 Societal Commitment

MANAGEMENT TEAM FINANCIAL STATEMENTS OF THE GROUP 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, onboard 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 complex challenges in aerospace. ZODIAC AEROSPACE, A WORLD-CLASS EQUIPMENT MANUFACTURER

### 4 DEVELOPMENT PRINCIPLES

**DIVERSIFYING** in businesses with a high-technology content, through internal and external growth

**SUPPORTING** our customers over the long term through reliable after-sales activity

**FOCUSING ON NICHE MARKETS** to acquire or strengthen leadership positions

**ENSURING** steady growth in earnings per share

**COMFORT AND** LIFE ON BOARD AIRCRAFT **AIRCRAFT INTERIORS** 70DIAC **CABIN & STRUCTURES** OVERALL DESIGN AND IMPLEMENTATION OF CABIN LAYOUT ZODIAC **GALLEYS & EOUIPMENT** CABIN EQUIPMENT SOLUTIONS TO OPTIMIZE ONBOARD SERVICE AND PASSENGER COMFORT **ZODIAC** SFATS A COMPREHENSIVE AND INNOVATIVE RANGE OF SEATS FOR GREATER COMFORT. **OPTIMIZING WEIGHT AND** SPACE A COMPREHENSIVE RANGE OF AFTER-SALES SERVICES ZODIAC TECHNICAL SUPPORT AEROSPACE A GLOBAL NETWORK FOR REPAIR SERVICES SERVICES AND SPARE PARTS DISTRIBUTION

# 3 core business areas,5 business segments



ZODIAC AEROSPACE, A WORLD-CLASS EQUIPMENT MANUFACTURER

# $\in 4.2$ BILLION

## CONSOLIDATED REVENUE

**CONSOLIDATED REVENUE** 

by business segment



€567.3 MILLION CURRENT OPERATING INCOME\*

€354.4 MILLION REPORTED NET INCOME

13.6% OPERATIONAL MARGIN\*

€ 1.35 REPORTED NET EARNINGS PER SHARE\*

\* Excluding the effect of IFRS 3



# 29,708 **EMPLOYEES** WORLDWIDE

66% of whom are based out of Europe (including France)



**DEFINE AND IMPLEMENT STANDARDS** to ensure workplace safety

#### **DEMONSTRATE THE PERSONAL**

**COMMITMENT** of all senior management toward safety (exemplary, etc.)

#### **DEVELOP THE NOTION OF RESPONSIBILITY** among all operators

#### **INVOLVE LINE MANAGEMENT** in

identifying and reporting potentially hazardous situations

#### **CONDUCT SAFETY CAMPAIGNS**

(run by line management and including communication on progress and success)





# MESSAGE FROM OLIVIER ZARROUATI CHIEF EXECUTIVE OFFICER

All in all, the fiscal year demonstrated the strength of our Group, while focusing on civil aviation, has diversified enough so that the performance of some of our segments – this year Zodiac Aircraft Systems and Zodiac AeroSafety – compensated for the less successful performance of others.

odiac Aerospace had a mixed 2013/2014 fiscal year. Our revenue continued to increase, exceeding 4 billion for the first time. We won a substantial amount of new business as a result of innovations in our five business segments. Another positive development was the strengthening of our global leadership positions following the purchase of TriaGnoSys for in-flight entertainment and connectivity (IFEC) systems, Pacific Precision Product for oxygen systems for business aviation, and Greenpoint Technologies for VIP cabin interiors. We ended the year with an operating margin of 13.6%, a good level compared to our peers but down on the previous year due to unfavorable exchange rates and the temporary difficulties encountered by our Zodiac Galleys & Equipment and Zodiac Seats segments.

All in all, the fiscal year demonstrated the strength of our Group, while focusing on civil aviation, has diversified enough so that the performance of some of our segments – this year Zodiac Aircraft Systems and Zodiac AeroSafety – compensated for the less successful performance of others. The operational difficulties of Zodiac Galleys & Equipment at the beginning of period were settled in the second half of the year, while those affecting Zodiac Seats at year-end are in the process of being resolved.

Paradoxically, the difficulties with Zodiac Seats were caused by the success of our new seat range, which was completely overhauled with new products released in all market segments: economy class, premium economy, business class, and first class. Yet at the same time, we were able to deal with production ramp up and new, more stringent certification rules. Despite the extra work for our design offices and delays in our design and production chain, we remained customer-focused and established action plans firstly to restore our delivery schedules and secondly to eliminate incremental production costs. Against this backdrop, we also made changes to the Group's organization, strengthening operational management and making our development and production process more robust. As a Group, we are keenly aware of our community and environmental responsibilities in our host countries. To this end, we have stepped up our commitment to improving the safety of our employees and facilities, reducing our environmental footprint, and ensuring respect for human rights. During the fiscal year we joined the United Nations Global Compact, demonstrating our determination to align our operations with the ten universal principles relating to human rights, labor standards, the environment and the fight against corruption.



In 2014/2015 we will continue to expand Zodiac Aerospace and consolidate our position as leader and pioneer in our business sectors. We will also strengthen our operational excellence and enhance our Group's image and reputation for the commitment and wellbeing of its employees.

# STOPOVERS



# AIRCRAFT INTERIORS EXPO 2014

Zodiac Aerospace was one of the main exhibitors at the 2014 Aircraft Interiors Expo in Hamburg (Germany) with two stands, one of over 1,000 m<sup>2</sup> where it presented multiple innovations in the field of cabins, and another where it presented its innovations in IFE<sup>1</sup> and connectivity.

#### Innovations displayed in the Innovative Space Interior System Premium Body Cabin mockup

A record number of innovations were unveiled by the Group to delegations from over 120 manufacturers, airlines and leasing companies. Some of these innovations were incorporated into the Innovative Space Interior System Premium Body Cabin mockup, including the Revolution<sup>™</sup> Toilet units, the Advanced Lavatory, new-technology stowage bins for twin-aisle aircraft, the G2 galley

<sup>1</sup> In-Flight Entertainment Systems

with integrated airbags to protect the first row of seats, and new T&U galleys with a trolley–lift system to optimize the use of vertical space.

Visitors were also able to check out seats (Z85, Z100, Z300, Aura, Aries, Cirrus) and galley inserts (the Hybrite line and Symphony<sup>™</sup> and Concert<sup>™</sup> suites), and had a chance to view innovations in lighting, oxygen systems, and water and waste management systems on a series of display panels. Other innovative Zodiac Seats seat concepts were on show in "Experience Rooms".







In business class, the Fusio has been significantly enhanced to offer the elegance and refinement of a first-class seat, while the Gemini, which can face forward or backward, offers more comfort than ever thanks to the widest bed in its market segment. The Halo design for first class is a luxurious hi-tech suite with an individualized cabin comprising two seats, a sofa that can be converted into a double bed, and a series of screens allowing passengers to stay connected and work or enjoy an incomparable panoramic view.

#### Multiple new seat concepts

The HD27 and HD31 seats demonstrated that Zodiac Seats has successfully addressed the need for more cabin seating without sacrificing comfort. Another economyclass seat, the L3, brings



# STOPOVERS



### **SPACEFLEX V2,** A NEW GALLEY AND LAVATORY SYSTEM

Developed in conjunction with Airbus and designed for the A320 family, the SpaceFlex v2 system consists of a galley and two lavatories and offers the possibility of adding up to two extra rows of cabin seating. Other benefits include increased galley capacity for loading meal trays for service on outbound and return flights, and a lavatory for persons with reduced mobility. SpaceFlex v2 is based on feedback from Airbus's SpaceFlex v1 and on Zodiac Aerospace's Innovative Space Interior System. Its entry into service is planned for 2016.











TUNISIA

**In Grombalia, Tunisia,** the Zodiac Galleys & Equipment plant began galley production in March 2014.

#### FLIGHT-HOUR **MAINTENANCE CONTRACT** WITH SINGAPORE AIRLINES

In February 2014, Zodiac Aerospace Services was awarded the contract to maintain all the chillers of Singapore Airlines' 29 Boeing B777 aircraft. Service is invoiced based on the number of flight hours per aircraft per month and includes the provision of spare parts during aircraft maintenance as well as repairs.



The COMAC Silver Performance Excellence award was presented to Zodiac Aerospace when the Chinese manufacturer invited its suppliers to Shanghai in March 2014. COMAC's C919 is fitted with multiple elements manufactured by the Group, including galleys, lavatory units, PSUs<sup>2</sup>, water and waste management systems, cockpit doors, evacuation slides, and pilot and crew seats.

### A UNIQUE TEST BENCH IN EUROPE

With its mobile 8 x 4-meter platform, tiltable up to 20° on two axes, the helicopter fuel system test bench went into operation at the end of 2013 in Caudebec-lès-Elbeuf in France and can simulate the functioning of high-volume flexible tanks. Because it handles large volumes of pressurized fuel, the test bench is housed in a facility built to meet stringent standards in terms of protecting people, property and the environment.







reddot award 2014

2014 Red Dot **Design Concept** Award for the Innovative Space Interior System lavatory.

# WELL-EQUIPPED CREWS

As was the case for flight tests of the A380 and A400M, Airbus pilots, co-pilots and flight engineers testing the Airbus A350 XWB are provided with safety and rescue equipment specially developed by Zodiac AeroSafety. This includes a vacuum-sealed survival kit comprising a single-seat watercraft integrated into the seat base, an emergency parachute with chrono-barometric release handle, a lifejacket with radio beacon, and other survival items.



MEXICO

SATELLITE ANTENNA FOR ENVIRONMENTAL MONITORING

After successful testing at the Zodiac Data Systems site in La-Teste-de-Buch in France, the satellite antenna belonging to the Gabonese Agency for Space Studies and Observations (AGEOS) is being installed in Nkok, Gabon. AGEOS will be able to use satellite images to monitor the status of the country's forest resources and marine activity in the Gulf of Guinea.

Lufthansa aircraft were fitted with the **RAVE** system at the end of September 2014 under the German carrier's program to upgrade 69 of its Boeing B747 and Airbus A330 and A340 aircraft.



# STOPOVERS



### THE **E-FAN** TAKES OFF – NO NOISE, NO POLLUTION

Unveiled at the 2013 Paris Air Show in Le Bourget, France, the E-Fan, the small twin-engine, carbon-fiber electric propulsion aircraft, completed its first flight in March 2014. Zodiac Aerospace has partnered with Airbus Group Innovation to supply the aircraft's electrical system and power batteries. The first E-Fans will be marketed to flying clubs and flight schools.



#### CONTINUOUSLY IMPROVING **COMFORT**

Selected by Dassault for the Falcon 5X, its latest long-haul jet, the pilot seat adapts to any body shape thanks to its new design and base height. The design of the third occupant's seat has also been completely revised to offer new options and features.

#### MORE CONFORTABLE CREW REST AREA

Teams at Zodiac Galleys & Equipment are putting the finishing touches to a new lower-deck mobile crew rest area (LDMCR) in Pilsen, and in Alkmaar where they are using a special-purpose mockup. The goal is to improve crew comfort by providing facilities where they can get ready to resume service without passing through the cabin, and also free up seats in the cabin. The Group already supplies LDMCR areas for the Airbus A330.



#### OPENING OF THE IFE REPAIR CENTER AT ROISSY

Zodiac Aerospace Services' European IFE<sup>4</sup> equipment maintenance center at Roissy-Charles-de-Gaulle went into service in December 2013. It supports the Group's expansion in this growth market and supplements its North American workshops.



#### MEXICO TIJUANA PLANT EXTENSION

The plant in Tijuana, Mexico, has been extended by more than 30,000 m<sup>2</sup> to step up production of cabin interiors for the Boeing B787 and Bombardier CSeries. At the same time, facilities in California and Marysville, in the United States, are focusing on developments for new programs for the Irkut MC-21, COMAC C919, HondaJet, Learjet 85 and Mitsubishi Regional Jet.



<sup>4</sup> In-Flight Entertainment Systems





## ZODIAC SEATS: ONE OF AIRBUS'S MAIN SUPPLIERS IN THE UNITED STATES

When the Gainesville plant delivered the first seat for the A350 XWB in March 2014, Daniel Wenninger, Senior Director of the Airbus A350 XWB program in the United States, acknowledged Zodiac Seats US as one of the manufacturer's main suppliers in the U.S. In 2014, 40% of the seats manufactured by Zodiac Seats US were destined for Airbus.



# reddot award 2014

reduced energy consumption. This follows on from the award won by the Concert<sup>™</sup> line of inserts in 2013. honourable mention

#### 2014 LEADERS DE LA FINANCE AWARD

Zodiac Aerospace was the recipient of France's 2014 Leaders de la Finance Silver Award in the Industry-sector Financial Departments category for its private investments in 2013.

Over 1,000 SmartLav and AftComplex lavatories have been ordered for the retrofit market.

# **97,000 trolleys**

delivered in 2013/2014 by the Lamphun plant in Thailand.

.....

#### **STRONGER PARTNERSHIP** WITH FMIRATES

Emirates has selected the 5751 economy-class seat for 50 Boeing B777-300ER aircraft currently on order. The seat is already installed on 90 of the carrier's Boeing B777 and Airbus A380 aircraft. This further strengthens the partnership between Zodiac Aerospace and



Emirates, which has also installed the Skylounge seat in business class on its Airbus A380.



**Airbus confers Top** Supplier Award in the United States on Zodiac AeroSafety **Evacuation Systems** division for its development of the Airbus A350 XWB evacuation slide.

Bombardier has begun flight-testing its new-generation, single-aisle CSeries aircraft for which Zodiac Cabin & Structures is providing the entire cabin interior.



## OUR GROUP



# THE BOUNDARIES is our daily business

Zodiac Aerospace continues to grow as a result of a broader product offering, a targeted acquisitions strategy, the development of innovative technologies and the deployment of Lean management. At the same time the Group is improving its customer service and working to produce technologies for tomorrow's aircraft.

# DEVELOPMENT

# MORE IN-DEPTH EXPERTISE for better service TO OUR CUSTOMERS

Zodiac Aerospace is continuing to expand in order to build and consolidate global leadership positions in its markets and continually improve the service delivered to its customers (aircraft manufacturers and airlines).

This policy is based on a strategy of targeted acquisitions, the development of innovative technologies, and the expansion of the Group's range of products and services, especially for cabins.

## Contributing to our customers' profitability...

Beyond the individual performance of each of our business segments, we add value for customers through our expertise in all cabin-related businesses. This enables us to offer a constantly expanding range of products and services and increasingly advanced integrated solutions that optimize the use of onboard space, improve service and contribute to customer profitability. For systems, we offer customers the possibility of purchasing even the most complex fully integrated systems via a single consultant. Our latest system, certified in September 2014. is the complete electrical distribution system for the Airbus A350 XWB, one of the most complex available for this long-haul aircraft.

## ... and constantly improving their satisfaction

Another of the Group's strengths and key development areas is its very close relationships with its customers. Throughout the world, our teams listen to customers to gain greater understanding of their current and future needs and provide them with appropriate solutions and technologies. Indeed, this is the objective of our annual Airlines Symposium, arranged for the third time in 2014. It was held at Huntington Beach and attracted some 130 customers, airlines and leasing companies. We have strengthened our relationship with aircraft manufacturers, meeting them regularly and, via our Business Development department, creating a structure that assigns them a dedicated consultant who has an ongoing dialogue with each of our major accounts. In addition,

to better assess their degree of satisfaction, we use management charts to measure the quality of our products, services and technical after-sales follow-up, as well as our commercial relationship. This tool provides a homogenous view of our performance and helps us continually improve our customer service.

# Favouring the balance of our customer portfolio

We are extending this process for ongoing developments with regional aircraft manufacturers such as Mitsubishi for its MRJ, Bombardier for its CSeries, and Embraer, a longstanding customer with whom we have opened a production unit in Chihuahua. Embraer has selected us for the cabin interior and all the seats of its future E2, as well as for oxygen systems, and water and waste management systems. »



#### Ė E2

Zodiac Aerospace has been selected by Embraer for the cabin interior of its future E2, including all the seats, oxygen systems, and water and waste management systems.

ANOTHER OF THE GROUP'S STRENGTHS AND KEY DEVELOPMENT AREAS IS ITS VERY CLOSE RELATIONSHIPS WITH ITS CUSTOMERS. THROUGHOUT THE WORLD, OUR TEAMS LISTEN TO CUSTOMERS TO GAIN GREATER UNDERSTANDING OF THEIR NEEDS AND PROVIDE THEM WITH APPROPRIATE SOLUTIONS AND TECHNOLOGIES. 99



Maurice Pinault

Deputy CEO – Development



We are also continuing to expand in the business aviation sector, especially systems, for customers such as Dassault, Gulfstream and Bombardier. In due course, our developments will ensure we have a more balanced customer portfolio.

## Developing optimized solutions with our customers

Our customer relationships extend to detailed collaboration aimed at creating optimized solutions. To this end, our research centers in Toulouse and Seattle have dedicated teams that include representatives from our different divisions. Another example is the work conducted in Los Angeles by our design and innovation studio, ZEO, which produces full–scale models of cabin interiors to refine the Innovative Space Interior System concept. This is the new cabin interior solution format selected by a number of airlines for retrofitting their Airbus A320 and Boeing B737.

# Strengthening our positions through targeted acquisitions

In keeping with our niche strategy of developing and consolidating global leadership positions in our markets, we acquired three companies in 2013/2014. Two of these were in the Zodiac Aircraft Systems business segment: TriaGnoSys, which supplements our IFE<sup>5</sup> offering, and Pacific Precision Products, which strengthens our position in the business aviation sector for oxygen systems. The third acquisition, Greenpoint Technologies, boosts our global leadership in cabin interiors, extending it to the interiors of VIP aircraft and giving us access

to a whole new business line – that of prime contractor for full cabin-system configuration (IFE, lighting, water and waste management, etc.). Sharing our entrepreneurial

### culture

These acquisitions, which are principally due to our sound reputation and ability to engage in dialogue (exclusively in all three cases), join the 37 acquisitions already made by Zodiac Aerospace in the aerospace sector since 1978. We have developed in-depth know-how and a strong entrepreneurial culture that enable us to integrate our acquisitions and develop internal synergies while allowing each entity the autonomy needed to flourish and grow. In other words, we respect their essential ethos.

## THREE MAJOR ACQUISITIONS DURING 2013/2014 FISCAL YEAR

#### **TriaGnoSys**

Specialized in inflight connectivity, wireless entertainment and cabin systems, the company is based in Oberpfaffenhofen, near Munich, Germany.

#### **Pacific Precision Products**

A specialist in oxygen equipment systems, particularly for business aircraft, the company has 40 employees in Irvine in the United States.

#### **Greenpoint Technologies**

World leader in VIP cabin interiors for widebody aircraft and completion center for Boeing Business Jet, the company has 450 employees in Kirkland and Denton in the United States.

<sup>5</sup> In–Flight Entertainment Systems



The Group opened its Engineering Business Training Center in Rabat in 2013.

#### ZEO

**ZEO has refined the Innovative Space Interior System concept,** the new cabin interior solution selected by a number of airlines for retrofitting their Airbus A320 and Boeing B737.



## OUR LOCAL ENTITIES ARE INCREASINGLY INVOLVED IN DEVELOPMENTS

Ramping up our business in cost-competitive countries contributes to our customers' performance and to our own long-term development. Our increased production in 2013/2014 was accompanied by a sharp increase in our workforce, from 6,500 to 8,500 including 3,800 in Mexico. In March, we started our galley manufacturing activities in Grombalia, Tunisia, and launched new production lines: cabin interiors in Tijuana, and inserts in Thailand at the Lamphun plant which manufactures trolleys and galley mechanisms. Having had operations in Tunisia for many years, Zodiac Aircraft Systems is now furthering its activities in Mexico to safeguard production and be closer to its American clients. With design offices at Zodiac Aircraft Systems in Morocco, Zodiac Cabin & Structures in Mexico and Brazil, and Zodiac Seats in Tunisia and Mexico, our local entities are increasingly involved in development. These engineering teams help strengthen our research capacity and improve our customer service, especially in terms of lead times and costs. This trend goes hand in hand with training programs run by the European entities concerned and, in Morocco, by the Engineering Business Training Center which we opened in Rabat in 2013.



OUR INCREASED PRODUCTION IN 2013/2014 WAS ACCOMPANIED BY A SHARP INCREASE IN OUR WORKFORCE. 99

Thierry Février Industrial Development Director

# **INNOVATION**

# A NECESSITY and lever FOR GROWTH

From new materials and power electronics to connectivity, optics and energy storage systems, Zodiac Aerospace focuses on innovation to design and produce more efficient systems that respond more closely to customer requirements and pave the way for tomorrow's technologies and aircraft. This approach is enriched by collaboration with customers (aircraft manufacturers and airlines), as well as partnerships with universities and industry in Europe and the United States.

#### **Customer-focused innovation**

Our aim is to provide customers not only with the technologies they need now, but also those they are going to need in ten or twenty years' time, bearing in mind that passengers, airlines and aircraft manufacturers have different concerns. Passengers are concerned about comfort, hence our work on lighting, ergonomics and connectivity to upgrade our onboard products with the new functionalities used by consumers.

For airlines, three challenges have to be addressed in terms of innovation. First, optimizing the number of passengers in a smaller space without increasing the aircraft's weight. We are focusing on lighter materials: composites, thermoplastics, aluminum–lithium and magnesium alloy. The second challenge is to optimize comfort and develop new functionalities for passengers. We are concentrating our research on the seats of the future, which, for example, will adapt to the morphology (body shape) of their occupants, and on connectivity. Thirdly, airlines want equipment that is increasingly reliable and easier to maintain, which means developing connectivity, particularly systems for real-time information about the state of the equipment (health monitoring) to anticipate breakdowns. Aircraft manufacturers, in addition to challenges related to equipment weight and reliability, are concerned about alternatives to fossil fuels, hence the "more electric aircraft" project. In this area, we are conducting tests with the CEA<sup>6</sup> on our fuel cell demonstrator for aeronautical application and, with support from the DGAC<sup>7</sup>, we will be defining the logistics necessary for the deployment of a fuel cell in an airport or on board an aircraft. We are also working on high-energy batteries and our success in this area has led to a contract to supply Airbus Group Innovation with the storage >>>

#### Zodiac Scientific & Technical Council (ZSTC)

.....

In addition to Techno-days, primarily dedicated to mechanical, electronic and thermal simulation, ZSTC has held its first Engineering seminar. This was an opportunity to facilitate sharing of best practices within a standardized development framework. A brochure describing these missions has also been circulated throughout the Group and to its suppliers.



<sup>6</sup> The French Alternative Energies and Atomic Energy Commission

7 The French Civil Aviation Authority

**The onboard gas inerting system** for fuel tanks developed by Zodiac Aerospace uses polymer membrane gas separation technology to produce inert (i.e. oxygen deprived) gas. The presence of this gas protects against the risk of fire or explosion. Roche-la-Molière Laboratory.

**The Zodiac Galleys & Equipment Experience Center,** opened in Alkmaar in April 2014, recreates catering conditions using galley mockups installed in the fuselage of a single-aisle aircraft. The goal is to improve the in-flight service experience for both crew and passengers.

SHARE?

### OUR RESEARCH IS ENRICHED BY ONGOING DIALOGUE WITH THE RESEARCH CENTERS OF AIRCRAFT MANUFACTURERS AND AIRLINES. 99

Thierry Rouge-Carrassat Group Chief Technology and Innovation Officer



and power-distribution chain for its electric-twin-engine E-Fan aircraft, which made its inaugural test flight in March. To support our developments, we also acquired the MTA<sup>8</sup> laboratory in Poitiers which specializes in testing battery power.

#### An open approach

Our research is enriched by ongoing dialogue with the research centers of aircraft manufacturers and airlines. Our collaboration with Airbus Group Innovation, for example, resulted in our being selected for the E-Fan project. With Air France, we are working on the passenger seats of the future. With EUTELSAT, we are developing the technological bricks of a ground/onboard connectivity offer. And with Boeing, we are working on fuel systems. We have opted to conduct these projects within the context of European initiatives like Horizon 2020 or national ones like the  $PIA^9$ We have asked the French Civil

Aviation Research Council (CORAC), which is already assisting us with a number of projects under the Factory of the Future program, to work with us on a project geared toward additive manufacturing (the manufacture of metal parts using 3D printing). The project is being spearheaded by five Group entities in the United States, France and Germany.

We are gradually opening up this collaborative approach to our suppliers, offering them support in the form of research grants and establishing with them a clear industrial-property framework from the outset. Another line of progress is that we formalized our patent management policy in 2014 and strengthened our expertise by recruiting a Senior Patents Engineer. We also ran a second campaign to appoint Group experts with 4 fellows and 15 new senior experts who disseminate their expertise beyond the confines of their entity.

#### **500** engineers

#### dedicated to R&T projects

#### 4 world-class laboratories

Los Angeles (United States), ZEO: cabin interiors (design studio)

Alkmaar (Netherlands), Experience Center: galleys and trolleys

Roche-la-Molière (France): fuel tank inerting system

Niort (France), Montreuil laboratory Systems Test Center: electrical systems (storage and distribution)

 20 university partnerships in Europe,
15 in the United States

**50** patents filed each year

150 Group experts,33 seniors experts,4 fellows

## R&D

# FOCUS *Montreuil* R&D CENTER

As world leader in onboard electrical power distribution systems, Zodiac Aerospace develops the technologies and systems for the future at its R&D center in Montreuil and its Systems Test Center in Niort. Its expertise also extends to electrical power generation through the work of Zodiac Innovative Power Solutions based in the United States. The Montreuil center also hosts teams who design and develop cockpit systems, windshield wipers and lighting.



This electrical power distribution box has been developed under the European Clean Sky initiative which aims to gradually replace pneumatic and hydraulic systems with electrical systems. This is a prerequisite for the more electric aircraft of the future.

#### **High energy lithium-ion electric batteries** for

aeronautical application are designed to meet onboard system and propulsion needs, such as for the E-Fan project developed with Airbus Group Innovation.





Static switch electronic cards are gradually replacing the electromechanical contactors that command electrical circuits. The teams at Montreuil are responsible for their design and monitoring.

The mockup of the cockpit of the future, connected to a flight simulator, integrates products under development, putting them in simulated situations so they can be better assessed by customers and users. Products being assessed include cockpit seats, OLED (Organic LED)-technology lighting that is more reliable and less energy-intensive, and video touch screens that facilitate pilots' access to flight data.





Electromagnetic test chamber, used to validate the robustness of the Group's equipment and systems in disruptive electromagnetic environments.





Research on electrical power generators, a specialty of Zodiac Innovative Power Solutions, is aimed at developing more reliable, higher yield solutions that deliver better performance.

#### The Systems Test Center at Niort

uses test benches representative of aircraft configurations to simulate all situations of an onboard electrical power system and validates the different configurations and functionalities of the electrical distribution system.



#### For external lighting,

Zodiac Cockpit & Lighting Systems is developing LED technologies and simulating their performance and characteristics in a dedicated laboratory.



# **AFTER-SALES AND REPAIRS**

# AN ENHANCED OFFER *for a higher* ADDED-VALUE SERVICE

Zodiac Aerospace Services has restructured and enhanced its offer, increasing the quality of its services and forging closer ties with its customers worldwide. It is an approach that not only focuses on improving customers' satisfaction with their daily fleet operation over the long term, but also acts as a development vector for the Group, strengthening its image with air operators.

#### **Four service offers**

Starting from the needs of our customers and the solutions we offer them, we have reorganized our offering and structure around four divisions: (i) Spares Supply, (ii) Component Repair, (iii) Operator Programs, and (iv) Product Support. We have also strengthened our customer support department with a dedicated consultant for each airline or manufacturer, responsible for managing their relationship with Zodiac Aerospace Services on a daily basis. Centered on our clients, our new organization is intended to improve the quality and reliability of our services and bring us closer to our customers

In addition, the creation of the Zodiac OEM Marketing and Product Management department is improving the interface with the Group's five business segments as well as our knowledge of their products and markets.

# Reliability, punctuality, responsiveness

To respond better to the very strong demands of air operators, both in terms of the reliability and punctuality of our services and the management of their orders, we have revised our global logistics for the delivery of spare parts and equipment. For example, we have introduced new IT tools at our five call centers to forecast requirements, track orders and assist customers.

For repairs, our watchword is to reduce the downtime for an equipment so that its operator can make maximum use of it. We have been working on two areas, firstly the improvement of our repair processes and advance stocking of sub-assemblies, and secondly the availability of teams and the offer of immediate standard exchange or rental.

#### **Full-service offers**

As our aim is to free our customers from activities that are outside their core business, we have constructed an offer whereby airlines and leading MRO<sup>10</sup> companies involved in flight-hour maintenance entrust us with the entire maintenance and logistics of Zodiac Aerospace equipment. These full-service offers, which provide customers with the manufacturer's quality guarantee, are also intended to meet specific needs. This is the case for our Cabin Care offer, an area in which the Group holds

<sup>&</sup>lt;sup>10</sup> Maintenance, Repair and Overhaul



CENTERED ON OUR CLIENTS, OUR NEW ORGANIZATION IS INTENDED TO IMPROVE THE QUALITY AND RELIABILITY OF OUR SERVICES AND BRING US CLOSER TO OUR CUSTOMERS.

**Christophe Bernardini** CEO, Zodiac Aerospace Services



In April 2014 Zodiac Aerospace won the Bombardier In-Service Supplier Top Achievement Recognition (STAR) Award for "Most Improved" supplier.

world-leading positions. We also provide airlines with daily technical support for more efficient use of the Group's equipment. This support involves engineer site visits, acting on customers' feedback, and continuously monitoring the reliability of our equipment in operation and providing maintenance. We also issue regular updates to technical documentation and hold technical training sessions for airline operators.

# **OPERATIONAL EXCELLENCE**

# *A Group* DYNAMIC

Efficiency, anticipation and organization are the three improvement goals driving the Group-wide roll-out of the Lean management system. The approach focuses on improving operational excellence and customer service and is being adopted at 115 production and maintenance/repair sites on a decentralized basis. Leading the project are a hundred or so local Lean representatives, with customized, methodological assistance from some 20 Corporate team members.

# Fulfilling our commitments: a group requirement

The Corporate Lean team helps local departments and field-based Lean representatives establish action plans in line with the Group's strategy and, more importantly, with customer expectations. Customers expect us first and foremost to fulfill our commitments, i.e. offer them the high-quality equipment and services they want, within their deadlines. This requirement is further driven by the increasing size and complexity of the aerospace market, which often has long lead times and multiple stakeholders. The Group is fully committed to fulfilling its obligations across a broad range of products, from systems to cabin interiors and cabin equipment. Our commitment must be applied to all our products and we must be efficient in delivering it.

# Anticipation, dialogue and efficiency gains

Our role is to help our business units improve their operating performance and customer service. We have therefore made available a standard framework of dashboards and performance indicators. We individually assess and diagnose each site and offer training in topics such as workload organization, performance management, and problem analysis and solving. We also support initiatives aimed at taking more effective account of customer needs. For example, collaborative working groups have been introduced for certain products, whereby sales representatives and development and manufacturing teams dialogue on a regular basis, allowing us to anticipate potential issues and resolve them at the very earliest

development stage. This represents a cultural shift in our work methods. In parallel, some divisions and business units are starting to help suppliers improve their performance. We are also participating in the GIFAS<sup>11</sup> Industrial Performance project targeted at 400 SMEs, and four of our sites have each committed to working with some 30 suppliers with the support of an independent consultant.

#### Moving at the right speed

Today all sites have a road map and are making progress, albeit not all at the same speed. We are therefore providing more support to those that are lagging behind, performing more in-depth diagnostics, putting even more effort into sharing the results with field-based teams and convincing

<sup>&</sup>lt;sup>11</sup> The French Aerospace Industries Association

666 WE KNOW WE CAN COUNT ON TWO KEY LEVERS FOR GREATER BUY-IN: FIRST THE COMMITMENT AND SUPPORT OF GROUP MANAGERS, AND SECOND THE MOTIVATION OF OUR TEAMS AND THEIR ONGOING EFFORTS TO ACHIEVE THE HIGHEST STANDARDS. 99

#### **Carine Vinardi**

Executive Vice-President, Group Lean



them to get on board. We know we can count on two key levers for greater buy-in: first the commitment and support of Group managers, and second the motivation of our staff and their ongoing efforts to achieve the highest standards.

For its third Suppliers Day, held at Montreuil in July 2014, Zodiac Aircraft Systems hosted around a hundred of its European strategic suppliers. It was an opportunity to engage them in the challenges and goals of Zodiac Aircraft Systems, which buys 50% of what it eventually sells as an end product. Four key themes were developed during this highly informative and productive event: (i) commitments and results; (ii) guality, cost, delivery (QCD) obligations; (iii) supplier innovation; and (iv) the Air Supply e-business portal project. The day concluded with the presentation of the Zodiac Aircraft Systems Supplier Award to MGB. In 2015 the event will be broadened to include U.S. suppliers.

## OUR ACTIVITIES





# PERFORMANCE is our driving force

Inherent to its continued growth, the Zodiac Aerospace Group offers airlines and aircraft manufacturers equipment and solutions to improve cabin comfort, flight safety and aircraft performance.

Its five customer-centric business segments strive to better serve their customers through a process of ongoing improvement, focused on operational performance, innovation, and stronger internal synergies. Within their respective specializations, the business segments all contribute to boosting the performance of both the Group and their customers.

# ZODIAC AIRCRAFT SYSTEMS

HEAT

SEC

Touchscreens are being installed in cockpits for non-critical systems, such as the passenger communication system.

ANTI-ICI

WING

ENG

UCH

ERNATE

€1,297.4 MILLION

31.1 % Share of group revenue

6,741 EMPLOYEES WORLDWIDE

14.5% OPERATIONAL MARGIN\*

# $\in 188.0$ million

CURRENT OPERATING INCOME\*

\* Excluding IFRS 3 impact

#### **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



PRINCIPAL SITES  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; Bellevue, WA; Brea, CA; Carson, CA; Bellevue, WA; Brea, CA; Carson, CA; Redmont, WA) • Mexico (Chihuahua)
Tunisia (Soliman) • Morocco (Rabat, Tiflet)



## KEY CAPACITY TO ANTICIPATE OUR CLIENTS' EVOLVING NEEDS AND BE FLEXIBLE IN OUR RESPONSE

With a rise of 17.7% in revenue and 11.8% in our operational margin (excluding IFRS 3), we have had an outstanding year, combining strong organic growth (+14.3%) with the contribution from the companies we have acquired.

We owe this performance primarily to the motivation and unstinting work of our teams to improve their operational performance. It is also the result of adapting our own and our suppliers' capacities to the increased production rates at Boeing (B787, B737), Airbus (A350 XWB) and in the business aviation sector. The goal is to better anticipate our customers' needs and always provide improved service. The start-up of the wiring and seat actuator businesses in Chihuahua to supplement the Soliman plant, the extension of our Niort plant, and the



optimization of our base of suppliers, with whom we work jointly in development, are just a few examples.

Constantly seeking to improve our products and services to customers, our focus on progress fosters innovation, which is a lever for competitiveness and the key to future systems. Our research is conducted with the support of the French government, the DGAC<sup>12</sup> and the CGI<sup>13</sup> and focuses on onboard connectivity, inerting systems and more electric aircraft. In this area, we are pursuing our research on the fuel cell battery, Li-lon batteries and management of the onboard electrical power network. We are also participating in the Airbus Group Innovation E-Fan all-electric aircraft project. Altogether, this has been a demanding and ultimately successful year.

CONSTANTLY SEEKING TO IMPROVE OUR PRODUCTS AND SERVICES TO CUSTOMERS, OUR CONTINUOUS FOCUS ON PROGRESS FOSTERS INNOVATION, WHICH IS A LEVER FOR COMPETITIVENESS AND THE KEY TO FUTURE SYSTEMS.

Yannick Assouad CEO, ZODIAC AIRCRAFT SYSTEMS
World leader in onboard electrical power distribution systems, the Group is expanding its manufacturing capacities and has commissioned a new building at its site in Niort, France. Power distribution panel assembly line. \*\*\*\*\*

00000



## RAVE<sup>™</sup> CENTRIC IFE, the best in-flight entertainment EXPERIENCE

## EXTENDED FUNCTIONALITIES

Offering on-demand audio/video, interactive games and GPS, this is a complete IFE system, with a high-resolution touch screen integrated into the seat back. From the airlines' point of view, the modular system can be configured to suit their cabin offerings and is available for new aircraft or those already in operation.

## RELIABILITY

Each seat is independent so passengers will not be inconvenienced by the failure of a central server. Data storage on SD cards increases the reliability of individual screens, which are detachable and can be replaced in-flight by the crew.

## LIGHTNESS

ANG

HBO

TED Take

Lightweight design and low-power consumption reduce airlines fuel expenditure. The system is also easy to install and manage.





Winner of the Best In-Flight Entertainment System at the Aircraft Interiors Middle East Fair in Dubai February 2014.

## **RAVE<sup>TM</sup> Centric IFE** 21 airline customers

**139** aircraft equipped at the end of August 2014

## 4 complementary offers

 RAVE<sup>™</sup> Centric – integrated IFE system

 RAVE<sup>™</sup> Wireless – wireless IFE solution streaming to portable electronic devices (phones, computers, tablets)

 RAVE<sup>™</sup> Cellular (voice, SMS, data services)

 RAVE<sup>™</sup> Broadband for computer or tablet connection

RAVE<sup>™</sup> Wireless adds connectivity to IFE for streaming films, music, games and services to passengers' Portable Electronic Devices (PED). It can be combined with the integrated RAVE<sup>™</sup> Centric System, in which case passengers can use both screens at the same time, e.g. the seat-back screen to watch the film and their own PED to order a drink.

## AN EVEN MORE FLEXIBLE SUPPLY CHAIN

In Chihuahua, Mexico, production of cable harnesses for IFE systems commenced in 2014 and operators were trained in spring 2014. The Group's development in this buoyant market is strengthened by this new highly automated production line which will produce up to 1,200 cable harnesses by the end of 2015.

#### RAVE<sup>™</sup> WIRELESS: FIRST SELECTIONS

The South American airline LATAM and Canada's Air Transat have both chosen the RAVE<sup>™</sup> Wireless IFE solution, LATAM to equip its Airbus A320 fleet and Air Transat to upgrade nine of its Airbus A310–300. Air Transat, a longstanding customer of the Group, already deploys the RAVE<sup>™</sup> Centric solution for business class on its Airbus A310 and all classes of its Airbus A330 fleet.

## **A TURNKEY SOLUTION**

For the renovation of its Airbus A330-200 fleet, Gulf Air ordered Zodiac Aerospace's 5751 economy class seat integrating the Centric RAVE<sup>™</sup> system. Each seat is also equipped with a USB port to enable passengers to recharge their electronic devices.

Roche-la-Molière

**FUEL** PUMP

## STRONG GROWTH

Zodiac Aircraft Systems has made further strong progress driven by the rise in production rates of previously acquired programs and by the operational performance of all its divisions. New developments have been steadily rolled out and its offerings have been supplemented with two acquisitions: Pacific Precision Products for oxygen systems, particularly in business aviation, and TriaGnoSys, a specialist in onboard connectivity for IFE.

#### Sustained development in all divisions

The teams have continued to develop in-flight entertainment systems, particularly RAVE<sup>™</sup> Wireless, and connectivity with Ka/Ku-band high-speed satellite. The highlight of the year was the successful qualification of primary and secondary electrical power distribution for the Airbus A350 XWB and other equipment (external lighting, indicators and the lavatory water system) supplied by Zodiac Aircraft Systems. Developments also continued for Embraer's E2. Dassault Aviation's Falcon 5X and Bombardier's G7000. Three business jets with Group systems and equipment onboard conducted their first flight during the year: Cessna's Citation Latitude, HAC's Honda Jet and Bombardier's Leariet 85.

#### **Electrical systems**

The division saw considerable activity related to the rise in production rates of the Boeing B787 and certification work for the Airbus A350 XWB electrical power distribution system with commencement of its production. It also worked on the electrical energy management system for the E-Fan, for which Lithium-Ion batteries are currently being







**Dassault Aviation's Falcon 5X** will have a number of Zodiac Aircraft Systems' products on board: primary and secondary electrical power distribution, fuel circuit gauges and equipment, interior and exterior lighting, passenger and pilot oxygen, chemical lavatories, telescopic tubes for deicing wing leading edges, and pilot seats supplied by Zodiac Seats.

developed. The division stepped up the R&T work conducted with the CEA on the fuel cell demonstrator for aeronautical application and with CORAC on the GENOME demonstration platform, which it is jointly lead by Airbus.

#### **Controls**

The step change in the production of the Boeing (B787) and Airbus (A350 XWB and A400M) programs as well as the surge in business aviation (Gulfstream 650) contributed to the division's rapid growth. Additionally, the division was selected by Irkut for the entire cabin control system for its MC-21, and by Airbus for the electronic cabin video-surveillance system for the A380. It will also provide fuel gauging systems for Embraer's E2 and Dassault Aviation's Falcon 5X and 8X. New deicing and ice-detection systems were tested in an icing wind tunnel, making good progress in the work toward the qualification and maturity of this equipment.

#### **Fluid management**

In addition to numerous deliveries of fuel circulation and inerting systems for all programs, we have been developing systems for regional (Embraer's E2) and business aircraft (Dassault Aviation's Falcon 5X and 8X). A major feat this year was the signing of a contract for the supply of bleed air ducts for the LEAP<sup>14</sup> engine. Developed by Snecma and General Electric, this engine is destined for the future generation of single-aisle commercial aircraft, specifically the Airbus A320neo, Boeing 737 Max and Comac C919. Assessment also commenced on additive

manufacturing processes as part of the Open Rotor project.

#### Cabin & cockpit systems

Already in use on regional aircraft (Embraer's ERJ, Bombardier's CRJ), the new LAVOX<sup>™</sup> oxygen solution for lavatories obtained FAA<sup>15</sup> certification in 2014, paving the way for future contracts in commercial aviation. Another advance was the selection by Airbus of the extended passenger oxygen system for the A330. The system, which provides 60 minutes of oxygen flow, offers significant weight reduction and better operational flexibility for flights over the Himalayas and at high altitude.

Deliveries have begun of the new line of lightweight, energy-efficient cabin interior lighting to Delta for the refurbishment of sixteen Boeing B757-300 and -200 aircraft. »

<sup>&</sup>lt;sup>14</sup> Leading Edge Aviation Propulsion

<sup>&</sup>lt;sup>15</sup> Federal Aviation Administration



Sales of seat actuators increased both for external seat suppliers and for Zodiac Seats. Manufacturing began at the Chihuahua plant to supplement production at Soliman.

Meanwhile, the LED exterior lighting system has been selected by Airbus for the A350 XWB and is in the process of obtaining certification for retrofit solutions on aircraft in operation.

#### Water & waste systems

Activity was boosted by deliveries of lavatory systems to Boeing for its B787, to a Chinese rail operator, and by increased production of tanks and, since 2014, toilet systems at the Chihuahua plant. Now more lightweight thanks to its composite-material tank, more reliable, easier to maintain and much more water-efficient, the new Revolution<sup>™</sup> Toilet assembly has been selected by Swissair for the refurbishment of its Airbus A320 and A321 fleets. Embraer, a longstanding customer, has also selected it for its future E2 as has COMAC for its C919. The division will also supply the waste management system for the E2. Another commercial success is the contract signed with several Boeing B787 VIP-configuration fitting centers for the design of water and waste management systems.

#### **Data systems**

With the acquisition of TriaGnoSys, the division has scaled up its developments in onboard connectivity (in-flight internet access, GSM). In partnership with Viasat and Global Eagle, it has

developed a connectivity offering using Ka-band (used mainly for satellite internet) and Ku-band. It has also obtained support from the French civil aviation authority to develop its own Ka-band terminal. Another advance in the area of data acquisition and recording is the delivery to Airbus, in preparation for the first flight of the A320neo, of XMA data-acquisition modules and a C-band link system that will transmit data to a station on the ground. The XMA modules are extremely compact and have been selected by Boeing for in-flight tests on its B737MAX as well.





Integration bench for aircraft water and waste systems at the Zodiac Water & Waste Systems division (Carson, California).

Fuel gauges are increasingly lightweight thanks to their dual tubes made of composite tubes. The composite tube digital manufacturing plant at Plaisir.

## **ZODIAC AEROSPACE SERVICES**

## THE LAVOX<sup>™</sup> SOLUTION – A RETROFIT OFFER POISED FOR EXPANSION

With U.S. regulations requiring the gradual removal of chemical oxygen generators in lavatories, Zodiac Aerospace Services is creating a retrofit offer based on the new LAVOX system developed by the Group. American Airlines has selected it for its Boeing 737NG and United for its Boeing B757, B777 and Airbus A320 fleets. United has also commissioned Zodiac Aerospace Services to upgrade all the lavatories in its fleet.



## ZODIAC AEROSAFETY

Zodiac AeroSafety designs and manufactures systems for onboard safety, rescue, and equipment protection.

8

000000

# €574.8 MILLION

13.8% Share of group revenue

4,391 EMPLOYEES WORLDWIDE

19.5% OPERATIONAL MARGIN\*

## €112.0 MILLION

\* Excluding IFRS 3 impact

## **5 DIVISIONS**

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



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



## SUPPORTING OUR CUSTOMERS' DEVELOPMENT: "WORKING TOGETHER EFFECTIVELY"

We are enthusiastic about maintaining our leading positions in the businesses that have formed the core of our activities for many decades. Far from becoming complacent, this success flows from our creativity, from our constant quest for new solutions and from our close relationship with our customers. It relies on the talent of our teams, their expertise and their commitment to clear objectives. This was once again illustrated in 2014, with excellent operational performance and a substantial improvement in our capacity to serve our customers better via Zodiac Aerospace Services. We are also continuing to successfully develop and prepare for the commissioning of new

products for programs that will significantly boost our activities in the coming years. We are increasing our efforts in technological innovations, especially where new materials are concerned. At our sites, especially in South Africa, Mexico and Tunisia, we are keeping up our high level of industrial investment in order to better meet the increasing production of these new programs. Our success is also due to our close relationship with our customers as we focus on solutions together. That success is based on our ongoing leadership, realism and efficiency in collective action to achieve set objectives, i.e. *working together effectively*.



OUR MISSION IS TO HELP SAVE LIVES AND PROTECT EQUIPMENT BY DEVELOPING AND DELIVERING IN-FLIGHT AND ON-GROUND SAFETY EQUIPMENT TO CIVIL AND MILITARY AERONAUTICAL MANUFACTURERS AND OPERATORS.

**Gilles Debray** CEO, ZODIAC AEROSAFETY

The Soliman plant in Tunisia goes from strength to strength as it exploits new production capabilities that include elastomers, flexible tanks, and composites.



## EMASMAX<sup>®</sup>, *high-tech* EMERGENCY ARRESTING SYSTEMS

0000000

## ADDITIONAL AIRCRAFT PROTECTION

00105

EMASMAX<sup>®</sup> is composed of cellular cement blocks that absorb kinetic energy and safely decelerate and stop an aircraft in a controlled fashion in the event of runway excursion (which is a common cause of accidents in commercial aviation).

## INCREASED PASSENGER SAFETY

Since the first installation in 1996, EMASMAX<sup>®</sup> has safely stopped nine aircraft (ranging from a Cessna Citation to a Boeing B747) in real emergency overrun situations, with the safe evacuation of several hundred people.

## A FLEXIBLE SOLUTION TO RELIEVE SPACE CONSTRAINTS AT AIRPORTS

EMASMAX<sup>®</sup> offers airports with a limited RESA<sup>16</sup> a solution that provides safety while reducing the area required for a runway end safety area. The system also offers shorter installation times, reduced maintenance and minimal service disruption.

<sup>16</sup> Runway End Safety Area



**Over 100 variables** are integrated into the computer model used to simulate the interactions between the EMAS system and range of aircraft. Developed over the last 20 years by Zodiac Arresting Systems in conjunction with the FAA, the model also integrates unique data from each potential installation site.

A total of 22,000 EMASMAX<sup>®</sup> blocks were used in 2014 to equip the ends (4 RESAs) of two San Francisco airport runways running between San Francisco Bay and Highway 101. The project was completed in two months.

89 EMAS systems worldwide

#### **50** airports equipped in the USA

airports equipped in Norway, Spain, China and Taiwan

As well as being a major player in onboard safety, Zodiac AeroSafety is also involved in safety on the ground. This is a steadily growing market in concert with the increase in international air traffic.

Certified by the FAA<sup>17</sup> and compliant with ICAO<sup>18</sup> recommendations, Zodiac AeroSafety's EMASMAX® systems are already in action at 54 airports, giving the division a head start when it comes to responding to new opportunities in Europe, where regulations are changing, and Asia.

#### A PARTNER FOR THE CHINESE MARKET

Zodiac AeroSafety has created a joint venture with a major player in airport safety in China, where it is consolidating its position. The EMAS regulation is being put in place in the country and airport construction is expected to double within the next ten years, especially in mountainous regions. The market is estimated at 30 airports, and up to 50 EMAS systems could be installed over the next fifteen years.

#### TECHNICAL PERFORMANCE CONSTANTLY ADVANCING

New-generation materials and cement blocks are more homogenous, leading to more gradual aircraft deceleration and thus greater passenger safety. Other strengths of these products include their resistance to environmental conditions and much lower maintenance requirements.

## **A PROACTIVE SERVICE**

Zodiac Arresting Systems works very closely with customers to address their requirements, planning the manufacture and installation of EMASMAX<sup>®</sup> blocks at an early stage.



## CONTINUOUS GROWTH, *stronger industrial* ORGANIZATION

With the development and industrialization of numerous programs, and strong advances in spare parts and repairs, Zodiac AeroSafety has had a good year, boosted by the operational performance of its teams and the adaptation of its industrial organization in line with developments in its markets, leading to greater customer satisfaction.

## Numerous developments to support future activities

2014 was a year of significant development, gualification and preparation for the commissioning of equipment for a number of previously won programs. These include evacuation slides and interconnect systems for the Airbus A350 XWB, slides for Irkut's MC21, slides and landing-gear harnesses for Bombardier's CSeries, and cable-protection harnesses for the UTAS nacelles on the Boeing B787. Work on helicopter programs was conducted in a collaborative way with order specifiers, notably the flexible tanks and emergency floatation for Airbus Helicopters' Bell 429 and X4. Meanwhile, the development of cascades on the UTAS nacelles for the Airbus A320neo successfully passed its critical design review. In addition, Zodiac AeroSafety was selected by Sikorsky for the flexible tanks for its CH53K military helicopter and by Airbus for evacuation slides for its A321 neo. Another area of progress was the very high level of

activity in spares and repairs across all product lines.

#### **Operational performance**

In conjunction with the deployment of Lean Management methods, operational performance has continued to improve. In particular there has been a notable recovery at the Saint-Crépin plant. The teams are motivated and processes are more efficient, and the same is true for Caudebec for flexible tanks, taking delivery punctuality to 93.6% for all sites. Customers appreciate the progress we have made. For example, Zodiac Interconnect was singled out in France by Snecma for having met all its delivery times without any compliance issues, and in the UK by Fokker-Elmo which crowned it Best Supplier 2013.

## Organization in tune with market developments

We are continuing to rationalize production, transferring to Chihuahua the manufacture of slides for the Airbus A320 so that

the Cognac site can specialize in helicopter rafts and emergency floatation. Increasing level of production of the Chihuahua plant for electrical interconnection and Soliman for elastomers and composites is also enabling us to be more competitive. Other beneficial initiatives include the use of simulation methods to reduce development costs, for example for slide deployment tests or emergency arrest simulations, and a determined focus on innovation such as new-generation deicers installed on Bombardier's Dash8, powder generators replacing pressurized gas for rafts and slides, and composite tubes integrated in fuel systems.



**Cable-protection** harnesses for the Boeing B787's UTAS nacelle are manufactured at Chihuahua.



#### The Airbus A350 XWB slides

have been certified following tests conducted at Zodiac AeroSafety's Belmar site and during flight trial procedures at Toulouse. This aircraft obtained type certification in October 2014, enabling it to embark on operational service and ramp up production. The slides are manufactured at the Chihuahua plant.

#### ZODIAC AEROSPACE SERVICES

## RECORD SALES

With orders from Lufthansa for 170 evacuation slides for its Airbus A320 and 100,000 lifejackets, from United for 300 life rafts for its Boeing 737NG fleet, and from Heli One for additional tanks for its Sirkorsky \$92 helicopters, sales reached a record level in 2013/2014. Another major contract was for the retrofit of 224 evacuation slides for Saudi Airlines' **Boeing B777 fleet.** 



# AIRCRAFT INTERIORS

Complete cabin interiors, onboard galleys and inserts, and passenger and crew seats: AIRCRAFT INTERIORS specializes in all cabin elements, offering floor-to-floor integrated, optimized solutions.





# €2,302.3 MILLION REVENUE

55.1% SHARE OF GROUP REVENUE

18,427 EMPLOYEES WORLDWIDE

12.4% OPERATIONAL MARGIN\*

## €285.5 MILLION CURRENT OPERATING INCOME\*

\* Excluding IFRS 3 impact

Zodiac Cabin & Structures designs and manufactures a complete range of products and provides integration, design, and product support services. Products include fully integrated cabin interiors, lavatories, partitions, liners, stowage bins, passenger service units, and composite materials.

CTURES

# €692.9 MILLION

16.6% Share of group revenue

7,167 EMPLOYEES WORLDWIDE

## **7 DIVISIONS**

ZODIAC OEM CABIN INTERIORS ZODIAC BUSINESS AIRCRAFT CABIN INTERIORS ZODIAC AIRLINE CABIN INTERIORS ZODIAC ADVANCED COMPOSITES AND ENGINEERED MATERIALS ZODIAC NORTHWEST AEROSPACE TECHNOLOGIES ZODIAC GREENPOINT (AUGUST 31, 2014) EZ AIR (50%)



PRINCIPAL SITES  United States (Bellingham, WA; Everett, WA; Kirkland, WA; Marysville, WA; Denton, TX; Garden Grove, CA; Huntington Beach, CA; La Palma, CA; Ontario, CA; Santa Maria, CA; Cypress, CA; Bozeman, MT)
 Canada (Montreal) • Brazil (Jacarei, Sao Jose dos Compos)
 Mexico (Tijuana) • France (Colomiers) • UK (London)
 Germany (Hamburg)
 Tunisia (Soliman)

ooc





## HELPING OUR CUSTOMERS ACHIEVE OPTIMAL BALANCE BETWEEN SPACE AND EFFICIENCY

Our airline and aircraft OEM customers face a unique challenge – how to increase the number of passengers on each airplane while still providing a safe, comfortable, and more enjoyable flying experience. At Zodiac Cabin & Structures, we embrace this as our central mission – developing and certifying innovative aircraft interiors which do not only make the most efficient use of precious cabin space, but make them more appealing and spacious for every passenger. We are meeting this challenge in a variety of ways, such as providing larger overhead bins that pivot out of the way, speed boarding time, and provide "a space for every bag". We also have developed flexible monument footprints. which allow airlines to optimize their interior

configurations for their specific routes. This helps ensure we assist our customers in finding the correct balance between space and efficiency.

To realize this vision, we are also making major investments in our development organization in the United States as well as in our production capacity in Mexico, expanding our operations and increasing investment in R&D projects to make the cabin quieter, more comfortable, and also more economic. At Zodiac Cabin & Structures – we are not only onboard the new generation of aircraft now entering service, we are already focused on creating the next big leap forward in interiors and structures.

666 WE EMBRACE THIS AS OUR CENTRAL MISSION – DEVELOPING AND CERTIFYING INNOVATIVE AIRCRAFT INTERIORS WHICH DO NOT ONLY MAKE THE MOST EFFICIENT USE OF PRECIOUS CABIN SPACE, BUT MAKE THEM MORE APPEALING AND SPACIOUS FOR EVERY PASSENGER.99

Production at the recently expanded plant in Tijuana, Mexico, has diversified into complex composite materials and thermoplastic parts and assemblies.

1



## INNOVATIVE SPACE INTERIOR SYSTEM: *ahead of the game in modular,* OPTIMIZED CABINS

Better use of space at the rear of the aircraft thanks to optimal galley and lavatory layout. Up to two extra rows of seating in the space freed up.

Larger luggage bins

for a better travel experience for passengers and smoother operations for airlines.





Current A320 configuration

Innovative Space Interior System A320 configuration



94cm extra length freed up in the cabin 6 to 12 additional seats

## **45kg lighter**

than a solution with separate galley and lavatories

Zodiac Cabin & Structures has added the AftComplex to the product family of its new Innovative Space Interior System. This single unit combines two lavatories and a galley and is located aft of the aircraft door. The solution frees up space for extra legroom and seating and also features a modern interior, such as touchless faucets and LED lighting.

#### LESS WEIGHT, LESS COST

With AftComplex, some components are shared between galley and lavatories, such as the water heater and central partition. This reduces both cost and weight.

#### MORE COMFORTABLE, MORE PROFITABLE

By adding a row of seats and increasing legroom in seven rows, AftComplex reduces the carrier's per-passenger cost at the same time as increasing passenger comfort.

#### STRONG SALES AND A PARTNERSHIP WITH AIRBUS

Following strong sales of AftComplex in the aircraft cabin retrofit market where the first deliveries have already started, we have entered into a partnership with Airbus to develop SpaceFlex v2, a unit comprising a galley and two lavatories. It will be installed in the entire Airbus A320 family.



Strong SALES

Zodiac Cabin & Structures continues to expand, producing highly innovative, modular solutions that optimize the use of onboard space, improve in-flight service and help boost customer profitability. The acquisition of Greenpoint Technologies extended its leadership in the field of VIP aircraft cabin interiors.

#### **Retrofitting: a dynamic** driven by innovation

Zodiac Cabin & Structures has been particularly active in the retrofit market. This was due partly to the full integration of NAT<sup>19</sup>, which has strengthened the division's offer and given it certification competency, and partly to the success of the Innovative Space Interior System, the first elements of which – particularly the pivoting luggage bins offering increased stowage capacity – have been delivered to Sky Airline and Cathay Pacific for the retrofit of their Airbus A320 aircraft. Meanwhile, more than 1,000 AftComplex and SmartLavs lavatories are in the order book for major airlines in North America, Europe and the Asia-Pacific region. Zodiac Cabin & Structures has also been selected by another large



carrier to upgrade the entire cabin interior of its Airbus A319-320, CRJ-700 and Boeing B757 aircraft.

## Deliveries for programs entering production

Zodiac Cabin & Structures is keeping pace with the ramp-up in production of new programs, delivering complete cabin interiors to Bombardier for its CSeries, lavatories to Airbus for the A350 XWB for Oatar Airways (the program's launch customer), and the first interior panels to Boeing for the U.S. Air Force's KC-46 tanker. New orders were also received from Boeing for the cockpit door of the B737MAX and door frame of the B787-9, and from Embraer for the supply of EZ Air's complete interior for the E2, Embraer's next-generation regional jet.

## Stronger positioning in business aviation

A long-time supplier to Bombardier, Zodiac Cabin & Structures has

<sup>19</sup> Northwest Aerospace Technologies



An inspection robot, with a magnification camera and defect recognition software, photographs and scans large, complex composite parts to detect imperfections that are invisible to the naked eye.

strengthened its position in business aviation with contracts to supply interior cabin components to Dassault Aviation for its Falcon 5X and 9X aircraft and Gulfstream for the G500/600. A contract has also been signed with Bombardier to supply the complete interior of its new Challenger 650.

## Ongoing investment and development

To keep pace with the rise in production of the Boeing B787, Bombardier's CSeries and the Airbus A350 XWB, Zodiac Cabin & Structures has added 30,000 m<sup>2</sup> to its plant in Tijuana and reorganized its sites in California and Marysville to accommodate new programs. Heavily invested in preparing for the future, its teams have launched the "quiet cabin" project, which features a combination of absorbent acoustic materials and cutting-edge analysis and simulation methods, and the "Dynamic Modular Lavatory" project, which focuses on the mass production of more modular, customized lavatories. There is also increased application of cutting-edge tools, inspection robots, and layered composites to boost competitiveness, build larger parts and improve quality.



The lavatories on the Airbus A350 XWB are available with more than 100 options.

#### Robust, flexible, well-designed equipment, which improves onboard service and enhances the passenger's enjoyment of travelling.

23

YS JIPMEN

# €498.2 MILLION

11.9% SHARE OF GROUP REVENUE

4,161 EMPLOYEES WORLDWIDE

## **3 DIVISIONS**

ZODIAC GALLEYS (GALLEYS, CABINETS, PARTITION WALLS, CREW RESTS) ZODIAC GALLEY INSERTS (ELECTRICAL GALLEY INSERTS) ZODIAC ROTABLE EQUIPMENT (TROLLEYS, TRAY CONTAINERS, CARGO CONTAINERS)



PRINCIPAL SITES France (Colomiers)
Germany (Burg, Hamburg, Herborn) 

The Netherlands (Alkmaar)
Czech Republic (Pilsen)

United States (Huntington Beach, CA; Los Angeles, CA; Sterling, VA) 

Thailand (Bangkok, Lamphun)
Tunisia (Grombalia)





## OPERATIONAL EXCELLENCE AND CUSTOMER SATISFACTION: INCREASINGLY SOPHISTICATED REQUIREMENTS

We are structured into three divisions to make our organization more understandable to customers and partners – aircraft manufacturers and airlines – and to increase our synergies. The objective upheld by all our teams is to deliver the utmost satisfaction to our customers.

Customers are therefore the focus of our organization, we use our operational excellence for their benefit, and we are ratcheting up the deployment of our Lean processes in all our production and development. Our teams are enthusiastic and competent, and make a concerted effort to understand our customers' requirements, increase the durability and competitiveness of our products, strengthen the quality of our services, and devise innovative solutions which improve the added value of our equipment once installed on board. Their ambition is to be the benchmark for aircraft manufacturers and airlines. We design and produce complete solutions for our customers, constantly fine-tuning them and improving their operational effectiveness. With unique opportunities for reconfiguration and customization, we contribute to increasing the re-use value of aircraft. We work with our colleagues at Zodiac Seats to improve passenger comfort without reducing the functionalities and services our customers require. Design, quality and longevity are the hallmark of our offer. Combined with continuously improving our efficiency and the appropriateness of our product offer, these strengths are the best guarantors of our leadership.



GLOBAL LEADER IN THE SECTOR, WE ARE IN TUNE WITH OUR CUSTOMERS AND PROUD TO CONTRIBUTE TO ADDING VALUE EVERY DAY AND DEVELOPING TOMORROW'S PRODUCTS.

World leader for galleys, Zodiac Galleys & Equipment manufactures top-of-the-range units at its Herborn plant in Germany.



## G5 GALLEY, pre-equipped and ready FOR SERVICE

## FLEXIBILITY

The G5 can be customized at the order stage and reconfigured throughout the aircraft's lifetime. Like all other monuments, it can be adapted to airlines' evolving onboard service requirements.

(1)

1.00

## **ERGONOMICS**

18

600

With its optimized workspace and rounded shapes for greater accessibility and safety, the G5 improves efficiency, ergonomics and working comfort for cabin crew.

## DESIGN

H

Stylish, lightweight and contemporary, the G5 boosts the airline's image and enhances passengers' travel enjoyment.



With airbags integrated into the bulkhead, the G2 galley makes best use of cabin space while ensuring the safety of passengers seated in the front row.

T&U shaped galley with a trolley elevator system.

**3,683** galleys delivered in 2013/2014

## 4 manufacturing sites

Huntington Beach, CA in the United States Pilsen in the Czech Republic Herborn in Germany Grombalia in Tunisia (since March 2014)





Zodiac Galleys & Equipment is developing new types of galleys that will reduce the number needed on board for the same level of comfort and service. Another innovation presented at the Hamburg show in 2014 was the T&U shaped galley with a trolley elevator system to make full use of vertical space. All these solutions make best use of cabin space and generate high added value for airlines.

#### **GREATER PUNCTUALITY**

The deployment of Lean management methods, the reorganization of production and supply flows, and the training of employees are behind the focus on operational excellence for maximum customer satisfaction at Huntington Beach in the United States and Pilsen in the Czech Republic. The result is a punctuality rate of 100% for all deliveries.

#### **AN ADDITIONAL PLANT**

The Grombalia plant in Tunisia went into production in March 2014. It will contribute to supplying all galleys and closets for the Airbus A320 from 2015, as stipulated in the SFE<sup>20</sup> agreement signed in 2011. That agreement provides for all aircraft in the A320 family to be equipped as standard with these modular galleys.

#### HAUTE COUTURE AND READY-TO-WEAR COLLECTIONS

Zodiac Galleys & Equipment offers both mass-produced lines and individual products that meet its customers' specific requirements and differentiation needs. The Herborn site in Germany is the specialist in these customized products.



## A YEAR of consolidation

Zodiac Galleys & Equipment has consolidated its positions and is concentrating on growth by motivating its teams to improve their industrial and commercial performance. Focused on the competitiveness of the service rendered to clients, this progressoriented dynamic is backed by a new three-division organization: Galleys, Galley Inserts, and Rotable Equipment.

## A commercial dynamic that benefits Galleys

Sales have grown at a steady pace, especially for single-aisle aircraft. Particularly notable is the 30% increase in sales to Airbus for its A320 under the SFE<sup>21</sup> contract and numerous other new contracts, including a first order for a Boeing 737MAX by Nokair, a Thai low-cost carrier.

After delivering equipment to Etihad for its fleet of Airbus A380, Zodiac Galleys was selected by the airline for other programs starting in 2016. The division also enjoyed commercial success with the aft galley/lavatory complex at Swissair, Lufthansa and Delta and retrofit solutions for SAS, Qatar Airways and Etihad for their Airbus A330 aircraft.

Zodiac Galleys has continued to develop a twin-aisle version of the MAXFlex galley and, via a further

partnership with Airbus, for the SpaceFlex v2 system. Designed for the A320 family, this incorporates a galley and lavatory, and offers the possibility of adjoining an additional two rows of seats in the cabin.

## Preliminary success for new lines of inserts

Electrical culinary equipment (galley inserts) also performed impressively, in line with forecasts. As well as contracts with Swissair, Lufthansa, Singapore Airlines, Nokair and Transaero, contracts were won in business aviation. a fast-growing market, with Bombardier's Challenger 605 and 350, and the Bombardier G7000/8000 and Gulfstream P42. Two new lines on the market, Concert<sup>™</sup> and Symphony<sup>™</sup>. saw their first sales. The Concert™ suite, which reduces the weight of a twin-aisle aircraft in standard



**250,000 passengers** served daily from the Hybrite trolley, leader in the lightweight-trolley market.

<sup>&</sup>lt;sup>21</sup> Supplier Furnished Equipment



configuration by 75kg, gained qualification from Boeing, while Symphony<sup>™</sup> received a Reddot Design Award honourable mention in 2014.

Zodiac Galley Inserts has invested heavily in its organization to improve its competitiveness, foster synergies and economies of scale, and pool expertise and development resources.

## Successful launches of featherweight containers

Despite the stability of the market, the Hybrite trolley continues to find favor with an increasing number of airlines including Etihad, Air Arabia, Viva Aerobus and Royal Jordanian. Another flagship product, the composite-material Hybrite container, 20% lighter than standard containers, was ordered by Emirates, Iberia and Qatar Airways as soon as it came onto the market.

The successful launch of the cargo container Herculight S saw United as its first client and the commencement of a fruitful cooperation with logistics operators CHEP and JETTAINER.

## **ZODIAC AEROSPACE SERVICES**

## AFTER-SALES SUPPORT FOR AIRBUS A320 GALLEYS

Under the SFE contract with Airbus, around thirty A320 aircraft emerge every month from Airbus production lines equipped with Zodiac Aerospace galleys. Zodiac Aerospace Services provides after-sales support. In the United States, its teams are also responsible for repairs to American Airlines' MOJO coffee machines.

# ZODIAC SEATS

As part of its Best & Beyond project to upscale, Air France is renovating the economy class of 44 of its Boeing B777 with the Z300 seat and has tested it on 2,500 customers and 1,000 commercial flight crew. It offers greater comfort for the passenger with more leg room, new functionalities and a larger screen. It also weighs 3kg less per seat than the existing seat, which will significantly reduce fuel consumption.

# €1,111.2 MILLION

26.6% Share of group revenue

7,099 EMPLOYEES WORLDWIDE

## **4 DIVISIONS**

ZODIAC SEATS FRANCE ZODIAC SEATS UK ZODIAC SEATS US ZODIAC AIRBAGS



PRINCIPAL SITES  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)





## AN UPGRADED OFFER, CUSTOMIZED SOLUTIONS

While pursuing its "Becoming One" global integration strategy, Zodiac Seats continues to win market share, both with major airlines and low-cost operators, particularly in fast-growing countries.

As the sector's world leader, we are continuing our developments for a number of new programs conducted with Airbus (A350 XWB, A320neo and A330neo), Boeing (B737 MAX, B787-9, B777-X) and regional aircraft manufacturers like Embraer (E2), Bombardier (CSeries), Mitsubishi (MRJ) and COMAC (ARJ 21).

Preparing for our future also means improving our operational performance and strengthening our industrial structure so we can respond better to the demands of our customers – airlines and aircraft manufacturers – who seek innovative solutions to maximize the available cabin space and make gains in terms of weight, ergonomics and aesthetics. We also focus on the passenger, who is always looking for comfort and cutting–edge products. Hence the importance of maintaining our technological lead so that we can continue to upgrade our products and services, constantly improve their quality, and offer each of our customers personalized, distinctive and more effective solutions.



666 A KEY ELEMENT IN PASSENGER COMFORT, FOR AIRLINES THE SEAT IS A MAJOR LEVER TO DIFFERENTIATE THEM AND MAKE THEM MORE ATTRACTIVE TO THEIR CUSTOMERS."

Christian Novella CEO, ZODIAC SEATS
An assembly line at the Gainesville plant in the United States, which manufactures the 5751 economy class seat.



## CIRRUS – *business class seat* MARKET LEADER

### **FULL ACCESS**

Configuration for direct access to the aisle for all passengers

FULL PRIVACY

Wrap-around structure for the seat shell, for a sense of privacy

THE 3 'F'S OF ABSOLUTE COMFORT

### FULL FLAT BED

The seat turns into a completely horizontal bed



**Cirrus, commercial and media success** In February 2014, the directors of Air France presented Cirrus, the new business class seat. Over 2,000 Cirrus seats will equip 44 of the airline's Boeing B777 aircraft as part of Air France's Best & Beyond project. The presentation was made at the Issoudun plant of Zodiac Seats France.



**Boeing has selected the Cirrus seat as a reference product** to upgrade its B787 while Airbus has added it to the ACS<sup>22</sup> catalog for the A350 XWB.





7,420 Cirrus seats sold by end of August 2014



The technology road map for Zodiac Seats is based around a number of themes: (i) comfort, involving research on ergonomics and adapting products to the passenger's morphology, the man-machine interface, and cabin ambience (lighting); (ii) lighter weight, involving research dedicated to integrating lightweight composite materials into the seat structure as well as tablets, elbow rests, and so on; (iii) integration, to maximize cabin space using systems developed by other Group entities, such as airbags integrated into seats and galleys.

### INTERNAL SYNERGIES FOR INNOVATION

The French and British teams at Zodiac Seats have shared their expertise – the French for business class and the British for first class – to develop Fusio. Unveiled at the Hamburg Aircraft Interiors Expo, where it attracted considerable interest from airlines, Fusio brings the refinement and elegance of first class to ratchet up the standard of business class.

### GROUP SYNERGIES FOR A COMPREHENSIVE SERVICE

For its customer Singapore Airlines, Zodiac Seats has constructed a joint maintenance offer with Zodiac Aerospace Services regarding all seats in the airline's Airbus A330 fleet. Zodiac Seats will upgrade the seats while Zodiac Aerospace Services in Singapore will be responsible for daily maintenance. The program will take two years, starting September, 2014.

### SYNERGIES WITH OUR CUSTOMERS FOR A TAILOR-MADE SERVICE

Continuing the work commenced with Air France to optimize cabin flexibility for its Boeing B777, the Zodiac Seats teams have come up with solutions that enable the business class seats to be removed and replaced by economy class seats in record time.



# SUSTAINED sales and GROWTH

Continuing its growth, Zodiac Seats has substantially overhauled its offer, always at the cutting edge of technology, and strengthened its industrial capacity to meet the needs of its expanding markets. Highlights of the year are the development of a number of "first in series" programs, major orders, and a sharp increase in deliveries in the second half.

#### New programs, new products

As one of the first Boeing B787-9 customers, Air New Zealand took delivery in summer 2014 of all the seats (5751, 5810, UCS3) for its first aircraft, swiftly followed by Virgin for its business class seats (UCS3). Another "first in series" program is the Airbus A350 XWB for which the certification aircraft has been equipped with the Z300 for economy class. Zodiac Seats has continued to deliver seats for the Boeing B777-300 for American Airlines for all seat classes (Flagship, Cirrus, 5751), for the Airbus A380 for Emirates (Skylounge and 5751), Lufthansa (first class) and Air France, and for the Airbus A330 for the South American (Avianca, TAM) and Chinese (China Eastern) airlines. Meanwhile the economy class Z85 seat, certified in 2014 for Boeing B737 and Airbus A320, was delivered to JAL in Japan. This helped JAL to win the Good Design Award for its economy class.

#### A very healthy order book

Numerous commercial successes were scored in 2013/2014, particularly for new long-haul aircraft – the Boeing B787 for Air China, Air France KLM and Virgin, and the Airbus A350 XWB for Cathay Pacific, China Airlines, Lufthansa, Singapore Airlines and Vietnam Airlines – consolidating the positioning of Zodiac Seats as world leader in the sector. In addition, for single-aisle aircraft, contracts were signed with low-cost

### **ZODIAC AEROSPACE SERVICES**

### AFTER-SALES SUPPORT IN THE UNITED STATES

The maintenance center in Atlanta provides after-sales support for Zodiac Seats, for example for US Airways for its Cirrus seats and Delta for its Cirrus and Vantage seats. Zodiac Aerospace Services has started to provide services to American Airlines for the Flagship2 seats on its Boeing B777 aircraft.



More than 50,000 Z85 seats sold to some thirty airlines. This success is primarily due to the certification in 2014 of this economy seat class for the Airbus A320 and Boeing B737 and the conclusion of three years' work.

carriers or fast-developing countries: Pegasus and Sun Express for the Z85. Zodiac Seats has also been retained as benchmark supplier by Embraer for all seats (Z85, Slim, Close comfort) on the E2, its new regional aircraft, and by Mitsubishi for all seats (Slim, Close comfort) on its MRJ that is under development. Another success in regional aviation is the Premium Economy seat for the ARJ 21 of China's Comac.

### Progress dynamic hinged on customer service

With the expansion of the Gainesville and Issoudun plants and the step change at the new manufacturing units in Soliman and Chihuahua, Zodiac Seats has increased its industrial capacity to respond to the surge of activity from aircraft manufacturers and play its part in the market's growth. Buoyed by the deployment of Lean Management tools, the operational performance of the teams has also made a significant contribution to improving the service rendered to customers.

# -4KG

The L3 seat weighs less than 4kg per seat, thanks to composite materials developed with Hexcel, the sector's global market leader.

### OUR COMMITMENTS



## TO A RESPONSIBLE DEVELOPMENT *is our commitment*

The growth of the Zodiac Aerospace Group relies on the excellence and commitment of its teams. To improve its performance and meet the expectations of its employees, the Group focuses on developing skills and offering employees diverse and rewarding careers. In accordance with the Health, Safety and Environment policy signed in September 2014 by Olivier Zarrouati, the Zodiac Aerospace Group makes employee health and safety its number one priority. It is also stepping up its initiatives to reduce its environmental impact and strengthen its industrial risk management policy.



### HUMAN RESOURCES

Recruitment, skills development, organizational effectiveness, stronger Group synergies, health and safety: the Human Resources teams help develop operational strategies and provide support to all business lines.

## 29,708 EMPLOYEES IN 18 COUNTRIES

5,400 NEW HIRES IN THE GROUP IN 2013/2014



AS A GLOBAL GROUP AND LEADER IN ITS INDUSTRY, ZODIAC AEROSPACE OFFERS ITS EMPLOYEES A WIDE VARIETY OF CAREER OPPORTUNITIES. CLOSE TO THE GROUND. THE HR TEAMS ENSURE TO INCREASE THE ENGAGEMENT AND WELL-BEING OF EVERYONE, IN KEEPING WITH THE GROUP'S VALUES **9** 

### **Romaric Chabert**

Group Human Resources Development Director

#### A group process, new tools

Zodiac Aerospace's Human Resources (HR) policy is to ensure that its 30,000 employees have career opportunities that are rewarding on a personal level and useful at a collective level. The implementation of this policy is led by Group HR management and HR managers in host countries, according to the Group's HR Road Map and to a strategy that is increasingly structured at the Group level. HR heads of the twenty largest Group companies hold an annual meeting where they have an opportunity to strengthen synergies, share best practices, and implement Group tools such as the Manager's Charter, a performance assessment process

that defines the Group's 16 core competencies, or a tool that maps the Group's 200 key positions. In addition to local action plans, a Group action plan is under way to address the requirements that emerged from the first internal opinion survey, which was conducted at all sites in July 2013.

### **Increasing the attractiveness** of the employer brand

The Group's expansion is accompanied by an ambitious hiring policy in all business lines and all host countries. A total of 5,400 employees joined the Group in 2013/2014. In addition, 579 people were integrated into the workforce as a result of

acquisitions made during the year. At August 31, 2014, 35% of employees worked in the United States, 22% in France, 12% in Europe (excluding France) and 31% in the rest of the world. Deployed throughout the Group since 2013, the external recruitment tool TalentSoft has been fine-tuned to increase the visibility and attractiveness of the Zodiac Aerospace employer brand. In particular, an advanced statistics module has been added, resulting in better recruitment management and practices in all subsidiaries. User training has also been stepped up. Meanwhile, video testimonials from employees regarding the Group's businesses have been posted on the Applicants >>

of VIE<sup>23</sup> interns got permanent contracts at the end of the program, mostly by their host subsidiaries

.....



by geographic region

### RESOUNDING SUCCESS FOR ZUNI

In its first year of operation, the zUNI e-learning platform was used by 10,000 employees at 19 Zodiac Cabin & Structures sites in the United States. It offers a catalog of over a thousand courses and in 2014 provided more than 120,000 hours of training. It is now starting to be used by other Group businesses in the United States.



offered to each employee annually

website, which is accessible from the corporate website (www.zodiacaerospace.com). Between October 2013 and September 2014, nearly 1,500 jobs were posted publicly and 60,000 applications were received, four times more than during the previous year.

### Attracting talent

To attract the best talent, Zodiac Aerospace is increasing its presentations at engineering schools (such as ISAE Supaero, Supelec, École Polytechnique, and École Centrale) and participating in events such as the Toulouse Technologies Forum and the X Forum, which it sponsored in 2013. It is also participating in events organized by schools, such as recruitment workshops at ISAE, ESTACA and École Polytechnique. To attract young graduates with potential, the French international internship program (VIE) was launched in the Group in 2011. In 2013/2014, around 20 young VIE participants were hosted in Group entities, primarily in the United States and Asia.

### Promoting diverse, rewarding careers

The Group consistently offers high-level training to drive individual and collective performance and produce rewarding careers. Training is largely decentralized and managed by individual entities. It meets very diverse local needs, ranging from specific skills and technology to safety and personal development. Additionally, some training is organized at the Group level, especially in Lean management, guality control and procurement. Leadership training is also encouraged. In France, some 60 managers attend three annual two-day immersion sessions at three sites. In the United Kingdom, Zodiac Seats engineers have the opportunity to boost their careers by joining internship programs in four different departments lasting three months each. In four years, 48 engineers have followed the program and gone on to mentor new participants. In Tunisia in 2013/2014, a total of 475 managers attended a training course focusing on communication and management practices aligned with Group values.



### STRONG VALUES, HIGH ETHICAL AND MANAGERIAL REQUIREMENTS

The Group's Manager's Charter was signed in end of 2013 by the Executive Committee and was shared and supported by division directors. It contains the principles and obligations that managers need to promote and observe. Distributed to all sites and available on the intranet, it is divided into six chapters: ethics; communication and representation; management; property and financial management; business relationships with customers, suppliers and competitors; and health, safety, the environment and quality. The Charter forms the basis of leadership training and is available in four languages.

In addition, all Group employees must respect the principles of integrity, honesty, fairness and protection decreed in the Group's Code of Ethics which is given to all new employees. Its principles are inspired by the values of humility, realism, an entrepreneurial spirit and respect, which have shaped the Group's culture. They are supplemented by provisions, strengthened in 2013, related to the fight against corruption and prevention of conflicts of interest.



Internal mobility, both occupational and geographical, also helps employees develop more fulfilling careers. Employees can view and apply for jobs via the Group Mobility Database, which is open to all employees. In 2013/2014, one out of every five jobs in France was filled internally. Internal mobility is also facilitated in France by Mobility forums which take place every two months and are attended by HR managers and recruiters from different companies.

### Committed to professional gender equality

Zodiac Aerospace is committed to increasing the number of women in positions of responsibility or technical jobs. It has made three undertakings which have been implemented in France and are currently being studied for roll-out in other countries. The first is to offer training courses, preferably leading to a degree, to women who are starting or finishing maternity or parental leave. Secondly, the Group will ensure that women starting or ending maternity leave are not penalized in terms of wage increases compared to other employees. The third undertaking consists of publishing recruitment and promotion statistics for women working in Group entities. If any differences are found between the percentage of women recruited or promoted and the reference population, corrective action is taken. »



Zodiac Aerospace has joined the AFEP<sup>24</sup> "Youth Engagement" initiative to help its trainees find work.



Notre seule Richesse: Les Femmes et les Nommes de la Famille ZODIAC AEROSPACE TUNISIE I

10000 K

ALL

have taken action after analyzing the results of the Group-wide opinion survey conducted in July 2013

In Tunisia, the HR department was renamed the Human Resources and Human Wealth Department with the slogan "Women and men of the Zodiac Aerospace Tunisia family is our only wealth."

### A process of ongoing improvement

After analyzing the results of the Group-wide opinion survey in 2013, HR teams are helping managers implement 450 local action plans, primarily focused on strategy sharing, leadership, collective effectiveness, health and safety. For example, in Caudebec-lès-Elbeuf, employees and executives attend weekly breakfasts for direct discussions on the Group's strategy. Other sites disseminate information locally or stream video bulletins in dining facilities. Managerial practices have been improved through better training of top management, such as in Burg, Germany. Meanwhile, the Roissy maintenance center has launched initiatives to promote best-practice sharing among departments. Health, safety and the environment are also key areas of focus and are the subject of monthly meetings in Santa Maria in the United States, for example.

Local action plans have been supplemented by a Group action plan, the goal of which is to implement the Manager's Charter, set up a customized performance review process for the Group, increase internal mobility, ensure that all Group managers have an individual HR contact, organize at least one festive event per year per site, hold at least two briefing meetings for all employees per year per site, develop local external promotional campaigns, develop a specific communication about new names of Group entities, and deploy the five safety principles at all organizational levels.

<sup>24</sup> The French private companies association





### Absolute priority for occupational health and safety

With occupational health and safety the number one priority, Zodiac Aerospace intends to reduce the accident risk to zero. In 2013/2014, new internal procedures, initiatives within each entity and the involvement of top management all helped reduce the number of lost-time workplace accidents and their severity.

#### Safety culture more widely shared

Risk management is steadily improving thanks to a system of tracking lost-time workplace accidents in each entity and grading their severity at the Group level. The most serious accidents and subsequent actions are systematically compiled into an analytical report that is submitted to Group senior management. Prevention has also improved as a result of the more widespread practice of analyzing nearaccidents and sharing information and feedback among all the entities. Safety committees in France, the UK and North America examine and discuss the Group's

directives and standards, and focus on specific regulatory requirements. A Group best-practices database has been set up and is updated by the entities. Some of the practices will be used to create new Group standards or revise existing ones. Major communications campaigns are conducted Group-wide to educate employees about their role in safety and underscore senior management's commitment to the issue. In Thailand, for example, the working day begins with a safety message an initiative that has been taken up by many entities.

### Improving working conditions and preventing occupational illnesses

Ergonomics training in France, Thailand, Singapore and Mexico has led to certain changes in workstations. For example, anti-fatigue carpets have been installed and material-handling equipment has been improved. A Group standard has also been developed for simplified dimensioning to improve workstations. 50 best practices posted on the Group's database in 2013/2014

24 entities OHSAS 18001-certified including 6 in 2013/2014 (Zodiac Cabin & Structures in Tijuana and Montreal, Zodiac Aerotechnics in Plaisir and Roche-La-Molière, Zodiac Fluid Equipment, and Zodiac Hydraulics)

\_\_\_\_\_

5 Group safety principles

**Zumba** and cookery classes, wellness committees, and individual access to a customized dashboard via an internet portal are all part of a health and wellbeing program run by Zodiac Cabin & Structures in California for its employees.





### ENVIRONMENT

The Group's Health, Safety and Environment policy, signed in September 2014 by Olivier Zarrouati, underscores its commitment to strengthening its efforts to improve the safety and health of its employees, reduce its environmental impact and consolidate its industrial risk management policy. Published in six languages, the policy emphasizes the responsibility of managers, who are also required to sign it.

**38** PRODUCTION SITES ISO-14001-CERTIFIED IN 2013/2014, INCLUDING TIJUANA, MONTREAL AND SOLIMAN



## A better structured GROUP APPROACH



In the new Huntington Beach building, a lighting system automatically adjusts to the amount of natural light and a system opens skylights in offices.

**Rainwater is recovered** for the sanitary facilities at the Canelands plant in South Africa, helping to safeguard a scarce resource and improving workplace comfort for employees.



#### **Environment: four key strands**

Environmental performance, chemical management, integration of environmental considerations in design and development, and management of ISO 14001 are the four key strands of the Group's environmental policy. Each is broken down into mandatory targets or left to the initiative of the business unit, depending on their environmental impact. There are some fifty targets in total, half of which are mandatory. Deadlines, reporting, review frequency and the person responsible are defined for each target.

To support this initiative, Zodiac Aerospace has implemented a number of procedures and standards pertaining, for example, to chemical substance management and selection criteria, management reviews, and inter-unit audits. In all, 92% of business units use the shared Dashboard for reporting environmental data.

### Creating a database to share best practices

Since spring 2014, the Group's Best Practices Database has provided business units with access to the best and most reproducible initiatives. Within five months of its launch, the database contained more than a dozen best practices. These included the installation of dust extraction systems, rainwater collection and selective tree-watering at the plant in Chihuahua, Mexico, for a monthly water saving of 800 m<sup>3</sup>, and the use of solar panels to power the outdoor lighting at the Grombalia plant in Tunisia, generating savings of 46,000 kWh/year and avoiding the emission of 25.1 tonnes of CO<sub>2</sub> eq. Meanwhile, in Ars, France, the use of digital tablets has reduced the need to print plans and administrative documents. saving more than 200 reams of paper per vear. Another initiative that has contributed to employee comfort is the recovery of rainwater for the sanitary facilities at the Canelands plant in South Africa, which employs mostly women and is located in a region of water stress

### Improving environmental performance

The Group continues its proactive waste-reduction policy and has set itself the target of at least 80% waste recovery and at least 45% »



92% of business units

use the Group's dashboard for their environmental reporting

> waste recycling. In 2013/2014, the amount of waste per production hour remained stable. A total of 61% of waste was recovered, of which 53% was recycled. The rest was incinerated for energy production. Recycling also supports some outreach initiatives, such as in Cognac where scraps of fabric from rescue and safety equipment are recycled into leather goods by a business employing disabled workers.

Improving environmental performance also means reducing energy consumption and associated greenhouse gas emissions. To achieve its goal of a 1% decrease in consumption, the Group is making every effort to improve the energy efficiency of its manufacturing processes. It has also undertaken numerous initiatives geared toward more energy-efficient solutions such as solar heating for domestic hot water in Chihuahua, LED lighting and sprinkler systems in two workshops at the Cognac plant and, in the new building in Huntington Beach, a lighting system that automatically adjusts to the amount of natural light and a system that opens skylights in offices. In Plaisir, the refurbishment of the Maurice Mallet building and the newly built cafeteria both meet the stringent requirements of France's 2012 thermal regulation.

### ACROSS-THE-BOARD SUCCESS AT THE ZODIAC SEATS PLANT IN GAINESVILLE

The Gainesville plant in the United States has reduced its water and electricity consumption by 29% and 10% (per hour of work) respectively. It recycles 55% of its waste, particularly pallets, and has reduced its landfill volume by 7%. Nitric acid, used to treat metal surfaces, has been almost entirely replaced by citric acid, while the use of new primer paint has led to the elimination of hexavalent chromium. The prevention of accidental pollution has been further strengthened by the use of holding tanks. In addition, all employees are trained in chemical labeling.



There has also been a decrease in water consumption as a result of recycling treated water and cutting waste. The Caudebec plant, which requires large volumes of cooling water, has installed an acoustic leak-detection system, reducing consumption by 20%.

### Group standards for chemicals and chemical management

The Group is committed to cutting by 20% annually the use of products or materials containing chemical substances of very high concern to human health or the environment. In Europe, substances and materials subject to the REACH regulation are tracked and removed.

The Group's standard on selection criteria for chemical substances and materials uses a standard data sheet to define the process for approving a new material or chemical substance. It then

prioritizes those that must be replaced based on their proven or suspected danger. In addition, Safety and Environment managers may prohibit a new material or chemical substance if they feel it presents a danger to human health and the environment. A Group standard has also been created for managing chemicals, from their on-site delivery to their disposal. All plants must be in compliance with this standard for chemical storage and accidental pollution management by the end of 2014.

### Ecodesign: quantifying the impact to improve decision-making

From lighter products and recyclable or environmentally friendly materials, to reduced packaging, the elimination of polyurethane foam and substitution of chemicals, best practices are »

### REDUCING THE CARBON FOOTPRINT OF AIR TRANSPORTATION

Zodiac Aerospace supports a number of initiatives to reduce the carbon footprint of air transportation, which is responsible for 2.5% of global greenhouse gas emissions. Its experts are heavily involved with the European Clean Sky Joint Technology Initiative and are working to improve the energy efficiency of nonpropulsion systems, specifically electric wing deicing and electrical power distribution and management. They are also working with the Future Alternative Fuel Coordination Committee, headed by the DGCA<sup>25</sup>, on physical-chemical changes in new biofuels and their potential impact on aircraft systems.

### FLAX, PAVING THE WAY FOR ECO-COMPOSITES

At the Composites trade show in Paris in 2014, Zodiac Cabin & Structures exhibited a seat shell made of high-performance flax-fiber panels that are lighter than their fiberglass equivalent. This demo model is the result of collaboration between flax growers in Normandy and the association of flax producers, Fimalin, whose Fiabilin project, certified under France's Investing for the Future initiative, aims to create a "technical flax" sector. Set to become the third most important fiber in composites, next to carbon and glass, flax will pave the way for eco-composites.



The Zodiac Cabin & Structures plant in Colomiers recovers wastewater from paint booths, then treats and recycles it for use in its manufacturing processes.



**Charging stations** have been set up to support the development of electric vehicles, complementing local carpooling initiatives. » becoming the norm. Zodiac Aerospace has rolled out EIME's Life Cycle Assessment (LCA) and ecodesign software at six sites in France and is training employees in its use. One of the goals is to create a working group in the United States in 2015. The EIME software, which complements the tool used previously, accurately quantifies the main environmental impact of products such as the Dragonfly seat, several types of power management sub-units, fuel inerting systems, onboard computers, and aircraft cabins. This is essential when seeking alternative solutions that are designed to have a lower environmental impact. Research conducted by Zodiac Fuel & Inerting Systems, for example, has confirmed the importance of making products more lightweight

and improving their energy efficiency. At the same time, it has highlighted several areas for improvement, especially logistics and integrating recycled material into production. For its part, Zodiac Seats France has formed a number of manufacturing and institutional partnerships to improve the disassembly and recyclability of its seats.

### Performance measured for ongoing improvement

Environmental performance is measured by independent audits and inter-BUs audits. Standards and documentation associated with these audits have been reworked. Furthermore, annual management reviews now fall under a Group standard and must take place at least once a year at each site and include criteria consistent with ISO 14001 and OHSAS 18001 and the

1								ADDIAC ADDIAC
In case of								NO-POH
		1.1	N. In the local division of the local divisi		120		-	The Rev
	-	-	-	-		-	100.00	- fee been
-	-	200	5307	-	+		ाल	
-	(m)	office .	m-08*	.75.				Normal Injus
and a set	**	a.15.4	-		-			STREET, STREET
3440	-	mile	256		10.0	***		- Test Recipional -
-	-		-4527	100	+	***	1.0	- Transmission
Taxes .	-			-	+++++	*0.0	44	Contractory of
and the lot		100.0110	400.	100	-16		-14	Name (printed in Farger
management	1414	111	-22	-			114	
ani a	-	-	214	-				in l
-	-	-			14			
International States		POINT.	-					

#### A tool for managing safety data sheets has been deployed in the United States. It is similar to the tool already in use at European sites. Safety data sheets inform users about the chemical composition of products and the precautions that must be taken.



In Braintree (United Kingdom), heat from the Zodiac Aerospace Services workshop is recovered from the upper portion of the building and recycled uniformly and noiselessly. The equipment delivery area has been insulated and offices have been equipped with LED lighting.



In Cognac, scraps of fabric from rescue and safety equipment are recycled into leather goods by a business employing disabled workers.

Group's expectations. Another line of progress is the environmental and safety training given to all new employees.

All these environmental initiatives are gradually being extended to suppliers, who will have to comply with a Group standard that contains the same requirements already relayed to Procurement teams. An environmental clause has been forwarded to suppliers and is included in all contracts. 35% of Group employees received environmental training in 2013/2014

.....

......

Zodiac Aerospace sits on a number of professional bodies to share with its peers best practices and the lessons it has learned. A founding member of the IAEG<sup>26</sup>, it participates in working groups focusing on the traceability of chemical substances in purchased materials, the substitution of hexavalent chromium, and greenhouse gases (GHG). As a member of the GIFAS Environment Committee, it is active in ecodesign, REACH and GHG working groups.



## OPERATING RISK MANAGEMENT



**Improving fire protection** is a key component of the Group's industrial risk management policy. Sprinkler system pumps at the Plaisir site.

**In Niort,** production was safely transferred to a new building.

The industrial risk management policy contributes to the sustainability of the Group, which is stepping up its prevention and protection measures.

### Preventing and protecting sites against fire and natural disasters

In 2008 Zodiac Aerospace created a risk matrix for each site based on data from engineer site visits and reports from its insurance company and industrial risk management specialists. This matrix has led to stronger measures for preventing and protecting against fire and natural disasters, and to sitespecific prioritized action. At the end of August 2014, none of the Group's 84 industrial sites visited by its insurer was rated high risk and 80 sites were divided into categories A (highly protected against risk), B and C (low risk). Efforts are under way to strengthen the protection of the four sites classified as medium risk (category D).

The ultimate goal is for all sites to be classified between A and C.

### **Business continuity plans**

Although its industrial operations are divided among 84 sites, Zodiac Aerospace nevertheless deploys business continuity plans to minimize the risk posed by accidental business disruption at one of its sites. These plans have identified ways to restart internal or outsourced production. New plans will be rolled out in 2015 at a number of sites in North America and Mexico.

### Monitoring the REACH directive

As part of the European REACH regulation, aimed at ensuring a high level of protection against the risks associated with chemicals, Group sites in Europe are identifying the chemicals they use and listing the substances they contain so as to prioritize substitutions. As the European sites import very few chemicals, the Group's "downstream user" status is preserved. The Group has advised its suppliers of the terms under which it will use their products at its sites, enabling suppliers to include those terms in their registration dossiers. Uses covered by these registrations are monitored and, in the case of non-covered uses. action is taken to ensure the product is used in accordance with supplier recommendations. This might involve changing the process or stepping up protective measures, for example.

## **SOCIETAL COMMITMENT**

## SOCIETAL COMMITMENT

5,000th dream came true in 2014 thanks to the *Petits Princes* association

www.petitsprinces.com

In 2007 three children sponsored by the *Petits Princes* association visited the NASA Space Center in Houston, Texas. In 2008 Cedric had the opportunity to discover Canada's great outdoors, while in 2010 Charlotte got to see the Guadaloupe seabed. Sarah, Mathieu and Jérôme explored the streets of New York for five days in 2012, and in summer 2014, Yoann, a model aircraft enthusiast, boarded a light aircraft to fly over the Loire chateaux.

Zodiac Aerospace has been a partner of the French charitable association *Petits Princes* since 2003. As such, it has helped turn the dreams of seriously ill children or teenagers into reality through financial support or the direct involvement of its employees in countries and aerospace sectors in which the Group operates. Complementing this Group initiative are numerous local initiatives by sites involved in youth education, health, and supporting people in need.





Zodiac Aerospace Group bases its growth on its solid operating performance and its rigorous financial management.

### MANAGEMENT team

True to the Group's fundamental values, senior managers favor quick decision-making processes and accessibility to their teams for more responsiveness, better performance, international inclusiveness and transparency.



### THE EXECUTIVE BOARD AND EXECUTIVE COMMITTEE

The Executive Board and 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 twelve key functional and operating executives.

**OLIVIER ZARROUATI**\* (1) Chief Executive Officer

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

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

**YANNICK ASSOUAD** (4) Chief Executive Officer, Zodiac Aircraft Systems Segment

CHRISTOPHE BERNARDINI (5) Chief Executive Officer, Zodiac Aerospace Services

JEAN-MICHEL CONDAMIN (6) Chief Executive Officer, Zodiac Galleys & Equipment Segment

**GILLES DEBRAY** (7) Chief Executive Officer, Zodiac AeroSafety Segment **CHRISTIAN NOVELLA** (8) Chief Executive Officer, Zodiac Seats Segment

**STEPHEN ZIMMERMAN** (9) Chief Executive Officer, Zodiac Cabin & Structures Segment

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

**DELPHINE SEGURA-VAYLET**\*\* (11) Executive Vice-President, Group Human Resources

PIERRE-ANTONY VASTRA (12) Executive Vice-President, Communication and Investor Relations

**CARINE VINARDI**\*\*\*\* (13) Executive Vice-President, Group Lean

- \* Member of the Executive Board
- \*\* Executive Committee member since November 3, 2014

\*\*\* Executive Committee member since September 1, 2014

The operation of the Executive Committee, the Supervisory Board and its three Committees is detailed in the "Governance" section of the financial Annual Report.



### SUPERVISORY BOARD

The Supervisory Board supervises the proper operation of the Group and reports to the shareholders accordingly. 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.

\*\*\*\* Qualified by the Selection Committee of September 23, 2014 as an independent member according to the criteria defined in the French AFEP/MEDEF Code.



**DIDIER DOMANGE** (14) Chairman of the Supervisory Board

LOUIS DESANGES Vice-Chairman

MARC ASSA\*\*\*\*

#### ANNE AUBERT Representative of the employees of the Zodiac Aerospace Group

**PATRICK DAHER\*\*\*\*** 

ÉLISABETH DOMANGE

FFP INVEST\*\*\*\* Represented by Frédéric Banzet

VINCENT GERONDEAU\*\*\*\*

LAURE HAUSEUX\*\*\*\* GILBERTE LOMBARD\*\*\*\*

**ROBERT MARÉCHAL** 

## Another YEAR of ORGANIC GROWTH

Once again the Group posted revenue growth, with a substantial contribution coming from Zodiac Aircraft Systems. Net income was down slightly over the previous year due to unfavorable exchange rates and the temporary operational difficulties encountered by Zodiac Seats and Zodiac Galleys & Equipment. The Group's financial structure remains very solid with a debt-to-EBITDA ratio of 1.42 (before the purchase of Greenpoint Technologies).

In March 2014, the lending banks renewed their confidence in the Group by contributing more than  $\in 1$  billion to a new "club deal", which extends the maturity of our debt.

As a result of the above, Zodiac Aerospace has every confidence in the next phase of its external and internal growth.



Administration and Finance

€4/ billion in consolidated revenue

13,6% operational margin\*

€5673 million in current operating income\*

€354.4 million in reported net income

€1,35 in net earnings per share\*

\* Excluding the effect of IFRS 3



**Change in consolidated sales revenue** (*in* € *millions*)



Disposal of Marine activities in 2007/2008

## Another YEAR of ORGANIC GROWTH



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



#### **CURRENT OPERATING INCOME** (in € millions)



\* Disposal of Marine activities



NET INCOME ATTRIBUTABLE TO EQUITY HOLDERS OF THE PARENT COMPANY (in € millions)







## ZODIAC AEROSPACE SHARES

Zodiac Aerospace stock continues to improve

Division by five of the share's par value on February 24, 2014.

€ 1.35 reported net earnings per share excluding IFRS 3

Zodiac Aerospace shares are listed on Euronext Paris. Zodiac Aerospace is part of the Euronext CAC NEXT 20 index, which comprises the 20 biggest companies in terms of free-float market capitalization after those of the CAC 40. Zodiac Aerospace shares are also included in a number of multi-sector market indices: Euronext 100. CAC Aerospace & Defense. CAC Industrials. CAC Large 60, 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. Zodiac Aerospace shares are eligible for the deferred settlement service

(SRD – Service de règlement différé) and employee savings plan (PEA).

In the ICB<sup>27</sup> classification system, the shares are listed under Supersector 2700 – Industrial Goods & Services – and Sector 2710 – Aerospace & Defense.

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

<sup>27</sup> Industry Classification Benchmark

€0.32

net dividend per share proposed to the general meeting of shareholders

### Division of share's par value

At its meeting on January 8, 2014, the Combined General Meeting of Zodiac Aerospace shareholders voted to divide the par value of each company share by five in order to increase the stock's liquidity and make its shares more accessible to individual shareholders. Consequently, at the close of the stockmarket on February 24, 2014, each outstanding share was exchanged for five new shares under the same settlement terms, with no change to the share capital. The operation incurred no costs. required no formalities on the part of Zodiac Aerospace shareholders, and had no impact on shareholder rights. The new number of shares and net earnings per share reflected this adjustment.

#### Share price rise

The 11.6% increase in the Zodiac Aerospace share price in 2013/2014 was 1.3 percentage points higher than the SBF 120 index over the same period (+10.3%). This was due first and foremost to a favorable environment resulting from the increase in air traffic and aircraft production. Despite the impact on results of the temporary difficulties experienced by Galleys & Equipment in the first half and Seats in the second, Zodiac Aerospace still recorded operating income growth on a like-for-like consolidation scope and exchange rate basis.



at August 29, 2014

While unfavorable exchange rates, particularly between the dollar and euro, had a major impact on the results for the period, their improvement at the end of the year was well received by the markets.

#### **Investor information**

#### The Group's website,

www.zodiacaerospace.com, has a dedicated shareholders section which includes the financial calendar, stock price, press releases and preparatory documents for the general meeting of shareholders. Information can be viewed in two clicks on any device (computer, tablet or smartphone).

The website also features information on the Group and its strategy, positioning, commitment to sustainable development and product offering via a comprehensive, illustrated directory of its systems and products.

Zodiac Aerospace also uses social media (twitter@ZodiacAero and LinkedIn) to communicate information about its results, commercial successes and participation at trade shows and other events.

#### **Share capital**

At August 31, 2014, Zodiac Aerospace's share capital stood at €11,537,373 divided into 288,151,220 shares.

#### 2008-2014 ZODIAC AEROSPACE SHARE TREND



**BREAKDOWN OF CAPITAL AT AUGUST 31, 2014** (*in* %)



### **CONTACT US**

Via our website www.zodiacaerospace.com

#### By mail

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

#### By email

actionnaires@zodiacaerospace.com

	Fiscal year 2009/2010	Fiscal year 2010/2011	Fiscal year 2011/2012	Fiscal year 2012/2013	Fiscal year 2013/2014	
High/low (closing price)						
High (in €)	9.58	12.48	16.97	22.46	26.9	
Low (in €)	4.48	8.99	10.54	14.75	21.4	
Price at August 31 (in €)	9.49	11.22	15.16	21.91	24.83	
Number of shares at August 31	278,540,390	280,871,035	283,722,195	285,628,640	288,434,325	
Market capitalization in €k at August 31	2,664,343	3,182,228	4,331,273	6,258,124	7,161,824	
Average daily traded volume						
Shares	1,352,775	904,465	821,660	637,970	476,271	
Capital in €k	8,807.44	9,446.91	11,717.27	11,321.51	11,738.77	

Source: NYSE-Euronext Paris

(Previous fiscal years adjusted after the share's par value was divided by 5)

## Consolidated STATEMENT OF FINANCIAL POSITION

### **ASSETS**

(in thousands of euros)	Year ended Aug. 31, 2014	Year ended Aug. 31, 2013
Goodwill	1,779,309	1,568,750
Intangible assets	619,099	557,528
Property, plant and equipment	396,241	345,089
Investment in associates and joint ventures	1,427	670
Loans	10,053	145
Other non-current financial assets	14,075	14,822
Deferred tax assets	1,227	970
Total non-current assets	2,821,431	2,487,974
Inventories	1,008,262	859,001
Current tax assets	76,665	47,512
Trade receivables	897,394	738,435
Advances to suppliers and employees	12,549	13,868
Other current assets	30,470	20,662
Other financial assets:		
- loans and other current financial assets	1,309	4,633
Cash and cash equivalents	166,731	156,840
Total current assets	2,193,380	1,840,951
Held-for-sale assets <sup>(1)</sup>	9,760	1,356

TOTAL ASSETS	5,024,571	4,330,2

<sup>(1)</sup> At August 31, 2013 and August 31, 2014, the amounts pertained to buildings held for sale.

### **EQUITY AND LIABILITIES**

(in thousands of euros)	Year ended Aug. 31, 2014	Year ended Aug. 31, 2013
Capital	11,537	11,486
Share premiums	133,182	125,194
Consolidated reserves	2,169,147	1,896,798
Currency translation adjustments	(20,017)	(48,647)
Fair value adjustment of financial instruments	(2,019)	393
Net income attributable to equity holders of the parent company	354,413	370,914
Treasury stock	(84,448)	(89,880)
Equity attributable to equity holders of the parent company	2,561,795	2,266,258
Minority interests:		
- in equity	648	727
– currency translation adjustments	(109)	(82)
- in consolidated net income	(810)	(186)
Minority interests	(271)	459
Equity	2,561,524	2,266,717
Non-current provisions	114,591	88,941
Non-current financial liabilities	840,574	908,597
Other non-current financial liabilities	70	1
Deferred tax liabilities	155,507	146,936
Total non-current liabilities	1,110,742	1,144,475
Current provisions	92,322	76,064
Current financial liabilities	393,414	92,005
Other current financial liabilities	3,180	281
Trade payables	379,260	312,993
Liabilities to employees and payroll liabilities	195,686	179,748
Current tax liabilities	44,393	52,796
Other current liabilities	244,050	205,202
Total current liabilities	1,352,305	919,089
TOTAL EQUITY AND LIABILITIES	5,024,571	4,330,281

## Consolidated STATEMENT OF PROFIT AND LOSS

(in thousands of euros)	Year ended Aug. 31, 2014	Year ended Aug. 31, 2013
Sales revenue	4,174,512	3,891,609
Other revenue from operations	17,608	10,589
Purchases used in the production	1,711,558	1,556,945
Personnel costs	1,221,512	1,122,996
External costs	594,420	537,970
Taxes other than income taxes	34,155	30,394
Depreciation and amortization	93,916	81,923
Charges to provisions	33,727	24,629
Changes in inventories of finished goods and work in progress	64,757	38,089
Other operating income and expenses	(1,162)	(1,107)
Current operating income	566,427	584,323
Non-current operating items	(24,587)	(23,186)
Operating income	541,840	561,137
Income/(expenses) related to cash and cash equivalents	1,528	(424)
Cost of gross debt	(32,791)	(25,259)
Cost of net debt	(31,263)	(25,683)
Other financial income and expenses	(2,496)	(2,365)
Income taxes	(153,390)	(161,629)
Results of companies accounted for by the equity method	(1,088)	(732)
NET INCOME	353,603	370,728
Attributable to non-controlling interests	(810)	(186)
Attributable to equity holders of the parent company	354,413	370,914
Basic earnings per share attributable to equity holders of the parent company	€1.291	€1.362
Diluted earnings per share attributable to equity holders of the parent company	€1.280	€1.346

## Consolidated STATEMENT OF CASH FLOWS<sup>(1)(2)</sup>

(in thousands of euros)	Year ended Aug. 31, 2014	Year ended Aug. 31, 2013
Operating activities:		
Net income	353,603	370,728
Results of companies accounted for using the equity method	1,088	732
Depreciation, amortization and provisions	128,232	116,090
Capital gains	926	1,102
Deferred taxes	17,749	13,570
Stock options	7,826	7,670
Other	(219)	(416)
Cash flow from operations	509,205	509,476
Net change in inventories	(133,905)	(73,087)
Net change in operating assets	(163,538)	(92,923)
Net change in debt	20,059	48,140
Cash flow generated from continuing operations	231,821	391,606
Investing activities:		
Acquisitions of non-current assets:		
- intangible assets	(82,031)	(73,905)
- property, plant and equipment	(113,189)	(95,218)
- other	(11,044)	(1,118)
Proceeds from sale of property, plant and equipment	1,845	1,144
Changes in receivables and payables relating to fixed assets	657	(582)
Acquisitions/(disposals) of entities, net of cash acquired <sup>(3)</sup>	(162,717)	(159,615)
Cash flow from investments	(366,479)	(329,294)
Financing activities:		
Change in debt	236,113	1,071
Change in financial instruments	-	-
Increase in equity	8,028	11,326
Treasury stock	(118)	(627)
Ordinary dividends paid by parent company	(87,790)	(76,080)
Dividends paid to minority interests	-	-
Cash flow from the financing of continuing operations	156,233	(64,310)
Currency translation adjustments, beginning of period	(4,626)	(8,176)
CHANGE IN CASH AND CASH EQUIVALENTS	16,949	(10,174)
CASH AT BEGINNING OF PERIOD	138,721	148,895
CASH AT END OF PERIOD	155,670	138,721

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

<sup>(2)</sup> No activities are currently in the process of being sold.

(3) At August 31, 2013, this involves 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), and at August 31, 2014, of TriaGnoSys, Pacific Precision Products and Greenpoint Technologies.

# NON-FNANCIAL INDICATORS

#### ZODIAC AEROSPACE **107**

## **KEY ENVIRONMENTAL INDICATORS**

#### At August 31 2012/2013 2013/2014 **ENERGY** (76 sites, (79 sites, or 95% of staff) or 96% of staff) (in kWh thousands) 183.049 204.643 Electricity Gas 117.762 130,437 Fuel 4,164 4,026

	2012/2013	2013/2014
WATER (in m <sup>3</sup> thousands)	(74 sites, or 94% of staff)	(74 sites, or 94% of staff)
TOTAL	910	907

304,978

	2012/2013	2013/14
WASTE (in tonnes)	(76 sites, or 95% of staff)	(75 sites, or 94% of staff)
Landfill	7,584	9,087
Material recycling	9,271	12,549
Energy recovery	1,880	1,934
TOTAL	18,735	23,570
% recovered	60%	61%
o/w % recycled	49%	53%

- Accident with environmental impact: none recorded
- Gradual soil pollution: none recorded
- Gradual pollution of the natural environment: none recorded
- Active chronic soil pollution: none recorded
- Greenhouse gas emissions quota trading: no site subject to this at August 31, 2014
- ICPE regulations
  - No site subject to registration at August 31, 2014
    Four sites subject to periodic control at August 31, 2014
    Five sites subject
  - to authorization at August 31, 2014

### Permanent PAID EMPLOYEES at August 31

	2012	2013	2014
Zodiac AeroSafety	4,780	4,073	4,391
Including companies: in France	1,857	1,391	1,408
in Europe (excluding France)	185	121	117
in the United States	1,313	1,313	1,434
in the rest of the world	1,429	1,248	1,432
Zodiac Aircraft Systems	4,211	5,992	6,741
Including companies: in France	2,897	3,462	3,697
in Europe (excluding France)	23	345	386
in the United States	653	1,374	1,526
in the rest of the world	638	811	1,132
Aircraft Interiors	15,584	15,889	18,427
Including companies: in France	1,220	1,238	1,227
in Europe (excluding France)	3,272	2,938	3,207
in the United States	7,155	6,950	7,580
in the rest of the world	3,937	4,763	6,413
Subtotal			
Zodiac Cabin & Structures		6,227	7,167
Zodiac Galleys & equipment		3,866	4,161
Zodiac Seats		5,796	7,099
Holding companies	117	128	149
GROUP TOTAL	24,692	26,082	29,708
Including companies: in France	6,091	6,214	6,478
in Europe (excluding France)	3,480	3,404	3,710
in the United States	9,121	9,637	10,539
in the rest of the world	6,000	6,827	8,981

#### CREDITS

**Corporate Communication Department:** Zodiac Aerospace Group / **Designed and produced by:** OKAPI / **Written by:** Anne de Beco / **Financial Report prepared by:** Gillet M§M / **Photo Credits:** Zodiac Aerospace Group photolibrary; Photopointcom; Airbus; Air France; Courtesy of AVINOR; Courtesy of Palm Beach Int'l Airport; Dassault Aviation; EIVI; Embraer; H. Goussé; Ian Cowen-Richards (Zodiac Water & Waste Systems); John Marian Photography; Michael Mc Elroy; Sudhakar Rajmohan (Zodiac Seats US); ZEO. Thanks to Zodiac Cabin Interiors Europe.

