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International Exhibition & Conference on Civil Aviation
WINGS INDIA 2018
March 8-11, 2018
Begumpet Airport, Hyderabad, India

DAY-1
THURSDAY,
MARCH 8, 2018

SP'S

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# SHOWNEWS

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Adel Abdullah Ali, Group Chief Executive Officer (CEO) of Air Arabia with SP's Civil Aviation Yearbook 2017-2018

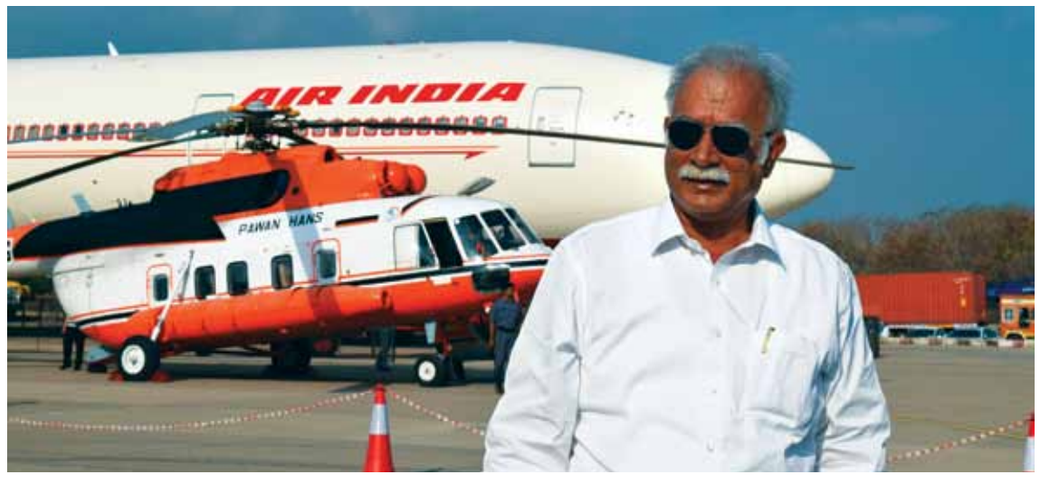
## INSIDE



WINGS INDIA 2018 OPENS TODAY

# WINGS INDIA 2018 – A FLYING FILLIP TO REGIONAL CONNECTIVITY

Civil Aviation Minister Ashok Gajapathi Raju will inaugurate the event today




By **A.K. SACHDEV**

The seventh edition of Indian civil aviation sector's flagship event, Wings India 2018, is back with a bang. The four-day long event kicks off today at Begumpet Airport, Hyderabad, aptly themed 'India-Global Aviation Hub'. The domestic air passenger traffic has grown at 18 per cent per year over the last three years and is expected to grow 25 per cent, crossing 130 million in financial year 2017-18, making the event's special focus on regional connectivity very timely.

Civil Aviation Minister Ashok Gajapathi Raju will inaugurate and address the Wings India 2018 that commences today. Telangana Chief Minister K. Chandrashekhar Rao and Civil Aviation Secretary R.N. Choubey will also address the session of the biennial event.

The previous year saw a lot of bustle in Indian civil aviation sector. A report by the International Air Transport Association (IATA), released at the beginning of this year, declared that Indian domestic market had posted the fastest full-year growth rate of 17.5 per cent in the world in terms of Revenue Passenger Kilometres (RPK) for the third consecutive year running albeit with the sobering caveat that the overall rate had slowed down as compared to the previous year. The predominant factors helping India in this direction have been the dominance of the low fare model, low fuel costs, ambitious plans of airlines in terms of aircraft acquisition, the cut throat competition in air ticket pricing and ongoing government efforts to increase the number of city pairs connected by air through a Regional Connectivity Scheme (RCS).

### GROWING PAINS

India is now the third largest domestic aviation market in the world and is projected by international consulting entities to become the overall third largest aviation market within the next decade. The growing spending power of the middle class and the emergence of the low-cost model as the predominant one since Air Deccan's meteoric rise in 2003, have provided strong impetus to the airline industry. The total number of passengers carried by domestic airlines during January 2018 was 114.65 lakh, a growth of 19.69 per cent over January 2017. Airlines have been registering high Passenger Load Factors (PLFs) with SpiceJet achieving over 90 percent PLF for 34 consecutive months. IndiGo, GoAir and JetLite have also

been enjoying PLFs touching 90 per cent. In terms of market share, IndiGo leads at 39.7 per cent, followed by Jet Airways (14.3 per cent), Air India (13.3 per cent), SpiceJet (12.6 per cent), and GoAir (9.6 per cent). The smaller shares are AirAsia India at 4.3 per cent, followed by Vistara (3.6 per cent), JetLite percent (2.3 per cent) and Trujet (0.3 per cent). The overall cancellation rate for domestic airlines is just over one percent but the On Time Performance (OTP) figures are depressing with IndiGo leading at an abysmal 75.4 per cent.

Perhaps the OTP figures are a reflection of the infrastructure woes that afflict Indian civil aviation. With the restriction on five years of domestic operations before flying international having been waived, the only requirement now is to own 20 aircraft to be eligible. With IndiGo, SpiceJet, GoAir, Jet Airways and Air India already qualifying and others striving hard to achieve the required fleet strength, international operations by Indian carriers can be expected to pick up pace. IndiGo and SpiceJet have announced plans to induct long-haul aircraft in the near future while Jet Airways and Air India already fly long-haul flights.

### AVIATION FOR AAM NAGRIK

Various policies by Directorate General of Civil Aviation (DGCA) since 1994 to promote regional and remote area connectivity including a Route Dispersal Guideline issued in 2007, have had unimpressive results. The NDA government brought out a Regional Connectivity Scheme (RCS) as part of the New Civil Aviation Policy in 2016 bringing about motivational guidelines to incentivise flights to un-served and under-served airports. Launched with fanfare, the scheme used the catchphrase Ude Desh Ka Aam Nagraik (UDAN) and in its first stage, awarded 128 RCS routes involving 31 un-served airports, 12 under-served airports and 27 functioning airports. Theoretically, 13 lakh seats per year were added as a result. National airlines were roped in to participate in RCS leading to a watering down of the basic policy of having smaller regional operators and subsidising their operations. In the second stage, 325 routes were awarded to 17 operators including SpiceJet (20), IndiGo (20) and Jet Airways (4). 70 percent (31 out of 56 cities) will be served by helicopters. The subsidy cost of the second phase of UDAN will be around Rs 620 crore for 325 routes as compared to first round that required Rs 213 crore for 128 routes.

However, the orders for additional aircrafts by airline operators, IndiGo for 50 new ATR-72 and SpiceJet for 50 Bombardier Q-400 planes, are not ideal for RCS. Short Take Off and Landing (STOL) aircraft with up to 20 seats would be more aligned with the spirit of UDAN. The distance of most airports from the small towns they serve is another impediment. For instance, the subsidised fare on the Delhi-Shimla air route is over Rs 2000 but the cab fare from the airport to the town exceeds that figure. The general consensus at the moment is that UDAN is yet to take-off meaningfully. Another con is that the flights will have to connect Tier II/III city airports to others in the same category as the metros have no time or place for them.

### BAOA TO THE RESCUE

Growth of general aviation, the step child of Indian civil aviation, has been stunted due to regulatory policies and is constantly trying to struggle to keep afloat. In this regard, the unswerving endeavours of Business Aircraft Operators Association (BAOA) to sensitise the Ministry of Civil Aviation (MoCA) and the DGCA about the problems being faced not just by business aviation but by general aviation as a whole, have been of immense benefit to all stakeholders in the general aviation space. A mind-set of the establishment eyeing general aviation as a luxury rather than a contributor to economic growth needs to change before general aviation can exploit its full potential.

### IMPEDIMENTS OF EXPLOITING THE POTENTIAL

Geographically, India is suitable for becoming an international aviation hub. Moreover, growing spending power of the middle class has fuelled outbound tourism. However, some factors inhibit the exploitation of the full potential of Indian aviation. One major factor is that the infrastructure growth does not commensurate with the domestic airline proliferation. The metros are already distended to full capacity. Mumbai recently touched 980 arrivals and landings in a single 24-hour period, and others will soon follow suit. According to one projection, majority of Indian airports are likely to exceed their designed traffic handling capability within the next decade or so. Thus the domestic air passenger growth is likely to plateau out in the near future. There are safety implications of overcrowded airports with air traffic management.

Sadly, the DGCA is short of qualified staff and lacks to command basic respect from civil aviation stakeholders. It is headed by a generalist with little knowledge of aviation matters and the MoCA also has no aviation specialist with professional standing and knowledge on board. For two decades there has been a proposal for replacement of the DGCA by a Civil Aviation Authority (CAA) with complete autonomy and financial powers but this is yet to be implemented.

The Finance Minister's recent budget speech mentioned that the government was developing 56 un-served airports and intended to raise the airports tally five times of the present 124. However, financial experts point out that the budgetary allocation for this purpose was inadequate. Importance is also being given to seaplane operations with Union Minister Nitin Gadkari reportedly stating that India was aiming for 10,000 seaplanes. Seaplanes will contribute significantly to regional connectivity especially in coastal areas and towns near large water bodies. The privatisation of Air India is expected to brighten up the scheduled airline space as some of the bilateral air services agreements that were mismanaged by Air India could come back to Indian carriers, most of whom are raring to jump on to the international flights bandwagon. Telecom Regulatory Authority of India has recommended that telephone and Internet services be permitted for all flights in Indian air space making aviation more attractive. A huge fillip could be given to civil aviation if the long standing demand of the industry to place aviation fuel under the gambit of declared goods is met. Perhaps there was an opportunity to meet that demand somewhat by including it under the GST regime. For the time being, that opportunity appears to have been squandered.

Undisputedly, India has great potential in the civil aviation but needs to seriously address some of the impediments to achieve an impressive global position. If that does not happen, it is quite possible that in a year or two, Indian civil aviation will plateau out. Re-launching it will take much more effort than giving it the required push now. •

***—With inputs from Arpita Kala***

**PUBLISHER AND EDITOR-IN-CHIEF**
Jayant Baranwal

**DEPUTY MANAGING EDITOR**
Neetu Dhulia

**SENIOR CONTRIBUTORS**
Air Marshal (Retd) B.K. Pandey
Lt General (Retd) Naresh Chand
Lt General (Retd) P.C. Katoch
Lt General (Retd) V.K. Kapoor
Rear Admiral (Retd) S.K. Ramsay

**ASSISTANT FEATURES EDITOR**
Arpita Kala

**PRINCIPAL CORRESPONDENT**
Rohit Srivastava

**CHAIRMAN & MANAGING DIRECTOR**
Jayant Baranwal

**PLANNING & BUSINESS DEVELOPMENT**
Executive Vice President: Rohit Goel

**SALES & MARKETING**
Director: Neetu Dhulia
General Manager Sales: Rajeev Chugh

**CREATIVE DIRECTOR**
Anoop Kamath

**LAYOUT DESIGNERS**
Vimlesh Kumar Yadav, Sonu Singh Bisht
Research Asst-Graphics: Survi Massey

**ADMIN & COORDINATION**
Bharti Sharma

**ASST-ADMIN, HR & INFRA**
Pooja Tehlani

**SP'S WEBSITES**
Sr Web Developer: Shailendra Prakash Ashish
Web Developer: Ugrashen Vishwakarma

**SP GUIDE PUBLICATIONS PVT LTD**
A-133, Arjun Nagar,
(Opposite Defence Colony)
New Delhi 110003, India

Tel: +91 (11) 24644693, 24644763, 24620130
Fax: +91 (11) 24647093

E-mail: info@spguidepublications.com

Owned, published and printed by Jayant Baranwal on behalf of SP Guide Publications Pvt Ltd. 

Printed at Kala Jyoti Prcoess Pvt Ltd, Hyderabad



www.spguidepublications.com

SP GUIDE PUBLICATIONS

# Pratt & Whitney has played a significant role in India's aviation growth story

**Palash Roy Chowdhury,** Managing Director - India, Pratt & Whitney in conversation with **Neetu Dhulia** on the sidelines of Wings India 2018

**Neetu Dhulia (Dhulia): Briefly talk about Pratt & Whitney's over seven decades of association with India?**

**Palash Roy Chowdhury (Chowdhury):** Pratt & Whitney is part of United Technologies Corp., one of the world's largest suppliers of aerospace products, with an established presence in India. Offering engine solutions for over seven decades now, Pratt & Whitney has played a significant role in India's aviation growth story. The company's product suite includes large commercial engines, military engines, small jet and turboprop engines, and other general, regional and civilian powered flight engines.

The first Boeing 707-437 powered by Pratt & Whitney's JT3D engine was delivered to Air India in 1960. Air India was the first carrier in India to operate Pratt & Whitney's PW4000 100-inch engines powering an Airbus A330. There are well over 100 aircraft in India powered by V2500 engines made by Pratt & Whitney and International Aero Engines AG, a consortium in which Pratt & Whitney is a majority shareholder. The company is now delivering the PurePower® Geared Turbofan™ engines for Airbus aircraft ordered by airlines in India. There are also 10 C-17 military transport aircraft in India that are powered by Pratt & Whitney's F117 engines.

Most recently in October 2017, IndiGo, signed a 10-year engine maintenance contract for its ATR planes with Pratt & Whitney Canada. IndiGo has chosen ATR72-600 aircraft flying on regional routes in India, which will be powered in PW127M engines. The 10-year contract will be applicable from the date of each engine's entry into service and can be extended thereafter.

**Dhulia: How has been the response to your training centre in Hyderabad?**

**Chowdhury:** The response has been tremendous since its launch in September 2015. Post receiving certification from DGCA in April 2017 the training centre is now fully approved to offer DGCA-approved training sessions on V2500-A5 engines. It is also expected to offer courses on PW1100G-JM and other models from the Pratt & Whitney Geared Turbofan™ (GTF) family of engines soon. This Pratt & Whitney training center, established to address the shortage of a skilled work force in India's aviation industry, is only the third such Pratt & Whitney facility in the world. We have already provided more than 2000 student days training and are working closely with a number of universities and state governments to establish a robust aviation skill development platform in the country.

**Dhulia: What are the initiatives taken by Pratt & Whitney under the government's 'Make in India' initiative?**

**Chowdhury:** As a company that is deeply embedded in India, we firmly support the 'Make in India' campaign that has significantly provided impetus to India's economic growth since its launch. Today, the country is fostering a culture of innovation and technological advancements in all business spheres including aerospace and defence to make India self-sufficient in producing unique and advanced products and slowly reduce dependency on imports.

We source engineering and design services from a number of Indian companies, for some of its most advanced aerospace products. There are more than 1,000 engineers in India working on global projects for us. We have established a chair and a centre of excellence at the renowned Indian Institute of Sciences (IISC) focusing on high-end research in the area of turbo machinery.

We believe that 'Make in India' can only be successful if Skill India succeeds. Skill development will be a cornerstone of aviation growth. Companies like Pratt & Whitney are playing a significant role in this area. We have invested in a world class customer training centre that opened in 2015 in Hyderabad and received certification from DGCA in April 2017. We have already provided more than 2000 student days training at the center and are working with a number of universities and state governments to establish a robust aviation skill development platform in the country.

**Dhulia: Please comment on the recent restrictions imposed by EASA on A320neo operations over concerns of potential dual engine in flight shutdown?**

**Chowdhury:** This year at Wings 2018, we will showcase a scale-size model of Geared Turbofan™ (GTF) engine. Our booth will have a virtual reality section to give a boroscopic experience to the visitors along with the touch-screen displays demonstrating the technical aspects of GTF engine. International specialists will be present at the booth to give demos and presentations of Pratt & Whitney's equipment and products. We believe that Wings is a perfect platform for us to showcase our capabilities and also network with our customers, partners, etc.

**Dhulia: Please comment on the restrictions imposed by EASA on A320neo operations over concerns of potential dual engine in flight shutdown?**

**Chowdhury:** Pratt & Whitney has released a revised configuration as a solution to the issue relating to a knife edge seal on the High Pressure Compressor (HPC) aft hub which affected a limited subpopulation of the PW1100G-JM engine that powers the Airbus A320neo aircraft.

The solution is based on a design with which the company has significant experience, and this solution has received all necessary regulatory approvals. Pratt & Whitney has begun implementing this solution and production engine deliveries incorporating this change will begin in early March. The company will continue to work with Airbus and its mutual airline customers to minimise operational disruption.

Pratt & Whitney implemented an engineering change in mid-2017 that was intended to improve the durability of the knife edge seal for this engine. Engines that incorporated this engineering change entered revenue service on customer aircraft beginning in December 2017. In late January and early February of this year, four of these modified engines did not perform as anticipated.

The current population of impacted engines is 43 engines installed on 32 aircraft. There are also approximately 55 such engines delivered to the Airbus final assembly line awaiting installation on customer aircraft.

**Dhulia: What is your outlook for India in 2018?**

**Chowdhury:** The outlook for 2018 seems bright as we are excited to continue to deliver excellence with our broad range of products and services and meet customer needs to achieve long-term growth. The GTF program is continuing to attract new orders and is ramping up production deliveries, all while supporting a growing in-service fleet. It's the industry-disrupting technologies that set the GTF apart from its competition and allow its game-changing performance. We have invested more than 20 years in the engine, maturing 48 new technologies that enable its impressive results. To meet the production demands of a historic engine ramp, we have invested more than $1.3 billion in 21st Century, global production facilities to deliver the products quicker and with the highest quality.

We see a huge potential in India. As we move forward, we will continue to support the country with our powerful portfolio of products and services and the right combination of experience and advanced technologies.

**Dhulia: What is Pratt & Whitney's level of participation at Wings this year?**

**Chowdhury:** This year at Wings 2018, we will showcase a scale-size model of Geared Turbofan™ (GTF) engine. Our booth will have a virtual reality section to give a boroscopic experience to the visitors along with the touch-screen displays demonstrating the technical aspects of GTF engine. International specialists will be present at the booth to give demos and presentations of Pratt & Whitney's equipment and products. We believe that Wings is a perfect platform for us to showcase our capabilities and also network with our customers, partners etc. •

# HondaJet is a Game Changer

For nearly 70 years, Honda has been a trusted, respected and admired mobility company throughout the world. When Honda initiated research into an airplane, a dream of founder Soichiro Honda, the company decided to devote the time and resources to develop an aircraft completely from scratch, rather than implementing incremental changes to technology used by others. More than two decades ago, Honda Aircraft Company's president and CEO Michimasa Fujino sketched out his first concepts of the HondaJet. The clean-sheet aircraft was designed to provide the customer the best possible value by utilising cutting-edge technology, making Honda's dream of taking personal mobility skyward a reality.

The most visible of the technologies incorporated on the HondaJet is the Over-the-Wing Engine Mount (OTWEM). This approach strays from the conventional rear fuselage mounted engines. The aircraft's design also features a newly developed natural laminar flow (NLF) wing and fuselage nose, which reduces aerodynamic drag. Additionally, unlike many jets that use aluminum, the HondaJet uses a lighter yet stronger composite fuselage, engineered by Honda, created from a combination of integral stiffened panel structure and honeycomb sandwich structures. Certified for single pilot operation, the cockpit features a Honda-customised Garmin G3000, a next-generation, all glass avionics system with touch screen technology that offers the pilot enhanced navigation, flight planning and control.

The technologies utilised on the HondaJet are significant aeronautic breakthroughs engineered by Mr. Fujino and Honda after nearly 20 years of extensive research and development. These innovations contribute to the aircraft's superior performance and unparalleled efficiency, allowing the HondaJet to fly faster (422 knots) and cruise higher (43,000 ft) than any other jet in its category. They also maximise available fuselage space with comfortable seating for up to seven passengers including a pilot and a fully private lavatory, making the HondaJet's cabin and baggage capacity the largest in its category. Additionally, the aircraft's cockpit and avionics suite is based on an ergonomic design and enhanced situational awareness, allowing the pilot more space and greater visibility.

The technological advancements offered by the HondaJet provide corporate owners with the most productive, efficient and innovative business jet on the market. GE Aviation incorporated HondaJets into their corporate fleet and found that the HondaJet was a productivity tool for their corporation as many of their manufacturing sites cannot be reached directly by commercial airlines. They were able to take day trips to these locations and reduce travel expenses. GE Aviation's experience is just one example of how HondaJets are changing the game for large organisations.

The HondaJet is also setting the standard for personal business jet usage. Hoteliers Julian and Kim MacQueen are owner-operators of their HondaJet and recently completed their "Around the World in 80 Stays" flight, where they travelled the world for inspiration for their business, Innisfree Hotels. The MacQueens visited 30 countries and traveled more than 28,000 nautical miles, setting several speed records and experiencing outstanding dispatch reliability during their trip. They were able to conveniently experience new places to gain more knowledge of the hospitality industry in areas not easily accessed through direct commercial flights. Following their trip around the world, they use their HondaJet to travel to daytime business meetings and return in time to enjoy their evenings.

What began with one engineer's dream and a pencil sketch is now a state-of-the-art aircraft production company manufacturing the most technologically advanced light jet. A proven industry disruptor, the HondaJet was the most delivered aircraft in its category in 2017, has broken 13 speed records and has been certified and delivered in countries around the globe. The combination of Honda's powerhouse reputation, Mr. Fujino's passion for innovating cutting-edge technologies and a commitment to ensuring no small detail is overlooked makes the HondaJet a game changer in business aviation.

Come, experience the HondaJet and learn how it could change your life by visiting the display at Begumpet Airport in Hyderabad during Wings India. •

## HondaJet Backgrounder

**BACKGROUND:**
The HondaJet HA-420 is an advanced light jet with revolutionary technology and design attributes that help it achieve far better fuel efficiency, more available cabin and luggage space, higher cruise speed and higher operating altitude than conventional aircraft in its class. The HondaJet is certified in the United States (FAA), Mexico (DGAC) Europe (EASA), Canada (Transport Canada) and Brazil(ANAC). The aircraft is certified for single pilot operation.

**HONDAJET ADVANCED TECHNOLOGIES:**
The HondaJet design incorporates a number of innovations that were developed through extensive research conducted by Honda. These include the patented HondaJet Over-The-Wing Engine Mount (OTWEM) configuration, Natural Laminar Flow wing and nose, and composite fuselage structure.

These advanced technologies allow the HondaJet to achieve the highest speed (422 knots at FL300), highest altitude (43,000 feet), and best fuel efficiency (approximately 15 per cent for a typical mission) in its class.

A patented Over-The-Wing Engine Mount (OTWEM) configuration was developed using advanced concepts in aerodynamics and design simulation. The OTWEM configuration eliminates the carry-through structure of conventional fuselage-mount designs, allowing for greater use of fuselage space for the cabin and external cargo areas. The configuration is also designed to reduce cabin noise. By optimisation of the design and placement of the engine nacelles, the HondaJet OTWEM configuration actually exhibits less drag at high speeds than conventional "clean wing" designs, contributing significantly to the aircraft's superior performance and efficiency.

A Natural Laminar Flow (NLF) wing and fuselage nose were developed through extensive analyses and wind tunnel testing. These designs help achieve lower aerodynamic drag at high speeds together with a high lift coefficient.

An advanced composite fuselage structure, consisting of a unique combination of honeycomb sandwich and stiffenedpanel structures. The structure is joined using a patented integral co-curing process that reduces weight for optimal performance and payload capacity, while also reducing manufacturing complexity.

Honda partnered with Garmin to develop the first highly customised and highly automated avionics suite. HondaJet has a sophisticated flight deck with three 14-inch landscape displays and two touchscreen controllers that allow pilots enhanced navigation, flight planning and system control.

**BASIC DESIGN SPECIFICATIONS:**
Maximum Cruise Speed @ FL300
422KTAS (486 mph)
Maximum Cruise Altitude FL430
(43,000 ft)
Pressurisation (Differential) 8.6 psi
**Range Performance:** NBAA IFR
Range (4 occupants) 1223 nm
Rate of Climb 3,990 ft/min
**Engines:** Manufacturer / Model GE HONDA / HF120 (x2)
Output (Uninstalled) 2050 lbf/each – derated from 2095 lbf/each
Bypass Ratio 2.9
**External Dimensions:**
Height 14.90 ft (4.54 m)
Length 42.62 ft (12.99 m)
Wing Span 39.76 ft (12.12 m)
**Cabin Dimensions:**
Height 4.83 ft (1.47 m)
Width 5.00 ft (1.52 m)
Length (Fwd. pressure bulkhead to aft pressure bulkhead) 17.80 ft (5.43 m)
**Seating:**
Typical Configuration 1 crew + 5 passengers (2 crew + 4 passengers)
Alternative Configuration 1 crew + 6 passengers (2 crew + 5 passengers)
**Baggage Capacity:**
Nose Baggage Compartment 9 cubic feet (0.25 cubic metres)
Aft Baggage Compartment 57 cubic feet (1.61 cubic metres) •

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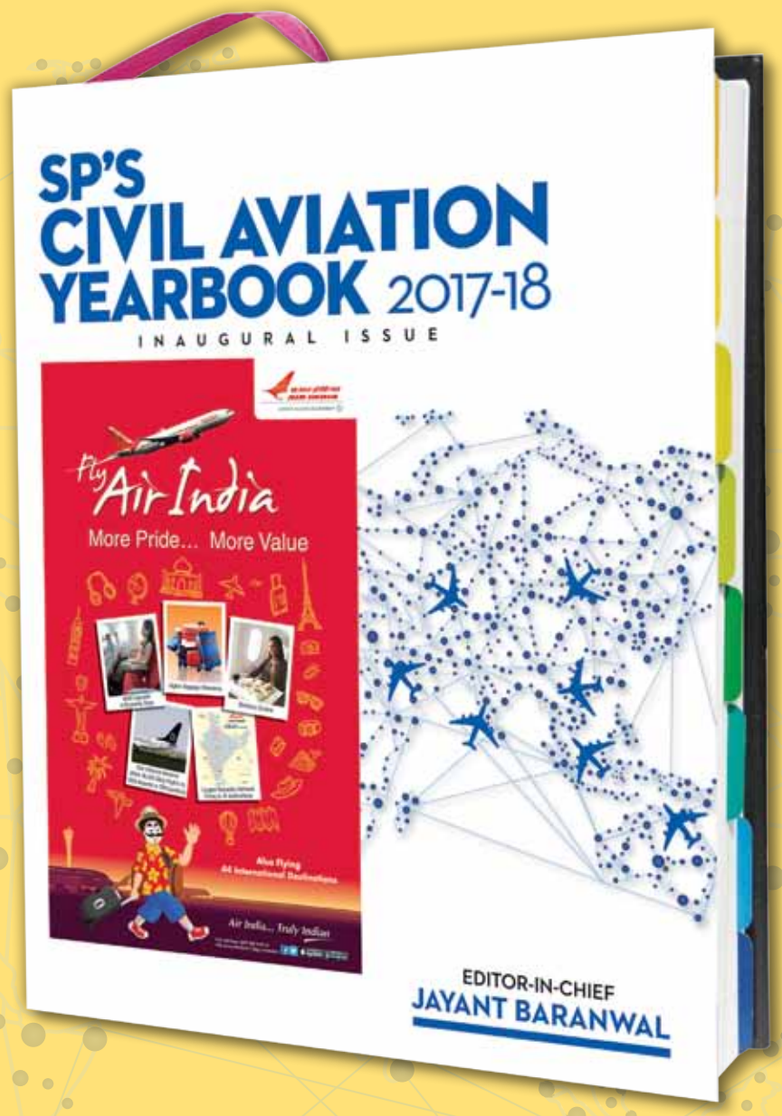


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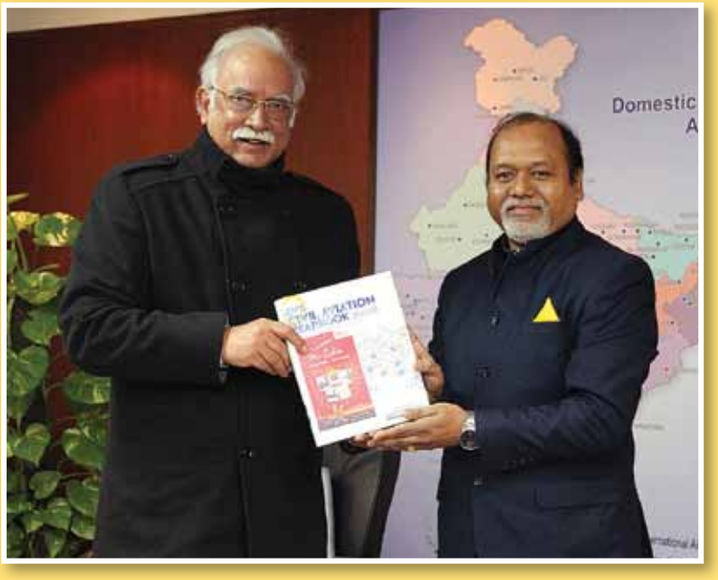


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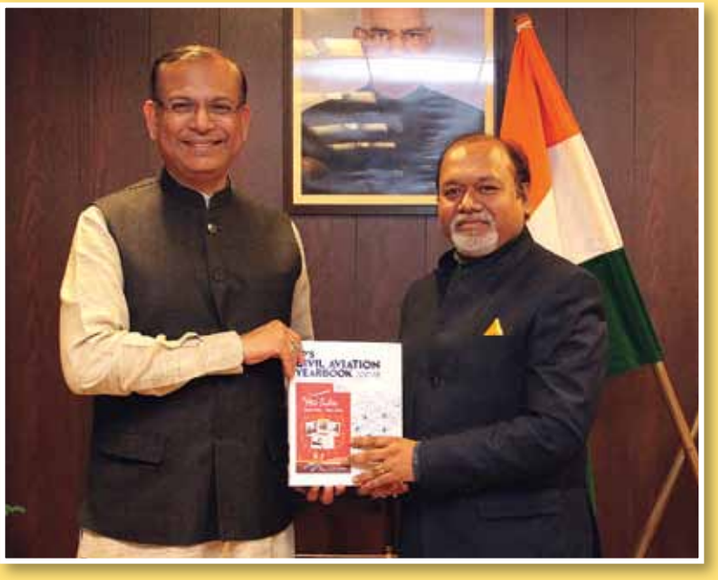


**Minister of State for Civil Aviation Jayant Sinha** receiving a copy of ***SP's Civil Aviation Yearbook*** from Publisher and Editor-in-Chief of SP Guide Publications Jayant Baranwal.

# TESTIMONIALS

"Finally it has arrived."
**— P. Ashok Gajapathi Raju, Union Minister of Civil Aviation**

"It's a Handy Book."
**— Jayant Sinha, Minister of State for Civil Aviation**

I am in receipt of the SP Guide Publications' Inaugural Issue of Civil Aviation Year Book 2017-18. The diagonal flip-through assured me of the quality of the publication and the assurance to be a resourceful reading. Thanks for sending me a copy of the Issue.
**— S. Raheja, Member (Planning), Airports Authority of India**

The yearbook is excellent. Kudos to you and your team!
We finally have a world class yearbook on our cherished civil aviation sector... The role of the media is key in shaping public policy, highlighting success stories and pointing out areas of improvement. We appreciate the marvelous job done by SP Publications over decades.
We wish you the very best!
**— Amber Dubey, Partner and Head, Aerospace and Defense, KPMG in India**

# Falcon 8X to Make First Appearance


Dassault Aviation will showcase the ultra long-range Falcon 8X at Wings India 2018. It will be the first appearance of the 6,450 nm/11,945 km trijet at this prestigious event, which opens on March 8 at Hyderabad Begumpet Airport.

The inaugural Falcon 8X presentation comes just as Dassault is introducing into the market a new ultra wide body twinjet, the Falcon 6X. Unveiled on February 28, the 6X will be the most modern, spacious and versatile twin in the 5,000 nm segment and will draw on many of the advanced features of the 8X, in particular its ultra quiet cabin.

The first Falcon 8X was handed over to an Indian customer early last year and is now in operation in all major markets.

With 26 Falcon aircraft currently in service, Dassault is the large cabin market leader in India, where the company has long enjoyed a strong brand image, in part thanks to the Indian Air Force's (IAF) long reliance on Dassault combat aircraft. A relationship that dates all the way back to 1953 and has continued without interruption ever since, culminating in 2016 with the IAF's acquisition of a batch of 36 frontline Rafale fighters.

The relationship received a further boost last October when a joint-venture created by Dassault Aviation and Reliance Aerospace Limited broke ground on a new production plant in Nagpur, Maharashtra. To be ready by the end of 2018, the facility will manufacture parts and component subassemblies for the in-production Falcon line and then move on to assemble Falcon as well as Rafale fighters.

"The unmatched ability of Falcons to combine short and long haul flights and fly out of short hard-to-reach airstrips with full range performance – even at high altitudes and extreme temperature conditions – make them perfect for Indian operating conditions," said Dassault Aviation Chairman/CEO Eric Trappier. "No other business jet line is more suited to local requirements."

### REINFORCED SUPPORT NETWORK

Dassault continues to reinforce its regional support presence. This year, the company is adding Mumbai to its list of Falcon regional maintenance and operation seminars, which allows customers to meet face to face with company and supplier representatives.

Dassault also has authorised service centre agreements in India involving Taj Air, for the Falcon 2000 series, and Air Works India, for the Falcon 900EX/LX line. Both of these operations are located in Mumbai and supported by satellite facilities around the country. The regional fleet is also backed up by a spares warehouse in Mumbai and offshore facilities in Dubai, Kuala Lumpur, Singapore and Paris-Le Bourget.•

## Wings India 2018

Theme: 'India: Global Aviation Hub'

| Flow of Events | |
|---|---|
| **Thursday, March 8, 2018** | |
| **Time** | **Event** |
| 1000 – 1055 Hrs | Inauguration Ceremony |
| 1055 – 1115 Hrs | Exhibition Inauguration by dignitaries and visit to the exhibition. |
| 1115 – 1230 Hrs | CEOs Forum (Closed door) |
| 1230 – 1300 Hrs | Media Briefing |
| 1300 – 1400 Hrs | Lunch |
| 1430 – 1800 Hrs | G2B meetings (States and Airlines, Industry and Stakeholders) |
| 1500 – 1700 Hrs | Roundtable on General Aviation |
| 1900 – 2000 Hrs | WINGS INDIA Awards Ceremony at Taj Krishna, Hyderabad |
| 2000 Hrs | Networking Dinner at Taj Krishna, Hyderabad |
| 1000 – 1800 Hrs | Exhibition open for Business Visitors |
| **Friday, March 9, 2018** | |
| 1030 – 1200 Hrs | Roundtable on Tourism and Civil Aviation |
| 1200 - 1330 Hrs | Roundtable on Skills and Training |
| 1330 – 1430 Hrs | Lunch |
| 1430 – 1600 Hrs | Roundtable on Cargo and Logistics |
| 1000 – 1800 Hrs | G2B meetings (States and Airlines, Industry and Stakeholders) |
| 1000 – 1800 Hrs | Exhibition open for Business Visitors |
| **Saturday and Sunday, March 10-11, 2018** | |
| 1000 – 1800 Hrs | Exhibition open for Students, Aviation institutes and General Public |

**Tentative Programme*

## Aircraft on Static Display

| Name of aircraft | No. of aircraft |
|---|---|
| **Phenom 300/Legacy 500** from Embraer Executive Aircraft | 2 |
| **Falcon 8X** from Dassault Aviation | 1 |
| **G650ER, CAT C** from Gulfstream Aerospace Corporation | 1 |
| **HondaJet** from Honda Aircraft Company | 1 |
| **Hansa 2 seater** from National Aerospace Laboratory | 1 |
| **Glider** from The Navy Blue Foundation (Aerotech FM) | 1 |
| **ATR 72-600** from Turbo Megha Airways Pvt. Ltd. | 1 |
| **Cessna 182T** from Blue Ray Aviation Private Limited | 1 |
| Pawan Hans Ltd. | 1 |
| Air India | 1 |
| **Dornier** from the Hindustan Aeronautics Limited | 2 |

# Gulfstream G650ER: High Performance Jet

The popularity of the ER aka Extended Range version of Gulfstream's flagship G650 is evident from its customer waiting list that stretches into 2018 and the mini-furore caused at whichever aviation show it happens to be exhibited at. While present owners of the G650 can upgrade to the G650ER at a cost of about $2 million, the latter is said to be priced around the $60-70 million ballpark.

Certified in 2014, the G650ER is touted as industry's highest performance long-range business aircraft to fly 7,500 nautical miles/13,890 km at Mach 0.85 and can seat an entire cricket team plus seven more. At its maximum takeoff weight, it can climb to 41,000 ft in just 22 minutes, surpassing bad weather and crowded commercial jet routes. Not only speed, the jet's cabin merges aesthetics with functionality with a feature to replenish the cabin's air every two minutes to produce cabin pressure closer to the air at sea level than any jet in its class. In a nutshell, being in a G650ER cabin is like breathing air at 4,000 ft helping to keep your blood oxygenated and reduce fatigue.

Not entirely an open cabin concept, the G650ER smart, ultra long cabin has four versatile living areas that allow for seamless transitions between work, entertainment and rest. Apart from the wide handcrafted seats, diwans and generous aisle spaces, the Gulfstream Cabin Management System lets passengers control temperature, lighting, window shades and entertainment devices with Apple iOS or Android smartphones and tablets. The company website says 'the sense of spaciousness is further enhanced by 16 Gulfstream panoramic windows, the largest in the industry, that stream sunlight into the cabin and galley.' •

*—Arpita Kala*

# 'We are excited by the wonderful opportunities presented by the world's fastest growing aviation market and are keen to play a significant role.'

**Ewen McDonald**, Senior Vice President, Customers & Services – Asia Pacific, Rolls-Royce

***SP's ShowNews* (SP's): What's the significance of participating in WINGS India 2018?**
**Ewen McDonald (McDonald):** We are excited by the wonderful opportunities presented by the world's fastest growing aviation market and are keen to play a significant role. Wings India 2018, the premier civil aviation event in the country gives us an opportunity to meet potential customers and key stakeholders and showcase our more efficient, reliable and cleaner portfolio of products and solutions. In line with our vision to pioneer the power that matters to our customers, we're showcasing our cleaner and more fuel-efficient range of Trent aero engines – including the Trent 1000, Trent XWB and Trent 7000, which power leading widebody aircraft and are ideal to support the ever-increasing passenger volumes in India's aviation sector.

**SP's: What are your views on India's growing aviation market?**
**McDonald:** India is the 3rd largest and the fastest growing domestic aviation market in the world witnessing phenomenal growth in passenger traffic and this is expected to continue. To address the increased growth in passenger traffic, many Indian airlines are embarking on ambitious fleet expansion plans and seeking to induct widebody aircraft. This presents us with tremendous opportunities to play a significant role in India's aviation sector. With our technology leadership and our determination to pioneer the power that matters to our customers, we are well-positioned to support India's civil aviation growth with more efficient, reliable & cleaner portfolio of products and solutions.

**SP's: What are the main advantages of deploying widebodies to manage India's growing air traffic?**
**McDonald:** For an industry that is as competitive as aviation, there is an ever-increasing focus by airline companies on improving operational efficiency. Deploying widebody aircraft can lead to higher market share, load factors and revenues for airlines. On domestic routes, widebody aircraft prove to be a high-yield option for airlines, providing carriers more revenue per available seat mile. Improved fuel-efficiency not only reduces costs for airlines, and thus passengers, but it also contributes significantly to reducing the aerospace industry's environmental footprint.

Furthermore, widebodies provide a significant advantage at airports with restricted infrastructure, enabling airlines to carry more passengers to airports with limited slots. Airlines can also take advantage of their widebodies to free up a substantial amount of narrowbody fleets which can be used on newly opened regional routes. Additionally, widebody aircraft offer airlines the opportunity to offer the highest standards of passenger comfort and an optimal experience through better value-added services and more deck space for airlines to implement in-cabin features – something that is becoming a deciding factor in passengers' airline choices.

**SP's: What benefits do Rolls-Royces' Trent engines bring to the market?**
**McDonald:** One of the top challenges for today's aviation sector is to move towards more efficient products and solutions so that our customers can provide a cleaner, more efficient and reliable experience to travellers. Our Trent engines powering leading widebody aircraft are much more fuel-efficient, cleaner and quieter, allowing airlines to improve operational efficiency.

With a strong track record of delivering outstanding performance and reliability, we believe our Trent engines are the ideal choice to meet the requirements of India's ever-increasing passenger volumes.

**Trent 7000:**
- The Trent 7000 is not only 6dB quieter than the 700 model; it also features a 10% specific fuel consumption improvement.
- The engine delivers revenue benefits on even the toughest routes, thanks to its high thrust.

**Trent 1000:**
- The latest version of the Trent 1000 incorporates technologies from the Trent XWB and Advance engine programmes contributing to the Dreamliner achieving a 20 per cent greater efficiency than the aircraft it replaces, as well as having half the noise footprint of previous-generation aircraft.
- The engine incorporates new technologies to deliver increased thrust for the aircraft.

**Trent XWB:**
- The Trent XWB is world's most efficient large aero engine flying today, and includes advanced materials and the latest fan system technology.
- It balances fuel efficiency and life cycle costs while delivering weight savings and improved aerodynamics.
- The Trent XWB is also the fastest selling widebody jet engine ever, with over 1,700 engines ordered by 45 customers. •

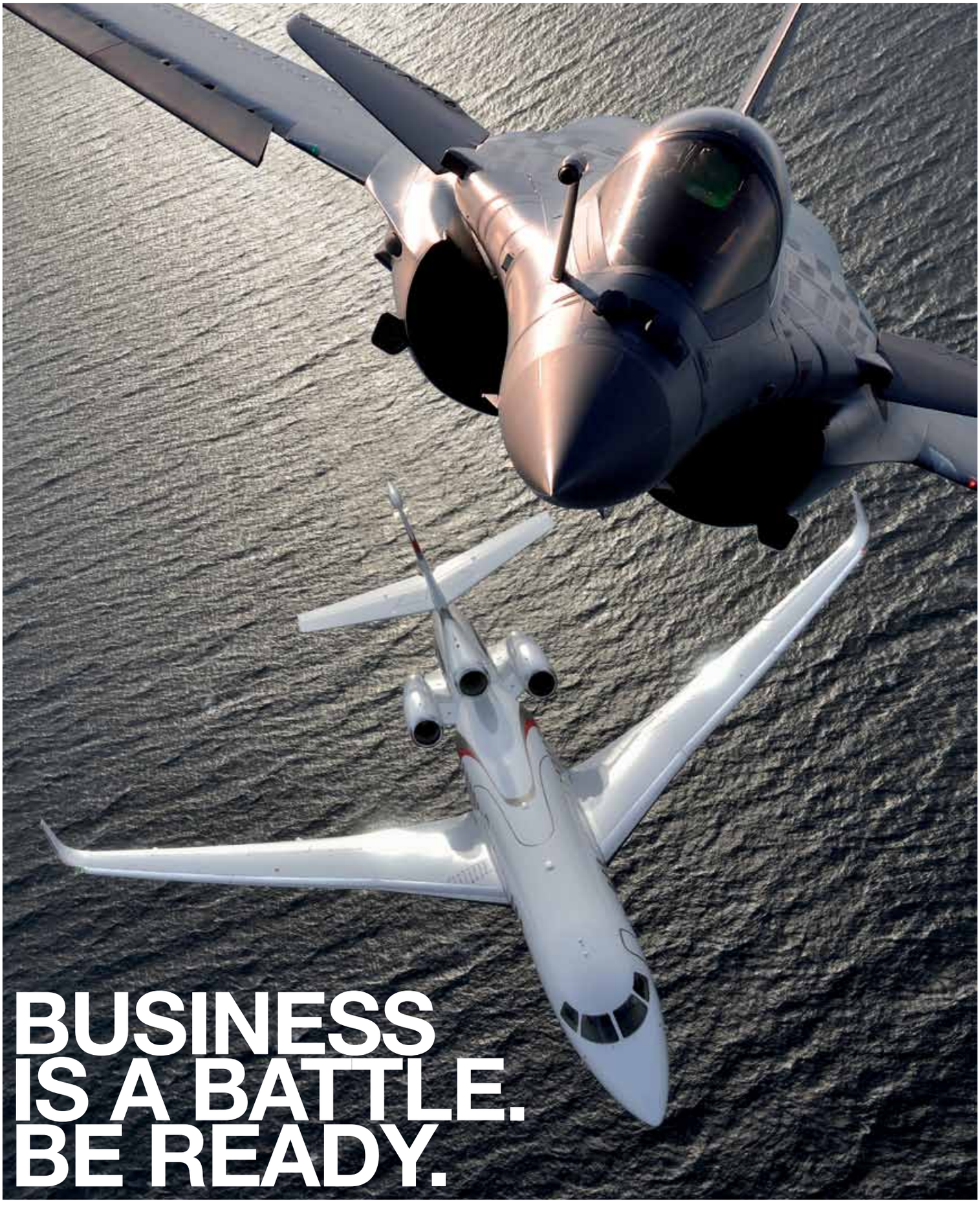
## Rolls-Royce Showcases Cleaner & More Efficient Power for Customers

Rolls-Royce is pioneering the power that matters so that its customers can give a cleaner, more efficient and reliable experience to travellers. At Wings India 2018, Rolls-Royce is showcasing its latest Trent aero engines including the Trent 7000, Trent 1000 and Trent XWB which offer the very latest in aero engine technology delivering fuel efficiency and environmental performance. The Rolls-Royce booth (Hall A Booth 31) also features a visualisation of a Carbon Titanium (CTi) fanset being developed for Rolls-Royce's next generation UltraFan® engines, and a quarter scale model of Trent 7000 engine that exclusively powers the new Airbus A330neo, along with interactive audio-visual content.

Ewen McDonald, Rolls-Royce, SVP, Customers and Services (APAC) – Civil Aerospace, said: "With rapid growth in India's civil aviation industry, we expect a significant demand for widebody aircraft by airlines. Our Trent engines powering leading widebody aircraft are much more fuel-efficient, cleaner and quieter than previous engines, allowing airlines to improve operational efficiency as well as offer better passenger experience. In line with our vision to pioneer the power that matters to our customers, we are well-positioned to offer our strong portfolio of more efficient and cleaner products and solutions and play a key role in India's growing aviation sector."

India's domestic air traffic nearly doubled to 117 million passengers in 2017 compared with 67 million in 2011, driven by a strong economy and low-fares and most airlines are pursuing expansion plans to support this rapid growth. Rolls-Royce, which early in the next decade expects to power more than 50 per cent of in-service widebody passenger aircraft, has a strong track record of supporting airlines' growth and helping them transition from narrowbody to widebody fleets.

In India, Rolls-Royce has been steadily building its capabilities across engineering, manufacturing, supply chain, digital and customer support to support local growth. The Aerospace Engineering Centre in Bengaluru contributes to global aerospace engine programmes. Rolls-Royce's R2 Data Labs set up a facility in Bengaluru last year, develops data applications that unlock design, manufacturing and operational efficiencies and creates new service propositions for customers. A strong commitment to India enables Rolls-Royce to offer the right combination of experience and new technologies towards India's growth ambitions. •




In nature, the falcon is a fierce fighter. In business, the Falcon 8X is just as powerful and agile. Every inch reflects its military DNA, with lean and mean aerodynamics and advanced Digital Flight Controls to get you to places others can't. Nothing flies like a Falcon because no other jet is built like one. **Fierce. Fast. Agile. Falcon 8X.**

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# HondaJet is thankful to be the most delivered jet in its category in 2017.

No.1 DELIVERIES 2017

With the accolades and accomplishments collected over the years, we are proud to announce yet another milestone: the HondaJet is the most-delivered jet in its category in 2017. This deserves extending our thanks to all who had the vision to make this possible, including our customers who we are proud to have welcomed into the HondaJet family over the past year. And now we look forward to 2018.

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