Speedi

Wings & Wheels

GreatestAutos- GreatestPlanes - GreatestRaceCars

www.speedi.tv

February / March 2021

Issue No: 54

News Events Features Show Reports

NEW FORMAT

SEE PAGE 2

Best viewed as Full Size Single Page

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THIS MONTH: ROAR 2021 Rolex 24 HR Thunderbirds and Much More

SPEEDI'S BLOG

Welcome to Speedi's Blog.

The video format announced in the last issue of Speedi Wings & Wheels has been working well, particularly through the SpeediStevie youtube channel, where subscriber numbers are increasing - but we need many more - so please SUBSCRIBE.

As a result I've decided to concentrate all the videos onto the SpeediStevie channel.

I've also incorporated some new youtube playlists from speedistevie into the Speedi Wings & Wheels Magazine, as you will see from the front page titles. These are Greatest Autos, Greatest Planes and Greatest Race Cars.

The reason being, that these subjects are where the greatest views come from. This is particularly true of the

Greatest Race Cars playlist where the video above received over 4000 views in less than a week.

Take a look at the next page for links to the 3 speedistevie playlists mentioned above.

Since the last issue of Speedi Wings & Wheels I've been spending the majority of my time posting videos onto my speedistevie youtube channel.

They have been both videos I have accumulated over the years and never got round to posting, as well as recent videos which have attracted my attention.

The big problem I've got in getting speedistevie up and running is attracting subscribers. The reason is simple - to subscribe you need a gmail email account, and of course not everyone has one. It so simple to get one and have it as a standby email address, directing any messages automatically to your main email address.

So if you do not have a gmail account right now, then please get one and subscribe to my speedisteve youtube channel. It would be greatly appreciated.

So which videos have attracted me recently?

One is of a Pilatus PC-24 landing at a small grass strip in Tasmania. The strip is just over 4000ft long but the Pilatus only uses a fraction of the runway. It certainly supports its claim as THE Super Versatile Jet.

But what other videos have attracted my

attention?

There were a couple of videos from Aer Lingus. One showing its historic DC-3 which had just been restored:

Then there was the inaugural flight from Dublin to LAX with an all female flight crew flying Aer Lingus's A330.

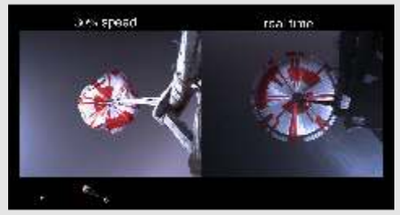
British Airways has produced a wealth of video material which is of interest to aviation enthusiasts. The one

above is a video showing their last two B-747 jets flying out of London Heathrow, for the very last time.

Why, you may wonder?

The answer is they are no longer economical. Before Covid-19 British Airways had the largest B-747 fleet in passenger service. It had planned to retire this model in 4 years time, as by then they would have taken delivery of enough Airbus A350 models to replace those being retired. Covid-19 brought this retirement forward by 4 years and the Queen of the Skies no longer will fly in British Airways colors.

Now to the NASA Mars mission, with their Perseverance Rover. This mission has been an outstanding success. Ultra HD video footage has been streamed back to earth showing the



landing from around 12 km, right to the ground. There were several cameras capturing this stunning footage. What a fantastic achievement.

On the auto scene, the big news was the launch of McLaren's latest hybrid supercar, the Artura.

I have posted two videos about the Artura. The link above is to the launch video. The link below is to a technical video, all about how the Artura has been developed.

So that's it for this Speedi's Blog. Just remember to subscribe to my speedistevie youtube channel . . .

SPEEDISTEVIE

PLAYLISTS

Remember
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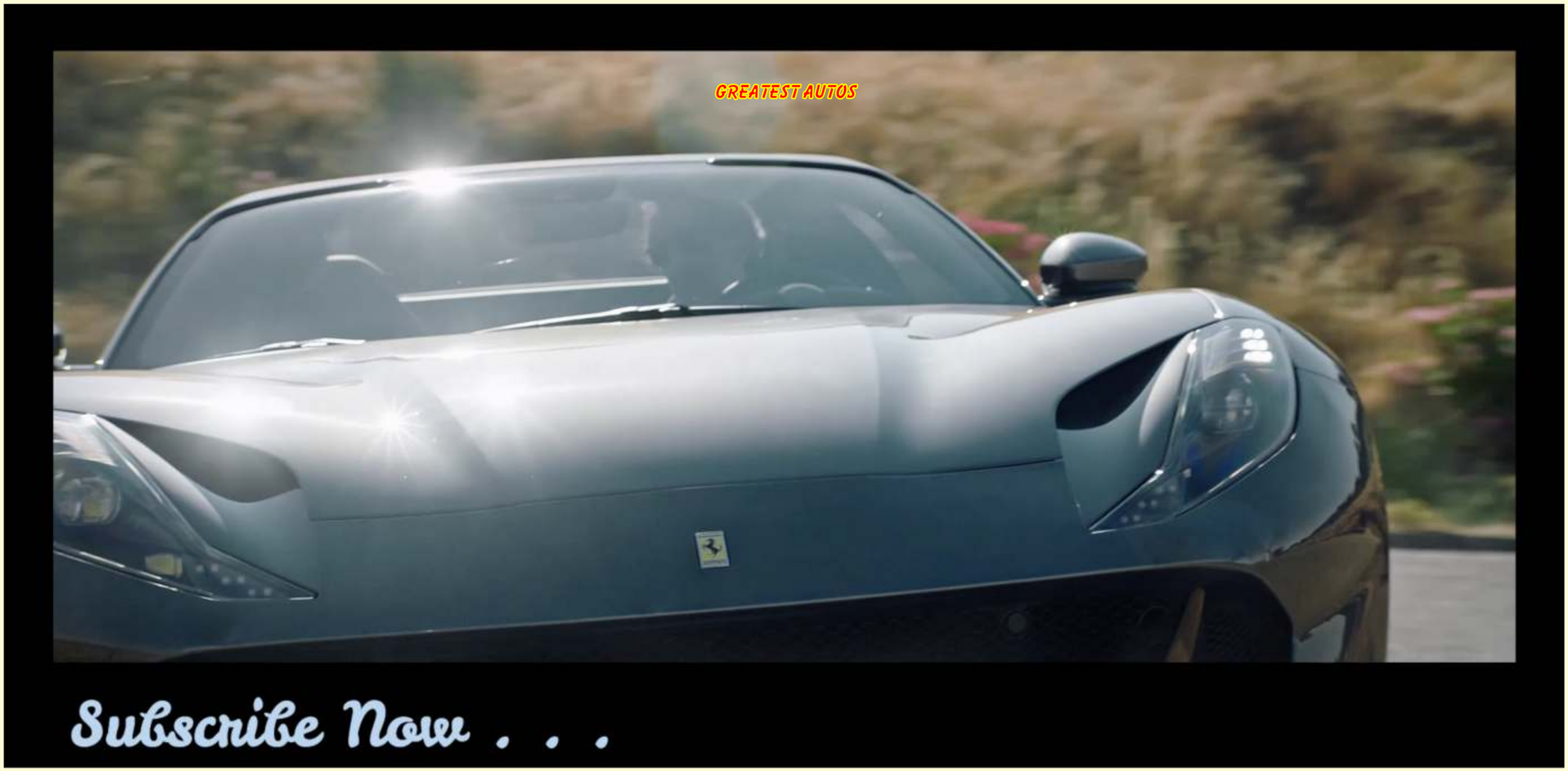

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NASA's Mars Mission

High-Resolution Still Image of Perseverance's Landing:

This is a high-resolution still image, part of a video taken by several cameras as NASA's Perseverance rover touched down on Mars. A camera aboard the descent stage captured this shot. Credit: NASA/JPL-Caltech.

To view a UHD video of the actual landing click HERE

The Important Details:

We are happy to accept photographs and articles by email at news@speedi.tv with a view to including them in Speedi Wings & Wheels. However, all submissions are sent at the contributors own risk and Speedi Wings & Wheels will not be liable for any loss or damage, however caused. See also Privacy and Terms & Conditions on the Speedi Wings & Wheels website

Editorial Team: North America Editor – Steve Wood West Coast Contributors - Jim (Flybum) Pratt, Tim Sowell Canada - Jim Swan Cruisin' & Hot Rod's - Gary Rosier UK Team - The Gremlins at Kew

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Boeing 737 Max - Back in Business

Boeing Photo

Editorial

Welcome to the February - March 2021 issue of *Speedi Wings & Wheels.*

Take a look at our 'Content's page to find out more about what's in this issue. The magazine is published bi-monthly during the last week of February, April, June, August, October and December.

In this issue we are featuring the Rolex 24 hr Race - Plus much more . . .

Take a look at the next page - the magazine index - for more details

Blue Sky's and Safe Flying.

The Speedi Team

Speedi Wings & Wheels is a wide screen format magazine
Best viewed in full screen single page HD mode

February - March 2021 - Issue No: 54

8 Rolex 24 hr Race - 2021

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CONTENTS

Regular Features:

Atlas Air Worldwide Purchases Four Boeing 747-8 Freighters

Freighters to add additional capacity to meet growing e-commerce and express cargo demand

Order will complete production of the 747-8 in 2022

SEATTLE, Jan. 12, 2020 – Boeing [NYSE: BA] and Atlas Air Worldwide today announced an agreement to purchase four 747-8 Freighters. The order enables Atlas Air to leverage the operational advantages of the 747-8 Freighter to meet growing cargo demand around the globe.

"The 747-8F is the best and most versatile widebody freighter in the market, and we are excited to bolster our fleet with the acquisition of these four aircraft," said John W. Dietrich, Atlas Air Worldwide President and Chief Executive Officer. "This significant growth opportunity will enable us to capitalize on strong demand and deliver value for our existing and prospective customers. The efficiency and capability of the 747-8F further complements our longstanding focus on leading edge technology. Dedicated freighters – like those operated by our Atlas, Polar and Southern subsidiaries – will continue to be in demand as the global airfreight market, particularly the e-commerce and express sectors, continues to grow."

With a maximum payload capacity of 137.7 metric tonnes (137,750 kg), the 747-8 Freighter allows customers to access 20% more payload capacity while using 16% less fuel compared to previous-generation 747s. The jet also features 30% quieter engines. The 747-8 airplanes in this agreement will be the final four aircraft to roll off the production line in Everett, Washington.

"The 747 will forever hold a special place in aviation history and we are honored by Atlas Air's longstanding commitment to the airplane. Atlas Air began operations 28 years ago with a single 747 and it is fitting that they should receive the last 747 production airplanes, ensuring that the 'Queen of the Skies' plays a significant role in the global air cargo market for decades to come," said Stan Deal, president and chief executive officer of Boeing Commercial Airplanes. "With the global air cargo fleet expected to grow by more than 60% over the next 20 years, we look forward to delivering these airplanes and supporting Atlas Air's Boeing fleet well into the future."

Atlas Air has 53 747s in its current fleet, making it the largest 747 operator in the world. Its world-class fleet also includes 737s, 767s and 777s. The 747 and 777 models, in particular, are capable of carrying tall and outsized cargo loads on 3-meter-high (10-foot-tall) pallets. This common main-deck pallet height supports interchangeable pallets, adding to the versatility of both models.

Boeing, the market leader in air cargo aircraft, provides more than 90% of the dedicated freighter capacity around the world, including new production and converted freighters. The 747 program has produced 1,560 aircraft since launching the jumbo jet more than 50 years ago. In July 2020, Boeing announced its decision to complete production of the 747-8 in 2022.

Alaska Airlines Boosts 737 MAX Orders and Options to 120 Jets

Transformative' agreement gives leading U.S. airline scale and flexibility to grow as traffic returns Alaska says new order is a move toward a more efficient, all-Boeing mainline fleet

SEATTLE, Dec. 22, 2020 - Boeing [NYSE: BA] and Alaska Airlines announced that the carrier is buying 23 more 737-9 airplanes, building on its original order and an agreement last month to acquire new 737-9s through lease. The new deal brings Alaska Airlines' total 737 MAX orders and options to 120 airplanes, which will give the fifth largest U.S. carrier the scale, efficiency and flexibility to expand as air travel recovers.

"We are extremely proud to be announcing this transformative agreement with Boeing," said Brad Tilden, CEO of Alaska Air Group. "We believe in this airplane, we believe in our strong partnership with Boeing, and we believe in the future of Alaska Airlines and the incredible opportunities ahead as we climb our way out of this pandemic."

Alaska Airlines, a longtime Boeing 737 operator, placed an order for 32 737-9 jets in 2012 as part of its fleet modernization program. The 737-9 is a member of the 737 MAX family that is designed to offer more fuel efficiency, reliability and flexibility in the single-aisle airplane market. Last month, Alaska Airlines announced it is expanding its commitment to the 737 MAX program by leasing 13 new 737-9s while selling some A320 jets it had taken on through its acquisition of Virgin America.

The new agreement announced today will add 23 firm orders for the 737-9 and more options for future purchases. In all, Alaska will have 52 options which, if fully exercised, would take the carrier to as many as 120 737 MAX airplanes. The airline said the deal moves it toward a more efficient, all-Boeing mainline fleet that will "enhance the guest experience, improve operational performance and support the company's growth."

"We could not ask for a better partner than Boeing and we are delighted to be standing side by side with them as we work together to get our economy back on its feet," said Tilden.

Alaska Airlines and Boeing leaders announced the agreement during a signing ceremony at Boeing's delivery facility in Seattle, flanked by a new 737-9 that will be among the first such jets to be operated by Alaska Airlines. In observance of COVID-19 restrictions, both companies limited attendance at the event and addressed the pandemic that has severely affected air travel, expressing confidence in the fundamental strength of the industry and long-term passenger demand.

"Alaska Airlines has done a tremendous job of weathering the impacts from the COVID-19 pandemic, and is well positioned to return to its growth trajectory and strengthen its standing as one of the top U.S. airlines. With Alaska's industry-leading reputation for safety, sustainability and customer service, we are honored they have chosen to invest in their future with a significant purchase of additional Boeing 737 airplanes," said Stan Deal, president and CEO of Boeing Commercial Airplanes. "We are grateful for Alaska's trust and partnership. Our team is focused on delivering their first 737 MAX jets and helping ensure a safe and seamless entry into service."

Alaska Airlines says the 737 – equipped with new, more fuel-efficient engines and improved aerodynamics – will use 20% less fuel and reduce emissions by 20% per seat compared to airplanes it replaces. The airline will configure the jet with 178 seats in a three-class configuration. The plane can fly 3,550 nautical miles, about 600 miles more than its predecessor. This additional capability will allow airlines to offer new and more direct routes to passengers. Every airplane will feature the new Boeing Sky Interior, highlighted by modern sculpted sidewalls and window reveals, LED lighting that enhances the sense of spaciousness and larger pivoting overhead storage bins.

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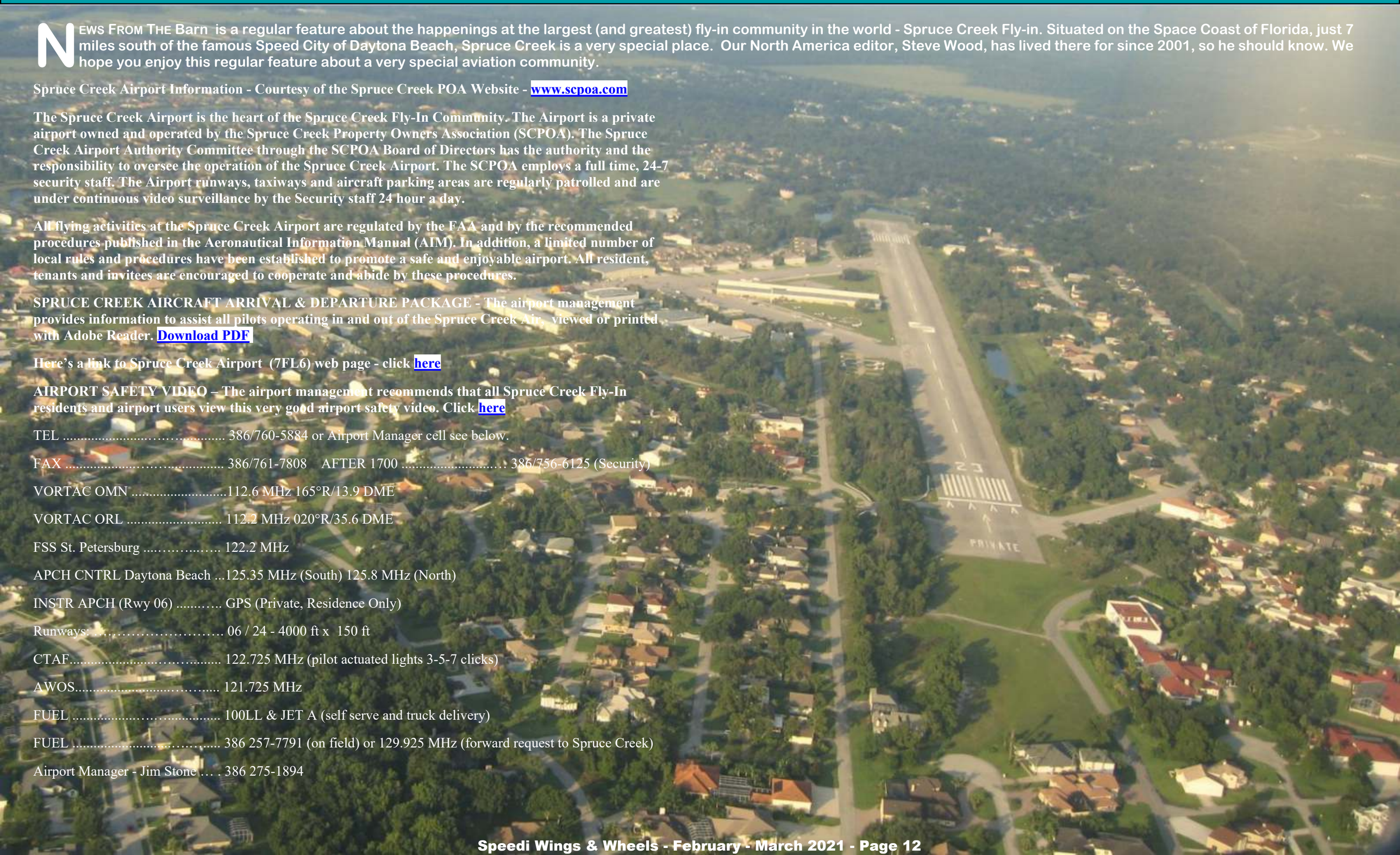

NEWS FROM THE Barn is a regular feature about the happenings at the largest (and greatest) fly-in community in the world - Spruce Creek Fly-in. Situated on the Space Coast of Florida, just 7 miles south of the famous Speed City of Daytona Beach, Spruce Creek is a very special place. Our North America editor, Steve Wood, has lived there for since 2001, so he should know. We hope you enjoy this regular feature about a very special aviation community.

Spruce Creek Airport Information - Courtesy of the Spruce Creek POA Website - www.scpoa.com

The Spruce Creek Airport is the heart of the Spruce Creek Fly-In Community. The Airport is a private airport owned and operated by the Spruce Creek Property Owners Association (SCPOA). The Spruce Creek Airport Authority Committee through the SCPOA Board of Directors has the authority and the responsibility to oversee the operation of the Spruce Creek Airport. The SCPOA employs a full time, 24-7 security staff. The Airport runways, taxiways and aircraft parking areas are regularly patrolled and are under continuous video surveillance by the Security staff 24 hour a day.

All flying activities at the Spruce Creek Airport are regulated by the FAA and by the recommended procedures published in the Aeronautical Information Manual (AIM). In addition, a limited number of local rules and procedures have been established to promote a safe and enjoyable airport. All resident, tenants and invitees are encouraged to cooperate and abide by these procedures.

SPRUCE CREEK AIRCRAFT ARRIVAL & DEPARTURE PACKAGE - The airport management provides information to assist all pilots operating in and out of the Spruce Creek Air, viewed or printed with Adobe Reader. Download PDF

Here's a link to Spruce Creek Airport (7FL6) web page - click here

AIRPORT SAFETY VIDEO – The airport management recommends that all Spruce Creek Fly-In residents and airport users view this very good airport safety video. Click here

TEL ..... 386/760-5884 or Airport Manager cell see below.

FAX ..... 386/761-7808 AFTER 1700 ..... 386/756-6125 (Security)

VORTAC OMN .....112.6 MHz 165°R/13.9 DME

VORTAC ORL ..... 112.2 MHz 020°R/35.6 DME

FSS St. Petersburg ..... 122.2 MHz

APCH CNTRL Daytona Beach ...125.35 MHz (South) 125.8 MHz (North)

INSTR APCH (Rwy 06) ..... GPS (Private, Residence Only)

Runways: ..... 06 / 24 - 4000 ft x 150 ft

CTAF..... 122.725 MHz (pilot actuated lights 3-5-7 clicks)

AWOS..... 121.725 MHz

FUEL ..... 100LL & JET A (self serve and truck delivery)

FUEL ..... 386 257-7791 (on field) or 129.925 MHz (forward request to Spruce Creek)

Airport Manager - Jim Stone … . 386 275-1894

In our '*News from the Barn*' section we will be featuring news and photos from Spruce Creek Fly-in, the world's greatest aviation community. With over 1600 homes, and not all of them are hangar homes, and home to over 3000 people, there are over 650 airplanes based at Spruce Creek. But it's not all about aviation at Spruce Creek - there's golf, tennis, motorcycling and much more, as well as a Country Club and the Downwind restaurant right alongside Beech Boulevard - a major taxiway in the center of the airport. EAA Chapter 288 (Daytona Beech) meets at Keith Phillip's hanger on the other major taxiway - Cessna Boulevard. Then there's the Gaggle Flight, which is quite something in its own right. Every Saturday morning (and sometimes on Wednesday too) members of the Gaggle Flight meet at The Big Tree which sits right in the middle of the airport. Upwards of 30 aircraft depart in flights of 3 or 4 (and sometimes more) flying out to breakfast. The arrivals back are usually spectacular, with overhead breaks the norm. Our North America editor, Steve Wood, is part of Goofy Flight - named after his GlaStar which has the special registration N-600FY. Steve even has 'goofy' smoke on his airplane which can 'puff' or be continuous at whim. Everyone has great fun at Spruce Creek Fly-in which perhaps explains why there's a sign inside the main entrance which reads *"Caut ion - Children And Adults At Play"*.

Remember Click 'a' Pic

Spruce Creek resident and retired United Capt. Richard (Dick) Russell celebrated his 91st birthday recently. Here's a tribute of videos, over the next 4 pages, to celebrate Dick's birthday.

Dick in his beloved T-34 RR

Remember
Click 'a' Pic

Dick & his wife, Wilma, wait to greet well wishers outside their hangar.

Remember
Click 'a' Pic

Line of golf carts waiting to greet Dick

Remember
Click 'a' Pic

Dick in his T-34 ready to fly formation at a Williston fly-in back in 2009

Remember
Click 'a' Pic

Dick flying right wing at Stuart Air Show in 2010

Moving mountains of snow for top-champion sports: Mercedes-Benz trucks in operation at the Biathlon World Cup in Oberhof

- *In January 2021, Oberhof in Thuringia was once again the location for the Biathlon World Cup and Mercedes-Benz trucks were in active service*
- *Approximately 30,000 cubic metres of snow were moved to create ideal conditions on the pistes and to ensure that the World Cup ran smoothly*
- *A total of eight Mercedes-Benz Arocs tipper trucks, provided by the Branch Information Centre (BIC) and Mercedes-Benz CharterWay, worked non-stop*

Stuttgart/Oberhof – It's essential, but too much is too much: not only COVID-19, but also unfavourable snow conditions created challenges for the Biathlon World Cup in Oberhof. Mercedes-Benz had sent a truck fleet of eight Mercedes-Benz Arocs into the front line to ensure that the world biathlon would find ideally prepared ski runs and to ensure the smooth running of the World Cup. The task was to shift about 30,000 cubic metres of snow.

Thousands of truckloads of snow

About 300 biathletes from 31 countries were to take part in the Biathlon World Cup. At the beginning of January, the required snow hadn't arrived. To be prepared for such situations, in 2013 a storage pond was created for making artificial snow. The snow is stored in the indoor ski run and in a depot which was built in 2015. With about 1500 truckloads from there, the team set about creating a ski run in accordance with the rules of the International Biathlon Union (IBU). At the end of 2020, work began on the ten-kilometre Nordic ski trail, which had to be six metres wide at the end and have a snow covering at least 60 centimetres thick. For ten days, the Mercedes-Benz Arocs tippers drove the white snow to the site. In the middle of January, the snow shortage was reversed: it snowed so much that the trucks had to take almost a hundred truckloads of fresh snow out of the arena, the TV area and also out of the areas for the athletes and their support staff. Sometimes the driving could only be done using snow chains.

"Amongst other things, we had to reverse up to two kilometres to get to the loading place – you can bet that MirrorCam was a true blessing! Besides the special manoeuvring vision when reversing, the system also gave us a better all-round view. In particular for the slanting view forwards – past the A-pillars – you have a much wider field of vision for the driver. That really helped us on narrow forest paths. With the difficult light and visibility, the displays always provided a noticeably brighter, high-contrast view of the surroundings. The cameras always stayed clean, even in the dirtiest of conditions, so with MirrorCam driving was that much safer," says Christian Schleicher from Daimler Truck Sales Management South (Bavaria and Württemberg). As a volunteer World Cup helper, he drove one of the eight Arocs tippers.

Four trucks of the latest generation came from the fleet of the Branch Information Centre (BIC) at the Wöth plant, equipped with MirrorCam and Multimedia Cockpit. The other four were from the hire fleet of Mercedes-Benz CharterWay. The vehicle configurations ranged from 6×4 three-axle trucks to 8×8 four-axle vehicles. The vehicles were ideally prepared for the cramped, slippery, steep terrain thanks to off-road equipment with high performance engine brake, differential locks and turbo retarder clutch.

"The 2021 biathlon in Oberhof was very special – and not just because of the pandemic. Anyway, our Arocs showed that they can cope with all difficulties even in those extreme situations, and they mastered all the tasks splendidly," said Schleicher after the event.

Warwickshire, UK, 10 February 2021 – Land Rover Classic is continuing the formidable expedition legacy of the original Defender with a limited production run of adventure-ready Defender Works V8 Trophy vehicles for an exclusive competition at Eastnor Castle in 2021.

Based on the re-engineered 2012-2016 Defender Works V8 specification developed by Land Rover Classic, including 405PS / 515Nm 5.0-litre V8 petrol powertrain, eight-speed ZF automatic transmission and comprehensive uprated suspension, steering and braking packages, the Trophy vehicles feature a wide range of additional upgrades specifically tailored for off-road use.

Twenty-five examples of the Defender Works V8 Trophy, in a mixture of 90 and 110 Station Wagon body designs, will be exclusively finished in a unique Eastnor Yellow paint colour with matching 16-inch steel wheels. Contrasting Narvik Black paintwork features on the wheel arches, bonnet and rear door. The purpose-built vehicles also receive LED headlamps, a Heritage front grille, unique Land Rover Trophy badging and event participation graphics personalised to each customer.

The Defender Works V8 Trophy is designed to tackle the most demanding endurance challenges. Additional all-terrain kit includes a front winch, multi-point expedition cage, roof rack, underbody protection, A-bar, raised air intake, LED spotlights and mud-terrain tyres.

Inside, the instantly recognisable 4x4 benefits from full black Windsor leather upholstery with Recaro sports seats, contrast yellow stitching and a bespoke Land Rover Trophy clock face by Elliot Brown. Land Rover Classic's own Classic Infotainment System with integrated navigation and mobile device connectivity is also fitted.

Later this year, Defender Works V8 Trophy customers will be invited to compete in an exclusive three-day adventure at Eastnor Castle in Herefordshire – the spiritual home of Land Rover all-terrain training, testing and development. This will be the first time customers drive their car.

On seeing their Defender Works V8 Trophy for the first time, customers and their co-drivers will make their first marks by adding their names and country flags to the vehicle. They will then embark on a range of challenges inspired by famous global adventures and competitions spanning more than seven decades of Land Rover production.

Expert one-to-one tuition will be provided as part of the adventure, giving customers a unique opportunity to develop extreme driving techniques and skills in their own vehicle, before putting their training to the test. Everyone will compete for a range of prizes, including a grand prize for the overall winner – to be announced later in 2021.

Familiar faces from Land Rover's adventure heritage feature in the Defender Works V8 Trophy launch film, including racing driver, stunt driver and Land Rover ambassador Jessica Hawkins, alongside Camel Trophy participants such as 1989 event winner Bob Ives. A number of these experts will also be on-hand at the Land Rover Trophy to share their knowledge and experiences.

The Land Rover Trophy event will be supported by the New Defender and carefully selected brand partners Elliot Brown, Fat Face and Musto, who have created complementary products specifically for Defender Works V8 Trophy customers.

Both 90 and 110 wheelbase Defender Works V8 Trophy derivatives are now available to order direct from Land Rover Classic, with prices starting from £195,000 for a 90 in the UK.

HRH THE PRINCE OF WALES OFFICIALLY OPENS THE NATIONAL AUTOMOTIVE INNOVATION CENTRE

Coventry, UK – 18 February 2020: HRH The Prince of Wales today officially opened one of Europe's largest automotive research and development facilities, the National Automotive Innovation Centre (NAIC), at the University of Warwick, in Coventry. Advanced researchers, engineers and designers based at the Centre are tackling society's largest mobility challenges and collectively shaping the future of the global automotive industry from the heart of the United Kingdom.

Bringing together the brightest minds from industry and academia, the NAIC is a beacon for future mobility and sustainability research and development. It will create future vehicles and personal mobility solutions as well as deliver the skills required to keep the UK globally competitive. The NAIC is at the centre of the Midlands ecosystem, which is a magnet for economic growth and delivering a Destination Zero future.

During today's visit, Jaguar Land Rover, Tata Motors and WMG showcased sustainable future mobility projects, including their most recent electrified and autonomous vehicles. Jaguar Land Rover demonstrated its latest advanced autonomous research concept vehicle as the next stage of its Destination Zero mission: an ambition to make societies safer and healthier, and the environment cleaner. Delivered through relentless innovation, the company's focus is on achieving a future of zero emissions, zero accidents and zero congestion – across its facilities, and through its products and services.

A collaborative hub

The 33,000m² centre is designed as an innovative, collaborative workspace for hundreds of academics, designers, researchers and engineers. It includes cutting-edge workshops, laboratories, virtual engineering suites and advanced powertrain facilities. The concept for the NAIC was brought to life by the late Professor Lord Bhattacharyya, founder of WMG, and the building it is located in is named in his honour.

The partners working together in NAIC are engineering the future and helping supply the next generation of engineers, designers and researchers. At NAIC, students and apprentices work alongside experts and leaders in their fields. Through a range of education programmes, apprenticeships and lifelong learning, all three partners are developing curricula which support the emerging technologies and mobility solutions.

Sustainable future mobility

Jaguar Land Rover, Tata Motors and WMG are developing next generation future electrified and autonomous vehicles at the NAIC. Today, they exhibited some of their latest projects including: Warwick's Formula Student entry and the Warwick Moto concept which is led by WMG; Tata Motor's latest affordable Nexon EV and autonomous Tata Hexa alongside Jaguar Land Rover's latest prototype self-driving Jaguar I-PACE and ADAS Land Rover Discovery.

The National Automotive Innovation Centre brings together UK-based engineering and design experts to one setting, providing greater synergy on ground-breaking design and technologies with a focus in Connected, Electric, Shared and Safe, that will help shape future mobility solutions in India.
The Centre has been carefully designed to support the future of automotive advancements. Its virtual engineering suite, powertrain facilities, laboratories and cutting-edge design workshop provide an inspiring, productive and collaborative environment for the future.

FIRST CUSTOMER BACALAR W12 ENGINE COMPLETES TESTING

(Crewe, 17 February 2021) Producing 659 PS (650 bhp) and 900 Nm (667 lb.ft) of torque, the engine for the first customer Bentley Mulliner Bacalar has now completed assembly and production testing at Bentley's centre of excellence for W12 engines.

The Bacalar spearheads a return to coachbuilding by Bentley Mulliner and features an enhanced version of Bentley's peerless 6.0-litre, W12 TSI engine, the most advanced 12-cylinder engine in the world.

Since the first introduction of the twin-turbocharger W12 in 2003, the refinement of the engine has seen an increase of up to 27 per cent in power, 38 per cent in torque and a reduction of 28 per cent in emissions.

This has been realised through evolution and optimisation of the crankcase, improvements in the oil and cooling systems, twin-scroll turbocharging technology and more effective injection and combustion processes.

Each W12 engine is hand-built over 6.5 hours by a team of 45 craftspeople before undertaking a highly sophisticated test regime of over an hour via three specialist diagnostic machines during the engines assemble.

Each W12 is then tested for a minimum of 21.5 minutes and runs up to 3,800 rpm with a maximum load of 300 Nm. One in every one hundred engines receives a full eight-hour power test, achieving 6,000 RPM, and must achieve 900Nm.

Since the installation of the three testbeds in 2002, over 100,000 W12 engines have been handcrafted in Crewe and passed through the test facility.

Engine Technology Advancements

Bentley's legendary 6.0-litre twin-turbocharged W12, created in 2002, has evolved into the latest iteration of W12 engine used across today's current model range. The unique W-configuration means that the engine is 24 per cent shorter than an equivalent V12, benefitting packaging and maximising usable cabin space.

The latest generation of W12 was launched in the Bentayga in 2016. A thoroughly reworked engine included a crankcase 30 per cent stronger than its predecessor, while the cylinder surfaces were coated to reduce friction and improve corrosion resistance. A low-alloy steel coating is applied to the bores using an Atmospheric Plasma Spray (APS) process.

Improvements were also made to the cooling system, with the engine featuring three separate coolant circuits. The first is designed to bring the cylinder heads up to optimum operating temperature as quickly as possible for best engine performance and low emissions. The second cools the engine block and oil system, while the third handles the thermal load of the turbochargers. Each system has a dedicated water pump, allowing optimised individual control.

The W12 combines high-pressure direct fuel injection (200 bar injection pressure) with low-pressure port injection (six bar). The combination of these two systems maximises refinement, lowers particulate emissions and optimises power and torque delivery.

Twin-scroll turbochargers minimise turbo response time and provide a more efficient exhaust package. The exhaust assemblies for the three front and three rear cylinders are separate from one another which then feed the twin-scroll impellers. The turbocharger housing is welded directly to the exhaust manifolds and feature integrated speed sensors, allowing the engine to monitor turbo performance for maximum efficiency.

Bentley's Variable Displacement system shuts down half of the engine under defined conditions. Intake and exhaust valves, fuel injection and ignition are all shut down on defined cylinders, with the engine running as a six-cylinder for improved efficiency. The system will run in this mode in gears three to eight, below 3,000 rpm and up to

GONE CRUISIN'

Gary's Hot Rods & Cruisers





Welcome to Gone Cruisin', our regular feature on the cruisin' scene brought to you by Gary Rosier. Primarily from in and around Central Florida, but we'll be including interesting events around the USA. More pics from Gary at http://www.carsplaneslandscapes.com/

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USAF Thunderbirds at Daytona Beach for the Daytona 500 race

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