The official magazine of the Aircraft Owner and Pilots Association

www.aopa.co.uk

April/May 2023

Every issue we now have an **NTERVIEW** Andrew Panton talks on p22

Crossing Atlantic

STOL ON A HELIPAD

Polish Pilot Luke Czepiela lands his CubCrafter on the helipad of the Burj Al Arab hotel, 212m above sea level

NEW DAMBUSTERS FILM *Attack On Sorpe Dam* is narrated by

Attack On Sorpe Dam is narrated by the last member of the Dambusters, George "Johnny" Johnson

AIRCRAFT MAINTENANCE

Michael Powell's series on what work you can do to your aircraft returns. This issue: batteries and seatbelts Ferrying a Cirrus from the US to the UK, sounds like fun doesn't it? Well, maybe not in winter. **Richard Berliand** takes on the challenge



AVIATION

BOSE A20 AVIATION HEADSET

We put in decades of research to deliver a headset that stands the test of time.

BOSE

A20 Aviation

50

For over 10 years, the A20 has been synonymous with the technologies that define the aviation headset category. With its comfortable design and 30% greater noise reduction than conventional aviation headsets, the A20 is the headset of choice for pilots around the world.

Enhance your flying experience. Get yours via our official Authorised Dealers at www.boseaviation-EMEA.aero/shops.

Z

PUBLIC PERCEPTIONS OF GENERAL AVIATION

ANY OF you will have picked up on the paragraph by Martin Robinson in the last issue's AOPA Affairs regarding unleaded fuel. It demonstrated how the UK and Europe are not as far forward with providing a lead-free fuel alternative as the US is. AOPA US recognised the collaborative approach in this area between industry and government enabling this.

When an article appeared in the in the Daily Telegraph at the beginning of the year claiming 'Aeroplane hobbyists putting thousands at risk of cancer thanks to lead based fuel' AOPA sprang into action. The AOPA Maintenance Working Group held its first meeting in 2009. It comprises a wide range of industry expertise including aircraft owners, maintainers, engineers, builders and a significant CAA representation, all people highly respected in their fields of expertise. In addition to providing a resource for the AOPA membership they aim to tackle the issues of the day and provide support from a GA perspective to the CAA.

As if GA needed the Daily Telegraph to point it out, the Maintenance WG has been addressing the issue of lead-free aviation fuel for a few years now. Following the article, AOPA Maintenance WG took the initiative to 'put the record straight'. They drafted a statement and asked both the LAA and BMAA to participate, which they willingly did. This has resulted in the GA associations joint statement on leaded Avgas. It laid out clearly progress-to-date and the existing barriers to full uptake of unleaded Avgas. It also refutes the shoddy journalism of the Daily Telegraph whose fact checking was non-existent, with no aviation association consulted for a balanced view. The Government does not get off either, they are called upon to raise the priority of uptake of unleaded fuel and suggestions such as lower duty are given. Overall we are looking to the Government to help the drive to unleaded fuels with investment in UK research and development, testing and production so that we regain a home-based industry while we wait for the next generation of sustainable aviation fuels for General Aviation use. The full statement can be read on AOPA's website.

The irony of the Daily Telegraph report was that the accompanying picture to the article showed a CFM Shadow microlight which runs on a Rotax engine and when operated in the UK most likely be using MOGAS, i.e. unleaded petrol.

To my mind this demonstrates clearly the need for organisations such as AOPA, the LAA and BMAA to continue to lobby on behalf of GA and to change public perception of GA. We need your help, so please continue with your membership and consider getting involved.



Pauline Vahey Chairman, AOPA UK pauline@aopa.co.uk



EDITOR David Rawlings editor@aopa.co.uk

ART EDITOR

Dan Payne dan.payne@aopa.co.uk

CONTRIBUTORS

Mike Powell, Andrew Panton, Martin Leusby, Richard Berliand

PUBLISHED BY

AOPA UK c/o 1 Jason Close, Orsett, Grays, Essex, RM16 3DY +44 (0)20 7834 5631

ADVERTISING & SUBSCRIPTIONS

AOPA UK c/o 1 Jason Close, Orsett, Grays, Essex, RM16 3DY

HEAD OF ADVERTISING

David Impey +44 (0)7742 605338

PRINTING

Ruddocks 56 Great Northern Terrace, Lincoln LN5 8HL +44 (0)1522 529591 www.ruddocks.co.uk

© British Light Aviation Centre Ltd AOPA is a member of the International Council of Aircraft Owners and Pilots Association. IAOPA



Articles, photographs and news items from AOPA members and other readers are welcome. Please send to the Editor. Inclusion of material in AOPA Magazine cannot be guaranteed, however, and remains at the discretion of the Editor. Material for consideration for the June issue should be received no later than 1st May 2023.

INSIDE THIS MONTH

CONTENTS APRIL 2023

03

CHAIRMAN'S CHAT Pauline Vahey explains how AOPA is protecting General Aviation from rogue journalisim and improving the public's perception of pilots

AOPA AFFAIRS Martin Robinson ponders how the future will look in terms of airspace privileges and what it means for General Aviation pilots

09

UP FRONT Jon Hunt, former BBC reporter now known as The Flying Reporter is looking for airfields to visit and review on his fantastic YouTube channel

UP FRONT Micheal Powell's series on what you can and can't do to your aircraft is already at part six and focuses on batteries and seatbelts

UP FRONT Your Hero. Martin Leusby offers up his Air Planes 172XP, expaining why after owning it for more that 35 years, it's still his hero he loves to fly

UP FRONT Martin Robinson attended the British Business and General Aviation conference in March and his report delves into what was discussed at the event



16

NEWS The latest news from around the globe that relates to you, the pilot, including airfield updates, alternative fuels and an airworthy Mosquito heading for the UK

22

THE INTERVIEW We speak to Andrew Panton, the director of the new 'Dambusters' film *Attack On Sopre Dam* and how he created this unique film

24

FEATURE Polish pilot Luke Czepiela amazed the world when he landed his CubCrafter on the helipad of a hotel in Dubai. This is his story

30

COVER STORY Richard Berliand had the trip of a lifetime when he ferried a Cirrus SR22T aircraft from America all the way to Biggin Hill - in the winter!

300 FEATURE The film *Attack On Sopre Dam* will be released in May 2023. Here we look at the way this unique film uses special effects and first hand narrative to bring the story to life

48

CLASSIFIEDS Your one-stop shop if you're looking for a Licensed Engineer, parts for your aircraft, or even a new aircraft. AOPA's classifieds section is for you





EDITOR'S COMMENT

SPRING HAS SPRUNG

It feels like this winter has been a long one, but as I write this the sun is shining and it really feels like the flying season can begin. Although, saying that, if you turn to page 30, you'll see that pilots like Richard Berliand don't need to wait for the better weather. He ferried a Cirrus SR22T from the US to Biggin Hill in the middle of winter.

In the rest of the issue, we cover all aspects of flying. A film being released next month covers the lesser-known story of the third dam in the Dambusters raid. We speak to the director of the film Andrew Panton.

We also explore what it took for Polish pilot Luke Czepiela to land on a hotel helipad in Dubai, something that will probably never be repeated.

There's also Michael Powell's series on what you can do to your aircraft, so your pride and joy can be in top condition before you fly!

David Rawlings Editor, AOPA Magazine UK editor@aopa.co.uk



AOPA AFFAIRS

With so many technological changes and advancements happening

With so many technological changes and advancements happening in the world of aviation we need to ensure that our airspace remains flyable, usable and most of all, safe. **Martin Robinson** explains

HERE ARE many different areas of work, all of which have the possibility to negatively impact General Aviation. Trying to influence power when power has its own agenda is at times difficult and often impossible. Government (DfT /CAA) seem to consult more now than it has done at any other time in their history, but what does consultation really mean? It might be suggested that it is good for democracy but when so many people respond, how does the regulator decide which responses to take account of, or do they just select the ones that supports their own aims? Or, do they simply produce bar charts that show the number of responses to each question? Some recent consultations have been criticised for their lack of clarity and for their complex technical make up, leaving them too difficult to understand and respond.

When developing or amending rules/ regulations AOPA seeks proportionality and consistency, which means we expect a risk-based approach that should be built on good quality data relating to the activity. The problem is the CAA doesn't collect much in the way of GA data. For example, the CAA cannot tell us how many GA hours are flown annually and whether those hours are increasing or not. This has been highlighted recently by the CAA in its approach to cost sharing flights, where the proposals being suggested are not evidence-based but seem more like a tidying up exercise that could enable the CAA to prosecute pilots more easily. The CAA has said it does not want to stop cost sharing but it clearly wants to change the way flights can be promoted.

It is already clear that if you break the rules on cost sharing then you run the risk of being prosecuted for operating an illegal public transport flight, which could mean a custodial sentence and/ or fines. I wish to make it clear that AOPA does not support illegal public transport flights and believes that if the CAA has genuine concerns, it should apply additional resources to deal with the problem, issuing clear guidance material in relation to cost sharing flights and by highlighting flights that could be considered as illegal public transport flights. Enforcing the penalties that exist, then AOPA would support and promote.

There is a meeting coming up with the CAA to discuss how far the regulator wants to amend the existing rules. AOPA and Wingly will participate in the discussion. In a separate discussion Rob Bishton (acting CAA CEO) said that the authority does not want to stop cost sharing but has concerns. He was edging towards illegal public transport operations but by his own admission the CAA has no data to support their case. AOPA wants to see better guidance from the CAA on how to cost-share private flights including how platforms such as Wingly may operate. We certainly don't want to drive the practise underground where we will see people advertising on platforms such as Tik Tok and taking payment via crypto currency.

Ryanair has been criticised over the years for selling seats for $\pounds 1 -$ "they must be cutting corners, safety will be affected!." Yet that's not the case, and Ryanair is by far Europe's biggest airline and has a good safety record. Cost sharing allows more people to benefit from flying in GA aircraft and that has to be a positive for private flying. There will be the nay-sayers out there but when we look to safety data that would drive a change in the current system there is none. At the same time the CAA is developing rules that will eventually allow fare paying passengers to fly in pilotless aircraft.

HEADING FOR ZERO

High on the Government's agenda is carbon net zero which will apply, by 2040, to all domestic flights and by 2050 for all other flights. There will be a requirement for airspace design to be more efficient, including how it is used. However, ICAO suggests that controlled airspace needs to be the minimum required for the safety of commercial air operations. It is expected through the airspace modernisation process to deliver around 20% of the total carbon reduction. Add to this Sustainable Aviation Fuels (SAF) and the goal of carbon reduction becomes a reality. The views on hydrogen and electric flight are varied as the technology to deliver these innovations are still being developed and unlikely be available in the near future.

The integration of cargo drones and advanced aerial mobility flights (AAM) is on the Government's agenda and it is also influencing the airspace strategy for the years ahead. We will see more use of temporary restricted airspace to support the development of Beyond Visual Line of Sight (BVLOS) operations, and where these trials are successful it is foreseen that the CAA will change the airspace so that they become mandatory transponder (TMZ) or electronic conspicuity (EC) zones. The requirement to be electronically conspicuous is also a requirement of the Uspace proposals in Europe. There are a number of questions which remain unanswered as EC is not a collision avoidance system, it is a traffic alerting technology, whereas collision avoidance relies on a pilot taking corrective action. But to do that the pilot has to be able to see the other aircraft (manned or unmanned) in order to determine if collision avoidance action needs to happen. There has been some discussion in the USA about requiring the Drone to take all avoiding action. At the same time Europe is yet to discuss how Uspace should be depicted on aeronautical charts. GA pilots flying either VFR or IFR need to plan their flights accordingly, including interaction with other airspace users.

Management of all traffic in the lower airspace needs to be addressed



"The integration of cargo drones and advanced aerial mobility flights (AAM) is on the Government's agenda" stipulating what kind of services will be available in which volumes of airspace.

A new group has been established by the Civil Aviation Authority known as the Electronic Conspicuity Technical Cooperation Group (ECTCG) and AOPA will be represented by Bob Darby. The aim of the group is to try to resolve the issues associated with the different competing systems, as the CAA and DfT have agreed the Standard for Electronic Conspicuity is to be based on 1090/978.

The AOPA position is that we support a cooperative interoperable (two-way) surveillance environment. We also believe that the CAA must take into account our international obligations, given the number of foreign-registered aircraft that fly into the UK. AOPA wants to see GA having better access to airspace and where we invest in technology then this must be part of the trade-offs.

There is a group (including AOPA) of interested parties that has been raising the issue in relation to the UK no longer having access to SBAS (Space Based Augmentation System). The Government removed the UK from EGNOS (European Geostationary Navigation Overlay System) saying that it did not represent value for money to the British taxpayer. According to Sir Stephen Hillier, who I met during the BBGA conference in London (more on page 14), it is unlikely that the Government will re-join the European system. The DfT has engaged a company called PA Consulting to review the requirements on Position Navigation Timing (PNT)/GNSS across transport networks.

Inmarsat has run a trial with a test signal, because the Government has indicated it wants to develop its own sovereign system, however a national solution is unlikely to materialise before 2030 even if funding gets approval. In the meantime the group has been suggesting to Government that there needs to be a transition plan.

In a recent communication from Baroness Vere the Aviation Minister, it was stated that the DfT's promise of up to 75% funding for GNSS approaches has been put on hold whilst the department conducts a funding review. CAP1616 is the process for dealing with changes to notified airspace and sets out the Government's legal framework for airspace changes. It's up to the CAA to have a process which is proportionate, consistent and fair. There was a requirement to conduct a review of CAP1616 three years post its original implementation date. The CAA has been consulting on this document and about the processes involved. The overall ambition of the CAA is to improve the process-making it more streamlined and reduce some of the costs to the sponsors. AOPA is saying that in its current form it is not fit for purpose as it is very bureaucratic, which means it takes a long time to reach maturity and it is extremely costly for the applicant. AOPA has some concerns about proposals in the review that could change how the CAP1616 process may be used to support applications for temporary/ trial airspace (usually to support BVLOS operations for drones) without the need to comply with the full requirements of the airspace change rules. AOPA also thinks that the CAA could establish checklists and flow charts as part of the process to enable the sponsor to clearly see what is required at each stage of the application. But before that, there needs to be a discussion between the sponsor and the CAA to determine whether the proposal is possible — A Go/No Go decision before sizeable funds are invested in a process.

CHANGES AHEAD

Sophie O'Sullivan is returning to the CAA after finishing her maternity leave but will be taking up a new position in relation to future space. The current acting head of the GAU, Michael MacDonald, will remain as the acting head for the time being. At the last GA partnership meeting, it was announced that they will be conducting a review of the GA partnership and its value to both industry and the CAA.

Other personnel changes include the retirement of the current CEO Richard Moriarty at the end of April this year. His position will be filled on a temporary basis by Rob Bishton, who is the current head of the Safety Regulation Group. The Chief Operating Officer, Chris Tingle, left the authority at the end of February. The CAA are planning to fill these positions over the next six to nine months but they don't appear to be in any hurry.



MRollinson

Martin Robinson CEO, AOPA UK martin@aopa.co.uk



GIVE YOUR LEGACY PANEL NEW LIFE

Avidyne's FMS/LPV with ADS-B upgrade solution provides more features, increased capabilities, and a reliable performance proven by even the most experienced pilots. Upgrade your legacy flight deck in days not weeks saving you on downtime and installation costs.

Compatible with most legacy EFIS systems including Primus 1000 and Pro Line 21™.

CERTIFED, IN STOCK & READY TO SHIP!*

Visit http://avidyne.com/business-aviation-europe for a list of Authorized Certified Dealers.

See Avidyne's FMS/LPV upgrade solution in action Avidyne.com/videos.

* CITATION 500 SERIES, KING AIR AIRCRAFT



 \bigcirc

AOPA UP FRONT

Welcome to the UP FRONT section of the magazine. Bringing you help, advice, and other insights from the world of AOPA, in an honest and 'up front' way to help you stay flying. Something to say? Please contact us at *editor@aopa.co.uk*

WORDS Nick Wilcock IMAGES Adobe Stock

QUICK WINS PLEASE!

Nick Wilcock believes we could be heading for a few problems when it comes to the CAA's Licensing and Training Simplification project, what's needed are some quick wins!

Readers will doubtless recall that AOPA responded to the CAA's CAP 2335 'Licensing and Training Simplification' consultation by concluding that evolution of some of the current licensing problems faced by many, rather than a wholescale shake up of the entire GA licensing regime, would be preferable.

At the most recent CAA L&TS meeting, it became clear that the timescale for the Authority's intended programme is not insignificant! No indication of this timescale was provided in CAP 2335; perhaps if it had been, then comment responses might have been rather different. Although the Comment Response Document is due to be released 'in March/ April' and the L&TS Working Group sub groups were supposed to receive Terms of Reference before starting further work 'in March/April', at the time of writing none of this has actually happened. Furthermore, industry consultation regarding Phase 2 won't even start until 'early 2024'.

I regard that as somewhat optimistic. With a General Election required to be held before January 2025 plus all the associated pressures on parliamentary time, realistically I cannot see that the L&TS project will come into law during the lifespan of the current government or perhaps even in 2025.

It would be totally unreasonable to expect our industry to wait that long for improvements in UK flight crew licensing policy. At the most recent AOPA Training and Education Working Group meeting of a dozen very experienced FI, CRI and FE, this situation was discussed at length, but within the constraints of confidentiality required by the CAA L&TS chairman. We concluded that our industry would be better served in the short term by a number of 'quick wins' which would be warmly welcomed by the industry and would also put the CAA in a good light.

We have therefore written to the CAA, considering that it is in the Authority's gift to propose the following 'quick wins' to the DfT:

 Credit towards the UK LAPL(A) shall be fully in accordance with Regulation 1178_2011 Annex 1 [Part-FCL] Sub part B FCL.110: • FCL.110 LAPL – Crediting for the same aircraft category (a) Applicants for an LAPL who have held another licence in the same category of aircraft shall be fully credited towards the requirements of the LAPL in that category of aircraft. (b) Without prejudice to the paragraph above, if the licence has lapsed, the applicant shall have to pass a skill test in accordance with FCL.125 for the issue of an LAPL in the appropriate aircraft category. This is already in UK Law and



With the quick wins listed here it could benefit UK General Aviation in a shorter timescale

would facilitate credit for all NPPL(A) holders towards the UK LAPL(A), including those who have converted from the NPPL (Microlight); currently such an option is only available for NPPLs issued prior to 8th April 2018. Although Article 4 of the EU Aircrew Regulation concerning conversion of national licences wasn't brought into UK Law, FCL.110 concerns credit towards a LAPL(A), which is an important distinction. • Inclusion of the IR(R) in the UK LAPL(A) for pilots who meet current IR(R) experience and training prerequisites. This would extend the wellregarded safety levels of IMC training and testing to more UK pilots and could induce more pilots to convert to UK Part-FCL; as both the IR(R)and LAPL(A) are generally valid only in UK airspace, there is no logical reason why

this proposal could not be rapidly adopted.

• Acceptance of '<2000 kg' Pilot Medical Declarations for all UK sub-ICAO student pilots. We proposed this in our formal CAP 2408 response and are pleased to note from SkyWise Alert SW2023/053, concerning the PMD Review Feedback Update of 16th Mar 2023, that 'The overwhelming theme, equating to over a third of the individual comments, was regarding the use of a PMD for students to fly solo[...]'

In conclusion, our proposals do not conflict with the L&TS project but would be of significant benefit to the sub-ICAO segment of UK GA and would be achievable in a much shorter timescale than that of the L&TS project. However, at the time of writing we have yet to receive a response from the CAA. WORDS AND IMAGES Mike Powell

WHAT THE PILOT MAY AND MAY NOT DO

Part six of **Michael Powell's** series on which tasks you can undertake on your aircraft, focuses on electrical wiring and seat belts

THIS TIME we will look at electrical wiring and safetybelts. Not immediately related subjects but adjacent items in the Part M (L) list of tasks the Pilot/Owner may undertake.

Batteries are included under the list of tasks listed under the heading Electrical Power in the AMC to Appendix viii.

Batteries should be in good condition and fully charged, if frustrating early morning starting problems and flat batteries are to be avoided especially during the cold winter months when battery performance is low and engine oil sluggish. The move to sealed batteries reduces the amount of attention required but if the battery is still filled with an electrolyte and has removable caps to each cell, then the electrolyte level must be monitored and

topped up with distilled water when necessary so that the electrolyte just covers the tops of the cells (visible when the caps are removed). DO NOT USE TAP WATER.

The battery terminals (Fig 1) should be inspected for signs of corrosion and security. If there are signs of corrosion then the terminal connection should be disconnected and the parts thoroughly cleaned to remove any corrosion re-fitted, and the connection tightened. Ensure that the terminal connections are dry before fitting. After fitting, the terminal should be protected by a coating of Vaseline and may be further protected by fitting a flexible boot over the terminal (available from LAS).

Ensure that the +ve and -ve connections at the battery are well clear of the battery case and any other metal surface.

"After fitting the terminal should be protected by a coating of Vaseline and may be further protected by fitting a flexible boot over the terminal" Sealed batteries do not require any regular servicing with the exception of the cable and terminal connections where corrosion and security measures apply as before.

The battery box of lead/ acid batteries should be regularly inspected for signs of corrosion as the battery electrolyte contains an acid.

Consider buying a battery maintenance charger. The new versions of these are electronic chargers that can slowly charge and then maintain a lead-acid battery in good condition. They may be left connected temporarily with croc-clips while the aircraft is on the ground leaving you confident that you will

Visit

.co.uk for even

have a fully charged battery, even on cold mornings. Aircraft fitted with engines that have magneto ignition systems (usually Lycoming, Continental and

pre-1970 engines) include a means of preventing the magneto from 'firing' generally know as the 'p-lead'. This prevents serious injury occurring to anyone turning the propellor when the magnetos are 'live' and the magneto 'fires' and causes the propellor to 'kick-back'. The p-leads are connected to the aircraft ignition switch and are marked 'L' and 'R' The ignition timing on most aircraft engines is around 25 degrees before top-dead centre so any unintended ignition will cause the propellor to rotate backwards with considerable



Figure 2: An issue with safety belt locking pins nearly saw Cessna go bankrupt some years ago



Figure 1: Inspect the battery terminals for signs of corrosion and security

force. A recent example of this unwelcome behaviour resulted in a broken arm and this involving a relatively small engine and propellor.

It is interesting to note that the p-lead works by grounding the magneto to prevent it working and this has the unfortunate side effect that a broken p-lead can no longer achieve its purpose and the magnetos are permanently live.

It is adviseable to check that the p-lead wiring is sound and firmly connected to each of the two magnetos. The p-lead is a relatively small screened cable coming from the ignition switch on the instrument panel and terminating at a terminal on the body of the magneto. The screening is to reduce interference on the radio and should be connected to a good earth point.

More recent ignition systems, as fitted to Rotax and Jabiru engines, are electronic and when the ignition swich is in the OFF position then no ignition may occur.

Some years ago the Cessna Aircraft Corporation was almost bankrupted when the pilot of a Cessna aircraft was nearly killed before the aircraft had even become airborne.

The pilot had taxied to the runway threshold and, having received clearance to depart, applied full power and commenced the takeoff run. To his alarm his seat moved rapidly rearwards causing him to grab hold of the control column in an instinctive effort to pull himself forward. The inevitable result was that the aircraft assumed an almost vertical attitude and then nosed over and hit the ground causing substantial damage to the aircraft and severely injuring the pilot.

The cause of this near fatal event was that the pilot's seat locking pins (which engage in holes in the seat rails (Fig 2)) had been forced out by forces caused by the aircaft's acceleration. Subsequent examination found that the seat-rail holes had become elongated by regular operation over a considerable time and no longer provided reliable engagement for the locking pins.

See AD2011-10-09. The AD gives dimensional information which enables the aircraft owner/engineer to determine the continuing acceptability of the seat rails.

Seat belts are also subject to regular wear and the stitching near the buckles and connections to the airframe should be inspected on a regular basis.

Bear in mind that in the event of a forced landing involving a rapid deceleration the effective weight of average pilot and passenger could exceed 1,000 lbs (455 kg) each. Signs of wear may be seen around the stitching in the form of 'fluffy' threads.



















 Tost GmbH Flugzeuggerätebau München

 Thalkirchner Straße 62
 D-80337 München

 Tel. +49-(0) 89-544 599-0
 info@tost.de

 Fax +49-(0) 89-544 599-70
 www.tost.de



Flugzeuggerätebau

increased safety in flying

Flugzeugräder Aircraft Wheels

Flugzeugreifen Aircraft Tires

Hydraulische Bremssysteme Hydraulic Brake Systems

Schleppseileinziehwinden Tow Cable Retractor Winches

Sicherheitskupplungen Safety Tow Releases

Seile Cables / Ropes

Start- / Schleppausrüstung Towing / Launching Equipment WORDS: Martin Leusby IMAGES: Martin Leusby



Martin Leusby's Air Plains 172XP G-AXDI

I bought her 37 years ago as a Cessna F172H and in 2007 upgraded her with the Air **Plains engine** installation, taking her from 145HP to 180HP. This has allowed me to land at just about anywhere (444 airfields so far and counting) and is the hero of both my books "The Airborne Ghost" and "Pilots Progress" (on Amazon). She is simply a constant delight to own and fly.

Send Your Hero to editor@aopa.co.uk. It doesn't have to be your own aircraft... own it or admire a certain type from afar, either way we want to know what's Your Hero and why. Just send us around 60 main words, and your top 7 'fast facts' and we'll do the rest.



ENGINE

Lycoming O-360A4M with Sensenich propellor, both 2000 TBO. Allows 130m take-off roll (2 up and full fuel).



FLAPS

Full 40 degrees available allows a full stop landing in just 80m.



WINGTIPS

Madras Air Service Supertips mean lots of social interaction with other pilots who come and ask about them!





PAINT

Scheme Design stolen from a Cessna 182 (which she thinks she is) and belies her 1969 origin.



ENDURANCE

Up to four hours economy cruise at 110kts – longer than my endurance. Ceiling is 17,000 feet – and a height I've never been.



HIGH WING

Gives the best view for my role in Air Search and most suitable for photography.



SAFETY

A forgiving nature and great instrument platform which is why 45,000 172s have been built. WORDS Martin Robinson IMAGES Various

MARTIN ROBINSON REPORTS ON THE BRITISH BUSINESS & GENERAL AVIATION

The annual conference discusses all things related to the business-side of GA. Here **Martin Robinson** picks put the points of interest for AOPA members

THIS EVENT was well attended by the business end of General Aviation, and during the conference one issue that was raised related to the shortage of aircraft engineers. This was also raised during the last AOPA Maintenance Working Group meeting. This is a concern because maintenance costs are increasing, and if individuals look to cut corners, safety could be impacted.

Other presentations covered a range of issues but it was interesting to hear about the impact of social media and how businesses have been using it to market their products and services. It seems that if you are an individual who can garner a million followers, or more, then you can monetise this if you are seen as an "influencer".

However, it is also easy to spread fake news (a former US president springs to mind), which was referenced during the presentation and how politicians have and do use social media.

Harold Wilson once said: "A lie is halfway around the world before the truth has got its boots on!". The point behind the presentation was about the need to be careful about how we use social media. Also, it has been reported that the algorithms have been manipulated by interested powers on platforms like TikTok! The Government has just announced that it has banned the TikTok app from Government phones, as cyber security concerns seem to grow on a daily basis.

The BBGA event suffered a minor interruption from a couple of climate protestors who interjected with their concerns regarding global warming, however the BBGA managed the situation well and the individuals were peacefully escorted from the venue and did not return.

The closing speech was delivered by Sir Stephen Hillier, the chair of the board of CAA. He stated, "The Civil Aviation Authority is an enabler for industry." I would like to believe that, but I'm not sure how many people in the room did? I think he has a tough role particularly as he tries to navigate the CAA through the changes brought about by the UK's relationship with Europe.

I think it is important that we tread carefully when it comes to investing in new technology given what happened recently with the Silicon Valley Bank, even though HSBC has moved in to rescue the UK arm. The number of UK tech firms that may have gone bust appear to have been saved. This should be a warning to the Government, DfT/CAA when engaging with the unmanned aircraft community as their business plans must stand up to financial scrutiny before regulators make huge system



A lack of aircraft engineers was a concern at the BBGA conference, an issue AOPA has also flagged

"The presentation was about the need to be careful about how we use soical media" changes.

Millions of pounds of taxpayers money is being invested in UAS/AAM but without clear business plans in my view.

The UAS community and developers seem to focus on the fully autonomous end game without a published road map on how to get there. I see many of these new technologies developing in niche markets and the early AAM will be flown by a pilot which effectively means the aircraft is a new type of rotorcraft.

Cargo drones will need to prove that they can integrate into airspace alongside manned aviation and do so safely but from what I have seen thus far this new aviation sector is only focussed on the end game – fully autonomous operations. Aviation has always been an evolutionary process.

Are you due for an Instructor Refresher Seminar?

DON'T LOSE YOUR INSTRUCTOR CERTIFICATE

You may attend a refresher seminar at any time during the validity of your FI or CRI certificate. The AOPA Instructor Seminar is also open to aspiring flight instructors

2023 DATES FOR AOPA INSTRUCTOR SEMINARS

30/31 May 2023 - 5/6 September 2023 - 21/22 November 2023 To be held at the AOPA HQ in Sevenoaks The cost for two full days seminar for non-members is £325 AOPA members benefit

TOPICS COVERED INCLUDE

- New/current rules/regulations, with emphasis on knowledge of UK-part FCL
- \cdot Teaching and learning \cdot Instructional techniques \cdot The role of the instructor \cdot
 - National regulations Flight safety, incident and accident prevention •
 - \cdot Teaching instrument flying \cdot Legal aspects and enforcement procedures \cdot
 - \cdot Navigational skills, new/current radio navigation aids \cdot Airmanship \cdot
 - \cdot Weather related topics, methods of distribution \cdot Human factors \cdot
 - Additional topics selected by the competent authority



For further details contact the AOPA office on **020 7834 5631** or email **mandy@aopa.co.uk**. You can also register for the seminar online at **www.aopa.co.uk**

General Aviation news from around the world



CAA SUSPENDS SWANSEA AIRPORT'S LICENCE

Civil Aviation Authority (CAA) inspectors visited Swansea airport in. February and suspended its refuelling licence before calling a provisional halt on the operating licence.

IT COMES less than a month after Swansea Council, which owns the facility, agreed to start negotiating a new lease with the current operator, Swansea Airport Ltd, to the consternation of campaigners who had urged the authority to consider other options.

Shortly before council chiefs decided to renew the lease, Swansea Airport Ltd said scheduled passenger flights between Swansea and Exeter would start at the end of March this year.

The CAA told the Local Democracy Reporting Service that it had provisionally suspended the operating licence due to a "systemic failure of safety management". It cited ineffective safety management, inadequate safeguarding of the aerodrome, and an absence of an accountable manager.

Swansea Airport Ltd director

Roy Thomas said he would be submitting an action plan, and that he expected to appoint a new accountable manager shortly.

Mr Thomas said the previous accountable manager had been in post on the day the CAA inspected but that he stepped down to another position very shortly afterwards for personal reasons.

Mr Thomas also said airport staff would focus more on ensuring the three-mile airport perimeter was secure from grazing animals.

He said the latest CAA action could put the Swansea to Exeter flights' plan back.

A spokesman for Exeter Airport said an airline operator has been in touch about a potential service to Swansea, but no names were mentioned.

The spokesman said: "We can confirm that we have been approached by an operator

"The CAA suspended the operating licence in 2019 on safety grounds"

interested in this route and are awaiting further details from them."

Swansea Airport Ltd took over an existing lease for the airport, at Fairwood Common, Gower, around 20 years ago. The CAA suspended the operating licence in 2019 on safety grounds, reinstating it two years later.

A number of airport users have claimed that the airport has become run down, and set up a group called Swansea Airport Stakeholders' Alliance. The alliance has submitted proposals to the council to take over the running of the airport, as has a businessman, Jim Blythe, who leases aircraft there.

Swansea Council's cabinet considered a request by Swansea Airport Ltd for a new lease at a meeting on January 19. A report said the tenant had strong legal rights to request a renewal. Cabinet member for corporate service and performance, Cllr David Hopkins, said there were current breaches of the lease as well as historic failings, but that the council had very limit legal grounds on which to oppose a renewal. The decision to start new lease discussions with Swansea Airport Ltd was made behind closed doors.

The cabinet report did recommend though that alternative lease terms were proposed and that the operator continued to invest in the airport.

RENO AIR RACES TO END THIS COMING SEPTEMBER

THE WORLD'S most famous air race championship will close its hangar doors after one last hurrah in September. The Reno Tahoe Airport Authority (RTAA) and the Reno Air Racing Association (RARA) announced that they have reached an agreement for 2023 to be the final year the Reno-Stead Airport will host the National Championship Air Races. The Reno Air Racing Association's final Reno-Stead Airport event is set to take place from September 13-17 and will feature the seven classes of air racing plus extraordinary military and civilian demonstrations that fans have come to love, as well as a celebration of the event's almost 60 years in northern Nevada. "We want to celebrate six decades of partnership, competition and airmanship which has brought our local community and aviation enthusiasts from all over the world together in this one-of-a-kind celebration of innovation and history," said Daren Griffin, President and CEO of RTAA. "While it's a bittersweet moment for our community and the RTAA, we are committed to working with RARA to ensure this year's event is a tremendous success as we close this historic chapter for the event in northern Nevada."

The National Championship

"We are in discussions with other venues to explore our options to continue" Air Races are a one-of-akind event that has called northern Nevada home since its founding in 1964. However, RTAA's concerns around challenging economic conditions, rapid area development, public safety and the impact on the Reno-Stead Airport are some of the contributing factors towards the final year of the National Championship Air Races. Fred Telling, chairman and

CEO of the Reno Air Racing Association said: "We are thankful to the RTAA for the opportunity to celebrate and share this event's storied history with the community and their commitment to work with us to make this year's event one of the best ever. We are in discussions with other venues to explore our options to continue the National Championship Air Races well into the future."



 Sikorsky has announced plans to produce a fully autonomous
 eVTOL prototype.
 Its Hybrid-Electric
 Demonstrator
 (HEX) will be used to evaluate large aircraft design, novel propulsion systems and sustained hover.

• After more than two years, Piper Aircraft has officially resumed tours of the manufacturing facilities at its headquarters in Vero Beach, Florida. The company postponed public tours in 2020 due to COVID-19.

• A pair of Boeing engineers hve set a new world record by flying a paper aeroplane 290ft. Dillon Ruble and Garrett Jensen broke the previous record of 252ft, 7 inches set by a trio from Malaysia and South Korea in April 2022.



DIAMOND Aircraft Austria and Lufthansa Aviation Training (LAT) have signed a Letter of Intent (LOI) to jointly explore and develop opportunities for a more sustainable flight training. The cooperation includes testing of the all-electric eDA40 in a real training environment, an eDA40 purchase intention to supplement the current DA40 NG fleet as well as analyses for the use of Sustainable Aviation Fuels (SAF).

Diamond Aircraft and LAT are both committed to the targets of the European Green Deal and the Sustainable Aviation Programme by EASA. With this collaboration both companies agreed on shaping a sustainable future for aviation together.

With the announcement of the all-electric eDA40, the company is taking its sustainable approach one step further.

With the #MakeChangeFly program, the Lufthansa Group wants to lead into a sustainable future with the goal of becoming carbonneutral by 2050.

RAF SCAMPTON TO REMAIN OPEN



The £300-million deal will see a regeneration of the site and will preserve the aviation aspect as well as provide education opportunities in aerospace

A LANDMARK deal has been agreed which will see West Lindsey District Council purchase the former RAF Scampton site from the Ministry of Defence. And in a back-to-back arrangement the Council will transfer ownership to its new development partner.

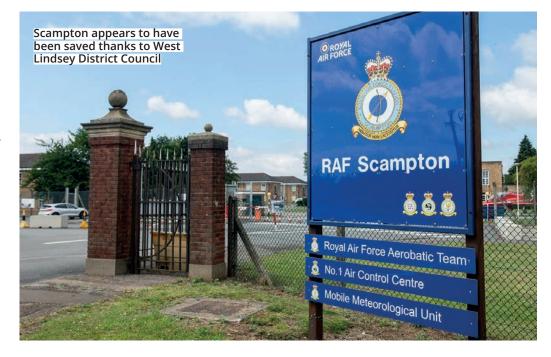
The Council announced that Scampton Holdings Limited has been selected as its Development Partner and under a Development Agreement they will regenerate the 800-acre historic site, following a successful public procurement exercise.

The deal, which will secure over £300 million of investment into the regeneration of the site will preserve, protect and enhance the site by providing aviation heritage, business, aerospace, space and aviation technology and education opportunities.

Since the closure of the base was announced in 2018, the Council has worked with the Ministry of Defence, local stakeholders and the community to ensure the best possible outcome for the site and its future positioning within the economy.

At the heart of the proposal is the continued use of Scampton as an operational airfield, which will assist in enabling investment.

A specific RAF Scampton policy was incorporated into the Central Lincolnshire Local Plan review to ensure the safeguarding and sustainable regeneration of the site post closure. At the centre of this policy is the need to holistically plan for site-wide regeneration that delivers benefit to the existing community at RAF



Scampton whilst providing an opportunity policy to secure regeneration and economic growth.

The Scampton Holdings Limited master plan is aligned with the emerging local plan policy. The final 'Main Modifications' consultation stage has now been completed with sign off of the revised Local Plan expected in early April.

Council Leader Councillor Owen Bierley said: "As we approach the significant milestone of the 80th anniversary of Operation Chastise – the Dambusters Raid – and will be remembering the important role that RAF Scampton played, the Council is proud to be taking this huge step to preserve and enhance the heritage of the site.

"The Council has always believed that whilst the site was deemed surplus to MOD "At the heart of the proposal is the continued use of Scampton as an operational airfield"

requirements, it should play a key role in Levelling Up opportunities across West Lindsey and Lincolnshire.

"I am delighted that Scampton Holdings Limited share the vision for the site, which has been based on significant public and stakeholder engagement through the Local Plan process. Taking what are considered to be unique features, such as the worldrenowned heritage, restricted airspace and strategic location, our new partner has been able to create a commercially viable and deliverable investment proposition and master plan.

"The Council has the resources in place to deliver the site purchase and Development Agreement and we look forward to working closely with Scampton Holdings Limited and the MoD in the coming weeks to complete the deal."

Chairman of Scampton Holdings Limited, Peter Hewitt said: "We are passionate about unlocking the future potential of this key site. We bring to the table a wealth of experience and knowledge across the aerospace, defence, aviation, heritage and hospitality sectors, which through our collaborative and partnership approach to regenerating the site, will ultimately deliver thousands of highly skilled new jobs in key growth sectors within the region."



We Make a Difference

Specialist Aviation Insurance Brokers

Connect with us for more information: T: +44 (0)204 511 4700 E: uk.genav@ajg.com

AJG.com/uk | The Gallagher Way. Since 1927.

Arthur J. Gallagher (UK) Limited is authorised and regulated by the Financial Conduct Authority. Registered Office: The Walbrook Building, 25 Walbrook, London EC4N BAW. Registered in England and Wales Company Number: 1193013. FP806-2022 Exp. 26.05.2023.

2023 Arthur J. Gallagher & Co. | ARTUK-5030



Hayward Aviation

Not sure how much flying you might do in the next 12 months



Buy an annual fixed wing aircraft Ground Risk policy and then Flight Risk cover for each day you actually fly.

Accessible via your smart phone; Fly-Buy offers the cover and peace of mind you need, at your finger tips!

Designed and developed by Gallagher Hayward Aviation.



Fly-Buy is an online avlation service provided by Gallagher Hayward Avlation, a trading name of the Arthur J. Gallagher & Co. global group of companies. For details of the registered office, company number and, where applicable, regulated status of our subsidiaries, please visit https://www.ajg.com/uk/legal-and-regulatory-information.



Simply scan this code, download the app, or visit **www.fly-buy.co.uk**



GET IN ON Google Play



A BELL 505 has completed its first flight fuelled solely by 100% Sustainable Aviation Fuel (SAF), marking the firstever single engine helicopter to fly with 100% SAF. Bell collaborated with Safran Helicopter Engines, Neste, GKN Aerospace and Virent Inc. to make this flight possible.

"This flight is a monumental achievement for sustainability and decarbonisation in the rotorcraft industry," said Michael Thacker, executive vice president, Commercial Business, Bell. "Showcasing a single engine aircraft's flight capabilities with 100% SAF signals Bell's commitment to alternative fuel and builds on its sustainability practices in its flight operations."

Valentin Safir, executive vice-president, Programs,

Safran Helicopter Engines said: "SAF is one of the key pillars in our strategy to decarbonise the helicopter industry. Our engines are certified to operate on up to 50% SAF and our objective is to certify in the coming years the use of 100% SAF, which can potentially result in carbon lifecycle emission reductions by 80%."

To achieve this flight, Bell collaborated with Safran Helicopter Engines, manufacturer of the Arrius 2R engine on the Bell 505; GKN Aerospace, the fuel system component supplier; Neste, the SAF supplier; and Virent, Inc., a Marathon Petroleum Corp. subsidiary that manufactures renewable fuels and chemicals. Safran Helicopter Engines and GKN Aerospace conducted thorough testing on the engine and fuel system components.

Neste and Virent collaborated to blend, test, and deliver the SAF for this project as a 100% drop-in fuel. SAF, made from used cooking oil or other bio-based feedstocks, typically must be blended with petroleum products because it doesn't include a component called "aromatics," which is required to meet today's aviation fuel specifications. Virent manufactures an aromatics component made from renewable plant sugars, which was added to Neste's neat SAF, eliminating the need to blend SAF with petroleum fuel. The SAF supplied for this test flight by Neste and Virent is therefore a "100% drop-in" replacement for petroleumbased aviation fuel, requiring no engine modifications.

"This flight supports Textron's Achieve 2025 Sustainable Footprint goal"

Bell's own training fleet and demonstration aircraft currently use SAF in their operations. The team continues to guide customer conversations around its implementation and monitors SAF testing in a dedicated Bell 505 with Safran Helicopter Engines. This flight supports Textron's Achieve 2025 Sustainable Footprint goal for 20% reduction in greenhouse gas emissions across the enterprise, among other sustainability initiatives.

ALL YOUR NEWS ON THE MOVE

CHANGED YOUR EMAIL or recently set one up? Let us know via the AOPA UK website (*Membership, Change of Details*), and keep up-to-date on all the latest news and more Update us now at www.aopa.co.uk

AIRWORTHY MOSQUITO TO BE BASED AT BIGGIN HILL

THE UK is set to have a Mosquito in the skies again soon and available for flying experiences.

Peter Monk, Managing Director of flyaspitfire.com and the Spitfire Company (based at Biggin Hill) has announced that we'll be seeing a Mosquito soon.

"Following previous announcements and patiently waiting for availability in a busy restoration programme we're delighted to confirm that we've now commissioned the team at AVSPECS NZ to commence the restoration of a Mosquito FB.VI . Upon completion the aircraft will join our fleet of two-seat Spitfires and other WWII aircraft that are available for flight experiences here at Biggin Hill," said Monk. The team at AVSPECS are



Fancy a flight in Mosquito over the UK? It's not too far away

leaders in the field of Mosquito restoration and this will be the fifth airframe that they have restored to an airworthy condition. "Whilst there's always an appetite for us to take on different restoration projects at our own 'Spitfire Factory' at Biggin Hill, the proven experience of the team at AVSPECS makes them an obvious choice for this project," Monk added.

The restoration is scheduled to take three years and once completed the aircraft will complete a tour of New Zealand, Australia and then on to the UK.

"We believe this will be the only airworthy example of the Mosquito in Europe and we're excited at the prospect of offering members of the public the chance to 'Fly a Mosquito' from Biggin Hill in 2026," concluded Monk.

AOPA NEWS HIGHLIGHTS

• According to a recent study by the University of North Dakota (UND), 56% of pilots based in the United States said that they had avoided some form of health care for fear of losing their flying privileges.

 Forbes is reporting that lithium battery fires on airliners are happening at a rate greater than one per week.
 The magazine reviewed data and found at least 62 battery incidents happened in 2022, up from 54 in 2021

• Pratt & Whitney Canada announced last week that its engines have now logged one billion flying hours since the company was founded in 1928. It has produced more than 110,000 engines to date.

FSDP CELEBRATE 40 YEARS OF SCHOLARSHIPS

FLYING SCHOLARSHIPS for Disabled People (FSDP) has entered its 40th year.

FSDP was set up in 1983 and has been providing flying scholarships for 40 years, enabling over 500 disabled adults across the UK to change their lives for the better through the thrill of aviation. To celebrate the 40th Anniversary, raise awareness of FSDP's work and generate additional funds, a number of activities are planned, along with a new logo.

The activites include: The Big Wing Tour – trustees and supporters will spread the footprint of the charity by visiting over 40 airfields across the country.

A special 40th Anniversary Gala Ball will take place on 16th September at The Royal Air Force Museum Midlands. Dining amongst the aircraft with a three-course dinner, auction and entertainment. Tickets are available by contacting: info@fsdp.co.uk

"We have now helped more than 500 people change their lives"

Guy Bowen, Chair of the Board of Trustees and son of Air Tattoo founder Paul Bowen said; "The charity has been changing lives for 40 years and it's only right that we celebrate this and raise awareness of the positive impact of receiving one of our scholarships. FSDP scholars have a range of disabilities including amputation, paraplegia, multiple sclerosis, cerebral palsy and poliomyelitis. We have now helped more than 500 people change their lives by experiencing the joy of freedom in the air, learning new skills and regaining their confidence."

THE INTERVIEW

Andrew Panton

We interview the man behind the new WWII film Attack on Sopre Dam



Andrew Panton has just finished directing 'Attack On Sopre Dam', a film based on the account of George "Johnny" Johnson, a WWII vet who flew in the infamous Dambusters raid, but his account isn't as well known. Here, Andrew talks about why bringing this story to life on the big screen is so important.



What is this film about?

Attack on Sorpe Dam is based on a true story of an event set within the context of the RAF bomber offensive on Nazi Germany, during the Second World War. The story features a first-hand account from the perspective of George "Johnny" Johnson, a young 21-year-old RAF 617 Squadron bomb aimer.

The film follows the story of Johnny and his aircrew from March 1943, on joining a newly formed squadron, for a top secret, special operation that has the potential to shorten the war in Europe.

The film features the dangerous low flying training and highly unusual bombing practices, leading up to the operational briefing on May 16th 1943. Johnny and his crew finally discover what they are expected to do and are presented with what seems like an impossible task. They are to fly at 100 feet in a four engine Lancaster bomber at night, over many miles of occupied enemy territory. On reaching the target, they need to drop a new weapon that has never been tried operationally, with pin-point accuracy and in a way they had not practiced and then make their way back home safely.

Johnny provides a fascinating insight from an aircrew perspective throughout the training and lead up to the Dambusters operation.

He vividly describes how his Lancaster attacked the Sorpe dam and the sights he saw flying over the breached Mohne dam on the return journey. The film concludes with Johnny reviewing the outcome of the Dambusters operation and sharing some final thoughts.

What inspired you to make this film?

When I first met Johnny I soon realised how much it meant to him to have a film where he himself could provide a firsthand account covering the complete story of what actually happened on the night of May 16/17 1943, when his Lancaster bomber attacked the Sorpe dam in Germany, as part of the Dambusters operation.

As the Sorpe dam was not breached, I could see this has tended to be a lesser wellknown part of the Dambusters story. However, it was clear the story behind how the dam was attacked is truly remarkable and deserves to be remembered.

I decided to help Johnny and set out on a journey to produce a film that could be shared as part of a live public presentation. The overall aim was to preserve Johnny's first-hand account in film, so it could be shared for many years to come.

Why should people watch this film?

For the first time there is a film which features the complete story of how Johnny and his aircrew attacked the Sorpe dam, covering the journey to the dam, the attack and the journey back to Scampton.

The film helps people understand some of the lesserknown facts about how the Sorpe dam was attacked which required a completely different method of attack compared to the Mohne and Eder dams. Johnny reveals just how challenging this was, as they had not practiced this method of attack.

The film is unique as it is the only one of its kind narrated entirely by a Dambuster veteran telling the story exactly as it happened.

One aspect of the film which makes it worth watching in particular, are the visuals effects that totally reflect the narrative. The visual interpretation has been created to exactly match the narrative, helping the audience really understand and experience the events.

What were some of the highlights of the project?

In the early years of the project there were a number of very memorable events. Reuniting Johnny with the Lancaster bombers at the RAF Battle of Britain Memorial Flight and Lincolnshire Aviation Heritage Centre was a special highlight. He was able to get back into the Lancaster, as well as witness the four Merlin engines at full power.

At the age of 95, Johnny took his first flight in a helicopter and what a flight that was. Sitting in the front of the helicopter he was flown at very low level across the Derwent dam reservoir in Derbyshire. Using a replica hand-held wooden bombsight, once again after 74 years he practiced lining up on the two towers of the Derwent dam, truly remarkable!

I think the biggest highlight was taking Johnny back to Germany. We flew over the Sorpe dam, following the same line of attack his aircraft flew 75 years earlier. Although we were not flying at 60 feet, the experience was truly amazing and Johnny said it was one of the highlights of his life, where the years just melted away back to 1943.

Read more about Attack On Sopre Dam on page 38.

POOLEYS

- EST. 1957 -

Over 2800 Products in Stock



Pooleys Flight Equipment is an Official Dealer for Garmin Portables & Accessories

Pooleys Pilot's Diary 2023



You'll also find our products at over 99% of flying schools throughout the UK. Get a 5% discount from Pooleys at www.pooleys.com by using the promotional code 'AOPA' Shops at: Cambridge | Cranfield | Elstree | Oxford | Turweston | Wilson-Kenya

Freephone: 0800 678 5153 | Email: sales@pooleys.com | Web: www.pooleys.com

WORDS & IMAGES Redbull Content Pool

A PAD

BLEM

THE LANDING

DATE: March 14, 2023 TIME: 6:58am local time LOCATION: Burj Al Arab, Dubai, United Arab Emirates DIAMETER OF HELIPAD: 27-metres PLANE: CubCrafters Carbon Cub UL LANDING SPEED: 25 kts (48 km/h, 29 mph) LANDING DIRECTION: 049 North East Direction METERS TAKEN TO LAND: 20.76m

Polish pilot **Luke Czepiela** brings fixed-wing CubCrafter's aircraft to stop on possibly the world's most famous helipad



OLISH PILOT Luke Czepiela has spent his life pushing the limits of aviation and has added another career feat by becoming the first person in history to land an aeroplane on the helipad atop the iconic Burj Al Arab Jumeirah in Dubai.

Here is all you need to know: 39-year-old Czepiela, an air racing champion, had just 27 metres to bring his CubCrafters-built STOL aircraft to a stop on the helipad and achieved the feat in just 20.76 metres – but he also had to takeoff again to get the aircraft back on the ground.

"To be honest I couldn't feel happier! Two years in the making, third attempt (to land) today and everything was perfect," explained Czepiela. "We've managed to put an aeroplane on a helipad 212 metres above the ground, on the most iconic, the most beautiful building in the world. The best bit after the landing was the take-off, I had so much fun just dropping the aircraft out of the sky and diving almost to beach level."

While the aircraft is specifically made for abrupt landings in ordinary circumstances, landing it on a platform raised 212 metres in the air on top of a 56-storey building and with no visual cues to guide him in, Czepiela's historic landing took place under extraordinary circumstances. "The biggest challenge was the lack of any external points of reference, which is usually found at an airport where you have hundreds of meters of runway," added Czepiela.

It's been a long time in the making. In preparation Czepiela made 650 test landings at ground level – in Poland, the US, and Dubai – building his confidence to land on the elevated helipad.

Czepiela's process began at his home airfield in Rudniki, Poland in May 2021 to see if the flight would be possible. "The helipad disappeared over the nose of the aeroplane and my periphery was reduced, I had to rely on my practice and instincts" After 200 tests, Czepiela was satisfied it would be possible to land within the space of the helipad. In January 2023 Czepiela had the first tests with the new aircraft. These flights proved the modified CubCrafter would do the job. Among 250 landings, the shortest achieved landing was just eight metres. After dismantling and then reassembling the aircraft for its transport to Dubai, Czepiela performed a further 200 test landings to adjust to the flying conditions and temperature of Dubai.

Testing took place in February, one month before the landing on the Burj Al Arab.

"Normally when approaching a runway, I see how high above it I am, and I can easily control the approach path. Today the helipad disappeared over the nose of the aeroplane and my periphery was reduced. I had to rely on my practice and instincts when my last few references went away if I wanted to come to a stop before running out of space."



- 1. Luke Czepiela admires his CubCrafter's Cub after landing back on solid ground
- 2. Checking the 'runway' before he attempts to do what has been unthinkable
- 3. The heavily modified CubCrafter was the perfect partner for Luke to attempt this feat

THE PILOT

NAME: Luke Czepiela NATIONALITY: Polish AGE: 39

ACHIEVEMENTS, PREVIOUS PROJECTS: Red Bull Air Race World Championship title in the Challenger Class. He landed on the iconic wooden pier in Sopot, Poland. He flew under three bridges in Warsaw.

ABOUT: The first Polish pilot to compete in the Red Bull Air Race, winning the 2018 world championship Challenger Class title. He has logged approximately 12,000 flying hours and earned a number of licences and qualifications. On a daily basis, he's the captain of an Airbus A320.

TREA

FREEL

THE AEROPLANE

AIRCRAFT TYPE: Carbon Cub ENGINE: Titan CC340 WHEELS: 29", lightened Alaskan Bushwheel BRAKES: standard LANDING GEAR: equipped with custom ACME shock absorbers AVIONICS: Garmin PERFORMANCE: Engine power: 180 HP (with NOx injection - 230 HP) PROPELLER: light, composite with the pitch ensuring maximum acceleration STALL SPEED: 27 kt (50 km/h) CRUISE SPEED: 110 mph (177 km/h) MAXIMUM FUEL IN THE TANKS: 22 gallons (7 for the attempt + 15 for the ferry flights) / 83.5 l (26.5 + 57)

MODIFICATIONS COMPARED TO THE BASIC MODEL:

• The fabric covering fuselage and wings was replaced with a lighter one

- Additional fuel tanks were removed, and the main tank was moved rearward
- The luggage compartment was removed
- The propeller was swapped
- The pilot's seat was replaced with a lighter one
- The battery was replaced with a lighter one and moved rearwards
- The seat belts were replaced and modified
- The avionics were swapped for lightweight panel from Garmin
- Nitrous Oxide was added
- A carbon tail shield was installed
- The suspension was replaced with lighter and softer one – front and titanium spring on the back
- Special 29" wheels were installed

• A smoke generator was installed POTENTIAL RANGE: 2.5 hours LENGTH: 7.1 m (23 ft 3 in) HEIGHT: 2.54 m (8 ft 4 in) WINGSPAN: 10.44 m (34 ft 3 in) WINGS SURFACE: 16.6 m2 (179 sq ft) COCKPIT WIDTH: 76 cm (30" @ pilot position) COCKPIT HEIGHT: 132 cm (52" @ pilot position)

WEIGHT: 425 kg (936 pounds)

The helipad on the Burj Al Arab Jumeirah has been used in previous stunts, such as when Champions Roger Federer and Andre Agassi played tennis in 2005, and in 2013, David Coulthard performed donuts in a Formula One car.

Guiding Czepiela onto the helipad was renowned American aviation engineer, fabricator and aircraft builder Mike Patey, who modified Czepiela's aircraft with the team from CubCrafters. Patey and CubCrafters made a number of modifications, reducing aircraft weight to 425 kilograms, moving the main fuel tank to the rear of the aeroplane to allow for more aggressive braking and adding nitrous to enhance power for Czepiela's secondary challenge - taking off from the helipad.

"In the lead up, our biggest challenge was reducing the weight," recalled Patey. "Any mass in motion wants to keep rolling and if we couldn't stop it, Luke would have bailed off the other side of the building. But a lighter aeroplane also means wind throws it around more, and you have less control. In this environment – with a tall building sticking up next to the helipad – weird wind currents go over the top and around the side of it. So we wanted some nice headwind to help the landing, but not too much. This was a truly unique challenge. It's a love-hate thing."

The second challenge of the stunt was the take off. Taking off in a space the size of a tennis court meant that Czepiela needed a low-weight, high-power output solution. "We added nitrous tanks to get a lot of power without a lot of weight. This fuel speeds up combustion in the engine, pushing its cylinders to accelerate more quickly.

"The Carbon Cub is the right aircraft for this project, but we needed the right person to fly it. And there are only a couple on this planet I would feel comfortable making this attempt. Luke is exactly that "So we wanted some headwind to help the landing, but not too much. This was a truly uniqu challenge" guy." Patey continued. Czepiela recalled the moment when the perfect weather conditions arrived for him to attempt his world-first landing. Czepiela said: "Once I got to the aircraft and I started practicing with the little wind, I felt so confident, I felt so good. I just played some music in my helmet and Mike said the magic words 'wind is steady at seven knots', and I said 'ok let's drop this baby down on the pad'. When I landed, I couldn't stop myself. I was running, I was shouting, and everyone was hugging each other. We landed an aeroplane on the helipad on top of the Burj Al Arab. I have too many emotions to give you technical details. We landed a plane on a helipad!"

He concluded: "From the first arrival here at the Burj Al Arab almost two-years ago we set out a plan how to do it, and now we've completed the plan, and everyone played their role exactly as scheduled. I feel awesome, there is no other word to describe it!"



- 1. Mike Patey hugs Luke Czepiela after the successful landing on the helipad
- 2. The take-off looks like it was much more fun than the landing
- 3. And we have touchdown!

WORDS & IMAGES Richard Berliand

Ferrying a Cirrus from Me US to the UK, sounds Ike fun doesn't it? Well, maybe not in winter...

AOPA Aircraft Owner and Pilot April



AVING TAKEN delivery of a new Cirrus SR22T Generation 6 in

November 2022 in Knoxville, Tennessee the mission was to ferry the aircraft back to the UK. This is the story of that mission.

Although there were times in the distant past when aircraft were dismantled, shipped by sea and reassembled in Europe, nowadays all Cirrus aircraft are delivered to Europe via the well-trodden ferry route that was established during the Second World War. This takes you from the United States up to Labrador in Canada, across to Greenland, onwards to Iceland and finally through to the UK or mainland of Europe via Scotland.

Undertaking this journey is a lot easier in the summer with long hours of daylight and warmer temperatures, but we were going to be making the trip in December when the sun is only above the horizon in southern Greenland for 5½ hours per day and temperatures on the ground were likely to get down to minus 20 degrees centigrade in Canada.

The delivery process at **Cirrus's Vision Center Campus** in Knoxville is a tremendous experience - plenty of theatre as the new aircraft is unveiled and then an outstanding training programme to convert on to the new SR22T with their **Cirrus Standardised Instructor** Pilots (CSIP) team. I spent three days with Ed Watters in Tennessee, North and South Carolina getting on top of the new aircraft. However, rather than simply bore holes in the sky, Ed organised a packed schedule in the area, which included a visit to the production line at the BMW factory in Spartanburg, South Carolina, a meeting with Howie Franklin at Cape Fear Regional, North Carolina (retired Air Force One steward who served five presidents) and an overnight at the golfing mecca of Pinehurst in North Carolina. Then we headed along the Smoky Mountains for a lunch

FAST FACTS 3,630 NAUTICAL MILES 23.7 FLYING HOURS -20 TEMPERATURE 5.5 HOIURS OF DAYLIGHT 1,500 LONGEST LEG, IN NM outside Washington DC and up to New York to await a weather window for the crossing. I can't thank Ed enough for making the delivery and transition training programme such fun.

Cirrus Aircraft have a small group of experienced ferry pilots with whom they work on the transatlantic deliveries. Most of the pilots collect the aircraft in the US and, with minimal fuss, deliver to the European customers, many of whom do not even visit the Knoxville Campus and therefore only see their new aircraft for the first time when it arrives at their chosen delivery location in Europe. Some new owners choose to take delivery in Tennessee, undertake training there but fly back commercially to Europe, leaving the ferry flight to the experts. Finally, a small number get the opportunity to join the ferry pilot for the journey of a lifetime.

I was very lucky to have Mike Bradford assigned to accompany me on the crossing – someone who has done this many hundreds of times and has the perfect demeanour for the mission. So, on arrival in New York I made contact with

32 | COVER STORY Ferry Flight

Mike who had recently been trying to ferry a Cirrus SR20 across to Europe but had found the winter winds uncooperative and had got stuck in Canada. Indeed, for the weeks ahead we seemed to face forecasts of endless headwinds in the north Atlantic between Labrador, Greenland, Iceland and Scotland. After waiting for three days in New York, with poor forecasts as far as we could see, I had to fly back to the UK and abandon the Cirrus at Westchester County airport near New York.

Mike and I stayed in touch, working around my schedule and the Atlantic forecasts and, after a wait of nearly three weeks, taking us into early December, we finally met up in New York and set off.

OFF WE GO

First stop was Burlington, Vermont, 235nm to the north, to visit US Customs & Border Protection to process the export papers for the aircraft

and apply for CANPASS (Canada Border Services) clearance to allow arrival into Goose Bay, Labrador. Aside from some icing coming into Burlington, the 1.8hr first leg of the journey was uneventful but, despite good weather at Burlington, the synopsis at Goose Bay was far from encouraging with a stationary front stuck along the coast of Labrador with low ceilings and freezing rain - that put paid to our plans to push through to Goose Bay that day and we had to overnight at Burlington.

The next day produced cold crystal-clear skies at Burlington and the front was now moving very slowly off the coast at Goose Bay. So, we commenced the 760nm leg to Goose Bay at 10,000ft with the early part of the journey offering stunning views along the St Lawrence River, past Quebec City and Sept-Iles. Approaching Labrador, as it started to get dark, we hit the edge of the stalled front and the "However, the Cirrus was in its element, coping well with the icing as we made our approach into Goose Bay" weather started to deteriorate. However, the Cirrus was in its element, coping well with the icing as we made our approach into Goose Bay, landing in snow and mist down to minimums – 4.7hrs in all and how different this was from Burlington – it really felt that we were in a remote winter location.

The FBO team at Woodward Aviation were very welcoming but they couldn't offer hangarage - this was going to be a challenge with the snow and the temperature forecast to drop to as low as minus 20 degrees centigrade overnight - however, that was a problem to be faced in the morning! For now, we headed to Mike's favourite haunt for dinner, Trappers' Cabin, where it was a "cook-it-yourself" arrangement on the grill, and then for a short night at Hotel North - not exactly luxury, but who cared? Next morning, we left the hotel at 04:00 and returned

to Woodward Aviation – the temperature was minus 19



- 1. The Hudson River run flying up the western side of Manhattan is a still a privilege available for GA pilots
- 2. Low level over the icecap in south-eastern Greenland
- 3. Nearly home overhead Aberdeen almost as much snow as in Iceland

On the ramp at Narsarsuaq in southern Greenland – the only movement of the day

all and its

-

140

At FL110 over the Denmark Straits between eastern Greenland and Iceland – the Aurora Borealis dancing around a full moon degrees, so it required a full hour of pre-heating on the engine with external air blowers into the cowlings and de-icing of the wings before we could get going. That gave us time to file flight plans, assess the weather and head over to Irving Aviation to collect the life raft and survival suits. The good news was that, despite the slow-moving front suggesting more freezing rain, it had moved far enough offshore that we were going to be able to climb over the top of it immediately after departure.

OVER WATER

So, the next leg of 685nm took us from Goose Bay to Narsarsuaq – the first of the long over-water parts of the journey. I have to confess that the adrenaline was running in the dark climb-out, as this was longer than any over-water flight I had done before: we had to be honest with ourselves that nobody was going to come and get us if something went wrong. However, once in the cruise at 15,000ft with the sun starting to show above the horizon, it all became more like "business-as-usual".

We cleared the front as we approached Greenland to be presented with the most spectacular view of the west coast of this amazing snowcovered land. Switching the barometric pressure setting from US inches of mercury to European hectopascals, we set the scale for 1049mbs - another of those very powerful Greenland highs that produce extraordinary visibility. Narsarsuag is located up a long fjord on the southwestern coast of Greenland: the airport was built by the US Defense Department in the early 1940s, then operating under the codename of Bluie

"The adrenaline was running in the dark climbout, as this was longer than any single-engine, over-water flight I'd done"

West One, to act as a base for aircraft escorting the Transatlantic convoys and also as a ferry staging post to enable the more than 10,000 aircraft that were made in the US and Canada to be sent to the European theatre of war. On the day of our visit, we were the only movement: the future of the airport is in doubt as there are potential plans to replace it with a new international airport at Qagortog about 40 miles to the southwest, nearer to the inhabited parts of the southwest of Greenland. The approach into Narsarsuag is breath-taking, flying up the frozen fjord with glaciers behind the airport on final is truly memorable. A 4.2hr leg to remember.

After a very hospitable reception at Narsarsuaq, the plan had been to head direct to Reykjavik in Iceland. However, the persistent headwinds that had delayed our trip were again in evidence, so we decided to route over the icecap and follow the east coast of Greenland to Kulusuk for an additional fuel stop. I have to confess that I was thrilled to have to take this longer routing as it was going to take us over some spectacular scenery that many people see from 33,000ft when flying commercial from Europe to the USA, but rarely from low

level in a Cirrus.

Following departure out over the fjord, we climbed up over the icecap staying low level over the ice but maintaining a continuous climb - it's truly surprising to see how high the icecap rises and we had to climb to 9,000ft to stay clear of the "terrain" – it's a mass of smooth white "nothingness" once you get away from the coastal mountain ranges. The flight up the uninhabited southeast coast of Greenland is indescribably beautiful. We were aiming for Kulusuk, a 405nm leg to the only runway in south-eastern Greenland. It was built on a small island by the US Defense Department in the 1950s, to support their now defunct Distant Early Warning Line (DEW Line) Station. It's also located not far from the long-abandoned World War Two US airbase codenamed Bluie East Two, operational between 1942 and 1947. Today, Kulusuk has a gravel airstrip and amazingly offers 100LL AvGas. We approached as darkness was falling with breath-taking views of the mountains on final – a 2.8hr leg.

A quick refuel turnaround before filing for Reykjavik in Iceland. Departing for the 420nm leg into the dusk with a climb to FL110 we were met with a stunning full moon reflecting in the Denmark Straits that stretch between the Atlantic Ocean and Greenland Sea and in totally smooth air – it was a truly serene experience that was about to become even more special as the Aurora Borealis came out to dance around the skies. Sitting at the helm of a Cirrus in the darkness at 11,000ft with a full moon reflecting in the sea and the winter lights displaying for us: as Mike said: "you surely can't get closer to God on

this planet than this!". It was a magical moment...

A 2.9hr leg brought us on to the RNAV01 approach into Reykjavik for a landing on the northerly runway with a beautiful view of the city lights and the famous cathedral as a backdrop. I have to confess to having been quite hungry and tired, we had done nearly 10 hours of flying and covered over 1,500nm in one day.

The following morning, the temperature had dropped to minus 9 degrees in the night producing a lot of contamination on the wings, so much time was spent with the TKS fluid manually removing all the frost and ice as we had again not been able to secure hangarage. Departure to the south put us on track for the 640nm leg to Wick in northern Scotland as we climbed out over the Iceland snow-cap and coasted out near the volcanic island of Surtsey, created by an underwater eruption in the 1960s. Weather was good to start with but an active front lay across our track between

the Faroe Islands and Scotland. We ended up cruising at FL210 to stay above the weather but had to descend into snow showers for the RNAV31 approach into Wick, landing after four hours.

The good news was that they had hangarage; the bad news was that southern England was experiencing snow and freezing fog – Manchester and Gloucester airports had both suffered SNOCLOS. It didn't look good for the next leg, so we decided to overnight in Wick. However, it was a chance to hand back the survival gear, be glad that the single-engine over-water mission had been so uneventful – the Cirrus had behaved impeccably.

The final leg the next day was from Wick to Biggin Hill – a 3.3hr 495nm leg with uncertain weather down south. We had hoped to go into Gloucester, but their snow-clearing equipment was still out of action and the airport closed, so Biggin was our choice but with uncertain freezing fog clearance forecasts on "Although the fog didn't clear as forecast, we had a smooth run down south and landed in ILS minimums at Biggin" the TAF. As we headed down the east coast, the EGKB METAR kept flipping above and below minimums, so we were prepared to stop in the north of England. Fortunately, although the fog didn't clear as forecast, we had a smooth run down south and landed in ILS minimums at Biggin to complete our five day mission from New York to London. We had flown 3,630nm in 23.7hrs.

Single-engine over-water operations probably aren't for everyone, but the journey to bring an aircraft from Tennessee back to London has been one of life's great experiences and I can't recommend it more highly, especially in an aircraft as well equipped as the Cirrus SR22T. It was a true pleasure to make the flight with someone as well-qualified as Mike Bradford, someone who is one of life's greats - thank you, Mike for creating that memory. Nothing can beat the sight of the northern lights at altitude with a full moon reflecting in the dark sea!

TECH SPEC Cirrus SR22T Generation 6

SPECIFICATIONS

Base price: \$779,900 Powerplant: Continental TSIO-550K Turbocharged Horsepower: 315 bhp Range: 1,021nm at 56% power Height: 8ft 11in Length: 26 ft Wingspan: 38ft 4in

Seats: 5

Cabin height: 50in Cabin width: 49in Empty weight, standard: 2354 lbs Max takeoff weight: 3,600 lbs Max ramp weight: 3,600 lbs Max zero fuel weight: 3,400 lbs Max useable fuel: 92 US gallons

PERFORMANCE

Max cruise speed: 213 KTAS Max operating altitude: 25,000 ft Takeoff distance: 1,517 ft Takeoff over 50 ft obstacle: 2,080 ft Climb Rate: 1,203 fpm Stall speed with flaps: 60 KCAS Landing Ground Roll: 1,178 ft









Dusk with a full moon rising over eastern Greenland on the ramp at Kulusuk 37

WORDS Andrew Panton IMAGES Courtesy of Attack On Sopre Dam

A NEW ANGLE ON THE DANBUSTERS

Andrew Panton has directed a film based on the account of George "Johnny" Johnson... this is the story of *Attack On Sorpe Dam*

N 2017 film

makers Andrew Panton and Piotr Forkasiewicz met George "Johnny" Johnson. Johnny was the last surviving member of the Dambusters aircrew from the war but sadly passed away in December last year at the age of 101.

Johnny explained how the attack on the Sorpe dam involved a completely different method of attack compared to the Mohne and Eder dams. He pointed out that the attack on the Sorpe Dam was not featured in the original 1955 Dambusters movie. With this in mind Andrew and Piotr decided to set out on a journey to create a film that tells Johnny's own Dambusters story in a way he wished it to be remembered.

The Attack on Sorpe Dam film follows the story of Johnny and his aircrew from March 1943, on joining a newly formed squadron, for a top secret, special operation that has the potential to shorten the war in Europe. Johnny describes the dangerous low flying training and events leading up to the operational briefing on May 16th 1943. Johnny and his crew finally discover what they are expected to do and are presented with what seems like an impossible task. They are to fly at 100 feet in a four engine Lancaster bomber at night, over many miles of occupied enemy territory. On reaching the target, they need to drop a new weapon that has never before been tried operationally, with pin-point accuracy and in a way they had not practiced and then make their way back home safely. Nothing like this had ever been attempted.

"Johnny and I wanted this film to provide an accurate representation of what actually happened," said Andrew Panton, the film's director. One of the unique aspects of this film is that Johnny provides the entire narrative, telling the story in his own words, exactly as it happened. Furthermore, the visual effects reflect the narrative. The visual interpretation helps the viewer understand and experience the events as Johnny describes them. For people who are looking for a historically accurate first-hand account, of what it was like to be a part of the Dambusters operation, brought to life with new visual effects, this film is for them.

"In the early days of the project we were fortunate to visit RAF Scampton and do some in context interviews with Johnny to capture specific insights," explained Panton.

In 2017 and 2018, at the age of 95 Johnny flew in the front seat of a helicopter along the Derwent dam reservoir and using a replica hand-held wooden bombsight he once again practiced lining up on the two towers of the Derwent dam. The last time he would have done that was in 1943.

"The biggest highlight of the research was to take Johnny to Germany and again put him in the front seat of a helicopter," said Panton. "This time we flew him over the Sorpe dam and followed the same line of attack his Lancaster AJ-T flew on the night of May 17 1943. Although we were not flying at 60 feet, Johnny said that was one of the most memorable moments of his life. We then flew over the Mohne dam which again was something special for Johnny as the last time he saw this dam from the air was on his way back from the Sorpe dam when he saw it had been breached."

Being able to interview Johnny at the Sorpe and Mohne dams allowed Panton to establish specific details regarding the line of attack and the routes taken which needed to be shown in the film. The support of Dr John Sweetman author of Operation Chastise and Dr Robert Owen, Official Historian of the 617 Squadron Aircrew Association has been much appreciated in making sure specific details in the film are accurately depicted.

The film project has been based on the collaboration of two people, Piotr Forkasiewicz and Panton, and evolved from something quite small back in 2016 into something much bigger now today. Along the journey many people and organisations have provided support to help make sure we could preserve Johnny's story for current and future generations.

Piotr Forkasiewicz was the person responsible for bringing Johnny's story to life with the visual effects. According to Panton there were many scenes we simply could not film in the real world. "I have been very grateful for the support of the CAMERA team at the University of Bath. Martin Parsons and his team helped create the digital world. It feels satisfying to know Piotr and I achieved what Johnny wanted and his complete story in his own words is preserved in film."

Piotr Forkasiewicz first met Andrew in 2015 and could never have imagined that he would be embarking on a journey to create a film that features Johnny's Dambusters story. "As a film and aviation enthusiast I have always had an interest in the Dambusters story," said Forkasiewicz. "After meeting Johnny in 2017, I could see his part of the Dambusters story has not had so much attention. I felt that Johnny's complete story should be captured in film. It was clear to me there was an opportunity to make a fascinating film and as a visual storyteller I could work on something very special."

Forkasiewicz worked as a military illustrator for many

years, producing still images for the publishing and scale model industry. And the film has given Forkasiewicz the opportunity to significantly expand his skillset. "Throughout the production there were many challenges. Having a digital Lancaster bomber was critical," said Forkasiewicz. "Fortunately, by the time I started this project I already had one as I had spent eight years creating a 3D Dambuster Lancaster model for a book titled Dambuster Lancaster. Thanks to Mark Postlethwaite and other Lancaster bomber experts I was able to create the Avro Lancaster BIII Type 464 Provisioning variant."

The film required a very high level of historical accuracy which meant creating specific scenes as they would have looked in May 1943. These scenes included the Sorpe and Mohne Dams as well as RAF Scampton and the island of Vlieland on the Dutch coast. All the locations look quite different now compared to 80 years ago and had to be created digitally.

The main focus of the action takes place over the Sorpe Dam. Both Panton and Forkasiewicz wanted the film to look exactly as it did on the night of May 16 1943.

The assets creation was just the beginning of the work. The models had to be rigged so they could be prepared for animation and then animated. All the 3D scenes had to be properly lit and each shot had to be designed with digital cameras. The smoke and water effects had to be properly prepared and calculated in simulations.

"Towards the end Andrew and I were fortunate to have the support of Martin Parsons and his team at CAMERA University of Bath. Martin's team were instrumental in creating the moving digital characters that really helped bring my digital environments to life," said Forkasiewicz. "The film required a very high level of historical accuracy which meant creating specific scenes as they would have looked in May 1943"

The CAMERA team were able to create digital 3D scans of RAF aircrew and ground crew, WAAFs and even German anti-aircraft gunners. Using motion capture technology the CAMERA team were then able to record the body movements of actors dressed in motion capture suits. Forkasiewicz was then able to apply these motion files to digital characters and make them move with human movements and behaviours. This allowed the creation of several scenes that were impossible to film in the real world such as the scenes on the airfield where the aircrews are getting in and on the crew buses and boarding the Dambuster Lancaster aircraft. The team were even able to use a human actor for Wing Commander Guy Gibson addressing the aircarew.

Attack on Sorpe Dam will have the worldwide premiere in a Bristol cinema on Saturday May 13th after which the film will go on a tour around the UK.



- 1. The actors were all on hand to recreate the atmosphere of RAF Scampton in 1943
- 2. Johnny narrates his experience form 1943 over the backdrop of a stunning recreated bombing raid
- 3. The anti-aircraft guns were just one of the obstacles Johnny and his crew had to overcome on the mission
- 4. The Lancaster Bomber has been the star of many war films, this is another one on its resume

A fantastic recreation of the attack all rendered by a highclass team of VFX experts



DIRECT TO YOUR DOOR SIX TIMES A YEAR

Your **AOPA membership** opens up **a whole world of aviation** to you, including the bi-monthly magazine



All you need to get the most out of your flying. To advertise contact Charlotte at charlotte@aopa.co.uk

CLASSIFIED ADS

AIRCRAFT FOR SALE



offer a professional, friendly & individually tailored service to both business & private clients to suit your specific requirements & budget



TECNAM P2006T Light Twin Tourer/Trainer (2016)

TTAF&E 431 Hrs. Props 69 Hrs. 5 year items c/w at the 2022 Annual Inspection. Annual & ARC valid to Feb/2024. Garmin G950 EFIS IFR Package w/GDU 1040 PFD & GDU 1040 MFD, KR87 ADF, KN63 DME, GTX33 Mode S, S-TEC 55X Dual Axis A/P, TAS 600 Traffic Avoidance, Wx500 Stormscope. 406Mhz ELT. Hangared since new. Can run on either AvGas or MoGas, or a mix of each. **GBP£379,000 Plus VAT for the UK**



PIPER NAVAJO 325 C/R (1977)

This is the variant of the Navajo with the 325HP contrarotating engines [rather than the usual 310s). TTAF 1915 Hrs, Engines 130 Hrs each. Props are away for overhaul [on calendar time]. Fresh Annual & ARC when the props come back. Six forward facing rear seats. Garmin & King avionics - details and full spec sheet will be on the website soon.

USD\$275,000 [Plus your country's Import taxes]

CHECK WEB SITE FOR LATEST LISTING - WHICH CAN CHANGE AT SHORT NOTICE - IF YOU ARE A SELLER -DON'T FORGET TO CHECK THE WANTED PAGE ON THE WEB SITE.

DERRICK INGS AIRCRAFT SALES PO Box 1559, Gillingham, Dorset, SP8 4WB, UK. Tel: +44 (0)1747 825378 Mobile: +44 7836 708564 Email: sales@derrickings.com

www.derrickings.com



TTAF 12637, Engine 235. Currently privately owned, last Annual Sep 22, ARC due Sep 23. A very tidy and well-maintained aircraft. £50,000 ONO

> Contact Keith +44(0)7742 249253 or James +44(0)7792 126101



Built in 2000 this white with blue strip motor glider is in superb condition and comes with a new ARC. Based at Lasham and always hangered. GTR 225A Garmin 8.33 Khz. Transceiver. New ELT. New S Mode Transponder. New vacuum pump. New DI and AH. New LX VSI with glide computer. Naviter GPS with Oudie 2 (See You installed). New propeller with zero hours. Rotax 912 engine with 830 hour remaining.

FOR SALE @ £65,000.00 + VAT (shares considered) Contact Richard Morgan on 07785 771669 or rtm6@btinternet.com



Please contact **CHARLOTTE PULHAM** at **charlotte@aopa.co.uk** +44(0)1487 830105 Or +44(0)7583 140127

CLASSIFIED ADVERTISEMENTS

AIRCRAFT FOR SHARE



Based on a farm strip (800m 24/06) between Grantham and Sleaford in Lincolnshire. Excellent availability. easy rollout from front of secure, alarmed hangar. No other aircraft. TT Airframe: 3,913hrs. Engine: 0-200 1,658hrs. Garmin GTX330 Transponder. VOR. Trig 8.33 radio £65/month and £75/hr wet. 1/3rd share £15,000.

Contact David 07977 907024 skyranger112@gmail.com



MOONEY 201 HANGARED AT BOOKER WITH GTN 750 Share £2,999 Monthly £130 Hourly £170 Contact details @ www.zitair.aviators.net



Please contact CHARLOTTE PULHAM at charlotte@aopa.co.uk +44(0)1487 830105 or

+44(0)7583 140127



Cherokee PA28-180 hangared at Popham. 11th Share price £3500 ono. £100/ month, £90/hr wet. 2019 avionics upgrade. Resprayed 2020, and propeller zeroed in April 2021. As of December 2022, engine @ 685 hours, airframe 6286. Long established group, good availability. Minimum 100 hours required.

For more details contact Russell - 07785 296816, rcookpa28@gmail.com



Please contact CHARLOTTE PULHAM at charlotte@aopa.co.uk +44(0)1487 830105 or +44(0)7583 140127

CLASSIFIED ADVERTISEMENTS



1978 Piper Navajo PA31-310C. ¼ equity share for sale, competitive price. Based North Weald. TTAF 4405. 100 hour check completed March 2019. Co-pilot panel. Extensive avionics including Garmin GNS430, Garmin MX20, King KLN90B second GPS, King RDR2000 weather radar, radio altimeter, Shadin fuel computer, altitude alert Contact **RON** 07771 841613 ron.priorhouse@gmail.com



CONTACT ROGER HAYES 01285 851333 or 07860 257333 or roger@skysport-uk.com



Please contact **CHARLOTTE PULHAM** at **charlotte@aopa.co.uk** +44(0)1487 830105 or

+44(0)7583 140127



This exceptionally low houred Bulldog has just been fitted with a Zero-Timed Engine, & Propeller. It is maintained to remarkably high standard and avionics comprise of a Garmin 430 with Second radio, VOR/ILS, DME and Transponder. Shares are available at an extremely attractive price of £5,000! Flight costs are £140 phr plus Monthlies of £190. You will find this Bulldog is a sheer joy to fly!

Call ROGER HAYES for more information 01825 851311 - 07860 257333 - roger@skysport-uk.com



Long established and friendly group looking for a 5th member. Airframe 5900hrs. Engine TSO 2050. IFR equipped. Garmin 430. Garmin GTX330 Transponder ADSB equipped. Digital CHT/Fuel flow monitor. Piper Autocontrol 2 autopilot. On line booking system with good availability.

Share £3000. £200/month £100/hourwet. Minimum 100 hrstotal. 10 hrscomplex. Please contact Andrew Levison 07956 282940 and rewflyboy1@aol.com

CLASSIFIED ADVERTISEMENTS



Please contact CHARLOTTE PULHAM at charlotte@aopa.co.uk +44(0)1487 830105 or +44(0)7583 140127

INSURANCE



email: info@planeweighs.com www.planeweighs.com

PROPERTY FOR SALE

ISLE OF MAN RESIDENTIAL PROJECT

Interest for aircraft owner/pilot entrepreneur

Requiring completion internally plus driveways/ landscaping this project offers a private location of c. 2 acres close to Douglas, hospital, schools and financial/legal services. Airport 25 min with daily services to London. Excellent family and recreational environment. Easily accessible private airfield nearby (no rights or influence).

South facing part new detached dwelling. Upstairs 2 cottage bedrooms, bathroom. Downstairs rooms - kitchen, breakfast area, utility, cloakroom, reception, family, dining, entrance lobbies, bedroom and bathroom, further 2 living rooms, large rectangular epoxy coated aluminium/ glass conservatory. Double garage.

£600K

reproperty6@gmail.com to arrange discussion



Please contact CHARLOTTE PULHAM at charlotte@aopa.co.uk +44(0)1487 830105 or

+44(0)7583 140127

AIRCRAFT FOR SALE AIRCRAFT FOR SHARE INSURANCE TRAINING TECHNICAL FUEL +MORE

CLASSIFIED ADVERTISEMENTS

INSURANCE



Light Aircraft & Jets Helicopters & Gyrocopters Gliders & Microlights Flying Clubs SYDNEY CHARLES AVIATION INSURANCE BROKERS +44 (0)1420 88664 info@sydneycharles.co.uk www.sydneycharles.co.uk

life cover

Without specialist advice fixed wing and rotary pilots can often face significant premium increases when applying for life insurance.

We can usually secure standard rates with no aviation exclusions. Your insurance will provide 24/7 cover including whilst flying.

- Life insurance for your family, mortgage or business.
- We help recreational, commercial, instructor and student pilots.
- Cover can be arranged over the phone

stein pilot insurand

0800 5999 101 flyingcover.co.uk

- Our insurance advisor holds a PPL
- Online quotes.

FOR ALL CLASSIFIED AD SALES ENQUIRIES

Please contact **CHARLOTTE PULHAM** at **charlotte@aopa.co.uk** +44(0)1487 830105 or +44(0)7583 140127

MENDELSSOHN THE UK & EUROPE'S AVIONICS SUPPLIER



Lightspeed ZULU.3 Headset Meet Zulu 3, the most comfortable, most durable headset Lightspeed has ever made. Build on the performance and features that have made the legendary Zulu line the choice of private and professional pilots worldwide.



Bose A20 Headset

The Bose® A20 aviation headset is our most advanced pilot headset yet. Its breakthrough innovations reduce more noise and provide even greater comfort than previous models, without compromising the clear audio you expect from Bose. Now includes auxiliary audio input and Bluetooth phone connectivity.



David Clark DC ONE-X

The DC ONE-X headset provides advanced comfort and technology features in a sleek, low-profile design. You'll have the sound performance and durability you need, with the comfort you demand.

	AvMap		
нов	33 4		500
	C		
-240			-
-200	~~~	7 -	840
-160	-0-		040
			-
+0.96			1013

Avmap Ultra EFIS Designed for light-sport, ultra light and experimental aircraft, the AvMap Ultra EFIS contains solid-state gyros, accelerometers, magnetic field sensors, air data sensors and UAV Navigation motion processor. Compact, light and easy to install, providing reliable and

advanced ADAHRS.



Dynon D3 Pocket Panel Portable Touchscreen EFIS with Synthetic Vision Featuring improved brightness, a new intuitive touchscreen interface, new synthetic vision display, and an even lower price point, the D3 is the most advanced portable safety device Dynon has ever made.

180	040 TRK0518 060	£ 2500:
170	10	- 900 ×
160 2 151 -	2 10	820
140	16	00
130	10	- 700 30
cs 154		29.94

Garmin G5 Electronic Flight Instrument for Certificated Aircraft

Boasting a bright, 3.5 inch sunlight readable liquid crystal display (LCD), the G5 is approved as a primary source for aircraft attitude or turn coordination information and secondary source for altitude, airspeed and vertical speed in a single instrument.

Visit our website to see our full and comprehensive supplies of aviation products



GARMIN. Bendix King. On AVIONICS & David Caller f.u.n.k.e. AVMAP TRIG @ Bad Elf