# Compiled by Peter R March and Paul Fiddian Compiled by Peter R March

A round-up of historic aircraft display and restoration news

# Engineering laid bare

The Shuttleworth Collection's Annual Engineering Open Days at Old Warden on 28-29 December 2018 presented a rare opportunity for close public access to selected aircraft during their essential winter maintenance. The engineering workshops were packed with a fascinating cross-section of types, along with engineers, pilots and volunteers, all willing to discuss the skills required and challenges involved in keeping the collection's historic aircraft flying.

Sopwith Pup '9917'/G-EBKY, fitted with inert, display-only WWI Le Prieur air-to-air rockets, new steel cylinder liners and new aluminium pistons to replace its Le Rhône 9C rotary engine's crack-prone steel ones, was displayed outside. On the first day, once Chief Engineer Jean-Michel Munn had supplied freshly cleaned spark plugs, 'trainee' rotary engine pilot Scott Butler started and ran the engine for three minutes before heat build up required it to be shut down.

Outside the workshop-hangar, Spitfire LF Vc AR501 had its engine cowlings and spinner removed. Just after its last flight of the season, oil had been seen dribbling from the air intake. Wear to the seals on the throttle spindle can cause this fault, which was being investigated.

The Spitfire's stablemate, Sea Hurricane 1b Z7015, was jackmounted inside the workshop to give regular undercarriage retraction and extension demonstrations. The aircraft was also extensively de-panelled, allowing close examination of its unique tubular construction and rare Merlin III engine. At the back of the workshop, sole-surviving Parnall Elf G-AAIN's extensive restoration was underway. The



Scott Butler running up the rebuilt Le Rhône rotary engine of the Le Prieur rocket-fitted Sopwith Pup



Undercarriage retraction tests were demonstrated on Sea Hurricane Z7015, mounted on jacks and stripped of its main access panels



Skilled workmanship evident on the Parnall Elf's fuselage, laid on its side to allow the cockpit structure to be viewed

quality of the workmanship on its bare fuselage was apparent, as was the care lavished on the many painted components drying on a 'washing line' that ran the workshop's length.

Keeping these historic aircraft airworthy is costly



Funding is needed to overhaul the Lysander's (and Gladiator's) **Bristol Mercury engines** 

and in 2018 the Shuttleworth Veteran Aeroplane Society (SVAS) launched its Mercury Engine Appeal Fund to ensure the Lysander and Gladiator's continued operation. The SVAS has been funding the cost of Collection aero-parts but, for several years now, with insufficient income from membership fees. The difference has been subsidised with money from reserves which are being depleted and now both the Lysander and Gladiator's Bristol Mercury engines need major overhauls. Drawing from the aero-parts budget could take the pair 'offline' for up to three display seasons. To avoid this, SVAS has set a £100,000 funding goal, and by the end of December the appeal was halfway there (www.svasweb.org/ keepthemflying).

Shuttleworth's 2019 air display season begins on Sunday 5 May. See www.shuttleworth.org/events for the full calendar.

Report and photos: Andrew March

## **Compton Abbas & North Coates New Year fly-ins**

Compton Abbas welcomed in 2019 with its first New Year's Day Fly-In for several years. Breaking the recent trend, the weather was agreeable, enabling some ninety aircraft to visit. Notable attendees included Beech D18S G-BKGL from Duxford—which gave a spritely farewell flypast on departure—and Popham-based Staggerwing NC18028. Perhaps the most unusual was former AAC Alouette AH2 2-ALOU (ex-XR379), complete with human and canine passengers.

On the following weekend, 5-6 January the popular Brass Monkey Fly-In was held at North Coates. With over 100 aircraft attending over the two days, it was a busy season-opener for the historic north-east Lincolnshire airfield. There were several interesting vintage types including Tony Brier's superbly-restored ex-Egyptian AF Kader Gomhouria G-CGEV. The Real Aeroplane Cub at Breighton, a great supporter of local events, provided Max Holste Broussard G-CIGH carrying six club members. The presence of three vintage Miles types in the hangar-Stuart Blanchard's Gemini 1A G-AKHP, recentlyimported Mercury OY-ALW/G-AHAA (on overhaul), and Mark Hales' Messenger 2A 'RG333'/G-AIEK-was a noteworthy bonus.

Reports: Howard Curtis and Nigel Hitchman



This former AAC Alouette II 2-ALOU was a welcome New Year's Day visitor to Compton Abbas



Heliopolis Gomhouria G-CGEV, a licence-built Bücker Bestmann, flew in to North Coates



Another North Coates visitor, this immaculate Broussard flew in from Breighton

#### **Meteoric mover**

AW Meteor NF11 WM167/G-LOSM made its final flight on 5 January 2019 in the hands of Dan Griffith. The 1952-built former nightfighter, TT20 target tug and air display participant left its Coventry home for Bruntingthorpe to join the Classic British Jets Collection (CBJC), a new operation at the Leicestershire site. After making several missed approaches it landed on Runway 06 and taxied in to be welcomed by a sizeable crowd.

The CBJC intends to keep the Meteor running in fast-taxiable condition, like the majority of Bruntingthorpe's classic jets. Its growing fleet also includes Gnat T1 XP540, Hunter GA11 WT806, Jet Provosts T3A XM365 and T5 XW290, Sea Vixen FAW2 XJ494 and Venom FB50 WR470. Just two Meteors are now airworthy in the UK: Martin-Baker's



Meteor NF11 WM167 landing at Bruntingthorpe after its last flight from Coventry

modified T7 ejector-seat testbeds WA638 and WL419. Elsewhere, Meteor T7 WA591, which left Coventry in March 2018 to join the World Heritage Air Museum in Michigan, has recently been

put up for sale. This follows former owner the late Marty Tibbitts' untimely death last July while flying a Venom to Oshkosh.

Report and photo: Paul Fiddian

## First flights for restored Twin Mustang prototype...

On the final day of 2018. the first North American Twin Mustang flight in over thirty years took place. XP-82 prototype 44-83887 was being fast-taxied by pilot Ray Fowler when, with the aircraft rapidly accelerating and limited runway remaining, an intended hop and touch-down became a more sustained flight around Douglas Municipal Airport, Georgia. Following this impromptu flight, formal air-testing was planned to start before the end of January 2019.

The Twin Mustang was conceived as a long-range B-29 Superfortress escort. North American achieved the required 2,400-mile range by lengthening and linking together two P-51H Mustang fuselages, each mounting a 1,860hp Allison V-1650 engine, and augmenting the fuel capacity. The pilot flew the aircraft from the left-hand cockpit and the

radar operator was on the right. First flown on 15 June 1945, the Twin Mustang was too late for WWII service. However, re-designated F-82, it did perform frontline Korean War sorties. F-82Es equipped Strategic Air Command while radar-fitted F-82Fs, Gs and Hs were later employed as allweather day/night interceptors by Air Defense Command until replaced by jet fighters, primarily the F-94 Starfire. Two-hundred and seventythree were built, making it the USAAF's last mass-produced piston fighter, although none served beyond 1953.

Used exclusively for test work, XP-82 44-83887 was flown by North American Aircraft, the USAAF and NACA (National Advisory Committee for Aeronautics). In the latter's hands, it performed high-altitude and Marquardt ramjet trials before being badly damaged in a runway accident on 25 February 1950. Prolific warbird collector Walter Soplata acquired its left-hand fuselage and other components in 1965, placing them in long-term storage at his Newbury, Ohio farm. Forty-three years later, Tom Reilly bought them and had them relocated to his hangar. Obtaining additional parts from across the US and beyond-in Mexico, for example, a rare lefthand turning Allison engine was sourced-Reilly and his team spent 207,000 hours over the next decade returning the Twin Mustang to flying condition.

The world's last airworthy Twin Mustang was the Confederate Air Force's P-82B 44-65162 which, after being active for much of the 1980s, crash-landed at Harlingen during 'Airsho 87'. Since restored, it is now on display at the National Museum of the US Air Force at Dayton, Ohio.





The Twin Mustang wasn't supposed to fly on 31 December...



... but, with its strong acceleration on the runway surprising the pilot, took off...



... to become the first of its type airborne in over thirty years

#### ... and New Zealand's latest Mosquito rebuild

Avspecs' third restored Mosquito lifted off from Auckland's Ardmore Airport on 13 January 2019. Owned by Rod Lewis, FB VI PZ474/ZK-BCV was airborne for nineteen minutes, orbiting the field then performing a low approach and go-around before landing. In the cockpit was American pilot Steve Hinton, assisted by Avspecs' owner Warren Denholm. A second more extensive flight was carried out later that day.



Coastal Command-schemed PZ474 is the world's fourth airworthy Mosquito

1945-built PZ474 was operated by Nos 80 and 132 OTUs before joining the Royal New Zealand AF. Equipping No 75 Squadron, it carried the serial NZ2384. Staying on in New Zealand as ZK-BCV, it was transferred to the United States in the mid-1950s, where it had camera equipment fitted and became N9909F.

The Mosquito had various Californian owners from 1955 to 1959 and reportedly flew CIA intelligence-gathering missions over South America. It ended up at Whiteman Air Park and became increasingly derelict in the 1960s. Next owner Jim Merizan, who retained PZ474 until 2013, had its remains transported to his premises at Yorba Linda. Eventual return-toflight efforts began at Chino but did not get far until a new owner moved it to New Zealand.

Now part of Lewis Air Legends of San Antonio, Texas - where it will be based – PZ474 takes the world's airworthy Mosquito count to four, with at least two more set to join them in coming years.

Report: Paul Fiddian



'New' engines fitted, Night-Fright's restoration is progressing well at Coventry

## Night-Fright gathers momentum

The Heritage Air Services hangar at Coventry is the scene of intense activity as Ben Cox and his engineering team continue the immense task of restoring C-47A Skytrain Night-Fright to airworthy condition in time for June's 'D-Day 75' events. This is challenging enough, but the goal is also to return the Normandy veteran to its wartime configuration and look, including its former 79th Troop Carrier Squadron USAAF markings.

The Walker family, which owns Membury Estate where the former RAF Membury's runway survives, had sought to bring back an exresident C-47 and make it a flying memorial to the site's past. DC-3 N308SF, then stored in an Arkansas yard, proved to be just such a relic. As C-47A 42-100521 Night-Fright with the 79th TCS, it had been in the thick of USAAF operations from Membury, carrying airborne troops and towing transport gliders into theatre.

'Rescued', dismantled and transported by sea and land via Florida, it arrived at Coventry in April 2017. Since then an incredible amount of structural and cosmetic recovery work has been completed. The fuselage has been paint-stripped and cleaned, corroded floor beams have been replaced and the entire cargo door surround has undergone substantial repair. The rear fuselage and fin have been restored and mated with the main body, while post-war skin modifications have

been 'undone' and an astrodome housing refitted. A huge number of components are being completely refurbished, and examples of original equipment—including radio kit—are being sourced. As these finds arrive, they are assessed and prepared for installation.

The centre section has received considerable attention, as much corrosion was found here. This area was mated again with the fuselage before Christmas 2018—a crucial milestone in the project. This in turn enabled the fully overhauled undercarriage and brakes to be reassembled and fitted. Two immaculate Pratt & Whitney Twin Wasp engines, obtained from the USA, were also installed.

Much work still lies ahead. The flying controls are receiving attention and will be re-covered. A pair of wings already at Coventry is being prepared. Pipework and cabling are in progress and furnishing the cockpit with a new instrument panel and any necessary modern equipment is also to be done. These are just some of the many tasks needing completion before the propellers are attached, the aircraft repainted and Night-Fright can be rolled out and flighttested. This remarkable project will undoubtedly become a fine tribute to the airborne troops and airmen who flew from Membury. www.night-fright.com

Report and photo: Tim Badham



Filton's WWI hangar 16M will become Aerospace Bristol's 'open-door' workshop

#### **Conservation in Action**

2019 started well for Aerospace Bristol at Filton when Biffa, a multi-million-pound fund which awards grants to community, environmental and partnership projects across the UK, announced that it has awarded £547,277 to the museum. This grant will allow Aerospace Bristol to transform the site's 103-year-old Grade II listed hangar 16M into a 'Conservation in Action' workshop.

The hangar was originally built as part of the WWI South West Aircraft Acceptance Park, then in RAF use for over fifty years until RAF Filton's handover to British Aerospace. More recently it accommodated Police and Air Ambulance helicopters. The new facility will enable visitors to see volunteers restoring former Royal Canadian AF Bolingbroke IV 9048, Freighter 31M NZ5911, various historic Bristol engines, missiles and other smaller items. Acquired by Graham Kilsby at Chino, CA for the Bristol Aero Collection, the Bolingbroke arrived at Filton in July 2006. Its restoration to static display by BAC volunteers led by David Bradley has been ongoing, most recently in the Brabazon hangar, but it has rarely been on public show.

When work preparing the conservation hangar is finished towards the end of 2019, Lloyd Burnell, Executive Director of Aerospace Bristol, says: "The building will become an exciting new part of the experience, engaging visitors with engineering marvels from our aerospace heritage, offering exciting hands-on learning opportunities and stories to inspire future generations. By bringing conservation into public view, visitors will not only learn more about the Aerospace Bristol story, but also how vital heritage skills are to saving the nation's past."

Its inclusion in CNN's up-dated '20 best aviation museums' list (see later) brought Aerospace Bristol international attention in January. CNN Travel's Global Editor, Barry Neild said: 'That brand-new aviation museum smell still mixes with the perfume of propeller grease... intoxicating visitors already in thrall to the fascinating story of one of the UK's original aircraft production sites.' aerospacebristol.org Report: Peter R March



Rarely-seen Bolingbroke rebuild will be on full public display later this year PHOTO: PETER RMARCH



Time is running out for the immense Soviet hardware line-up at Monino, the doomed Russian museum listed

## World's best aviation museums?

The travel department of US broadcaster CNN published its latest and very controversial list of the '20 best aviation museums around the world' on 28 December 2018. Featuring museums from across the US, Europe, East Asia and one from the southern Hemisphere-Australia's Royal Flying Doctor Service Museum at Alice Springs-it is a truly intercontinental list but are they really the world's best?

Unsurprisingly, US aviation museums have the lion's share. One is the Carolinas Aviation Museum in Charlotte, NC, whose exhibits include the US Airways Airbus A320 that landed on the River Hudson ten years ago this January. Also listed are: the Delta Flight Museum in Atlanta, GA; the EAA Museum at Oshkosh, WI; the Museum of Flight, Seattle, WA; National Museum of the US Air Force, Dayton, OH; Palm Springs Air Museum, CA; Pima Air & Space Museum, Tucson, AZ; Smithsonian NASM, Washington, DC; and Udvar-Hazy Center, Chantilly,

VA, and the Wings Over the Rockies Air and Space Museum, Denver, CO.

Canada's sole entry is the Aviation and Space Museum in Ottawa, while from China, Poland, Ukraine and Russia come four massive complexes: the China Aviation Museum (Beijing); Polish Aviation Museum (Krakow); Oleg Antonov State Aviation Museum (Kiev); and the Central Air Force Museum (Monino). The latter is a topical inclusion with the announcement of its closure, dispersal of smaller transportable exhibits and scrapping of the rest.

European representation comprises the Museo del Aire at Madrid-Cuatro Vientos, Hangar-7 at Salzburg, Austria, home to Red Bull's stunning fleet, and the incredible Musée de l'Air et de l'Espace du Bourget north of Paris, which celebrates its centenary this year. IWM Duxford is one of just two UK museums featured: the other is Aerospace Bristol. Why are RAF Museum Hendon and Cosford missing from this list? www.cnn.com/travel/



This Farman Goliath's fuselage is among Le Bourget's preserved treasures



From Golden Age racers to supersonic jets, a splendid Seattle MoF vista

## On the move

On Mark Marketeer (converted A-26B Invader) N500MR,

kept at Tanagra AB in Greece since the mid-1990s, has been bought by Germany's Tina Fly GmbH organisation and was awaiting relocation in mid-January. 'Remanufactured' by On Mark Engineering at Van Nuys, California in the 1950s, it was one of the 69 Invaders converted into executive transports. Recently inspected by MeierMotors and flown for the first time in some years, it is expected to be based at Bremgarten soon.

Lynx HC28 QP31 is a new addition on loan to the Newark Air Museum. It arrived from storage at Fleetlands on 18 December 2018 to become the Nottinghamshire site's third helicopter delivery of the year, following Puma HC1 XW208 and Chinook HC1 ZA717 in February. Owned by Andy Rawden, the rare Lynx was one of just three Mk 28 variants produced for the Oatar Police Force. It will be gradually restored as missing parts are tracked down and, it is hoped, thereafter be displayed in its original blue-and-white Qatari markings.

Sea King HC4 ZE427 left HMS Sultan, Gosport on 18 December to start a long journey to Norway. The former Commando Helicopter Force (CHF) machine was transported as an underslung load beneath a No 18 Squadron



Greek-based On Mark Marketeer N500MR is heading for a new home in Germany



Latest addition to Newark's helicopter collection is this ex-Qatari Lynx HC28



Sea King HC4's journey to Norway began with a Chinook lift

RAF Chinook up Southampton Water to the Marchwood Sea Mounting Centre. It was due to be ferried, then driven, to Bardufoss AB for a 14 February 2019 ceremony marking the fiftieth anniversary of the annual joint Exercise *Clockwork* series that CHF Sea Kings long-supported. Following the event, ZE427 will become a gate guardian at this Norwegian airbase.

### **Stop Press!**

BBMF Hurricane IIc PZ865's next colour scheme was announced in mid-January. Following its major service by the Spitfire Company (Biggin Hill) Ltd, set to begin in late July 2019, the Hurricane will emerge representing an all-black night-fighter operated by No 247 Sqn. The BBMF's last black-finished Hurricane was IIc LF363 which carried No 85 Sqn colours, with code VX-F, from 1983-1986. Full details next month.



The BBMF's last all-black Hurricane was LF363, seen here at IAT '83

If you have an Old Timers story contact Contributing Editor Peter R March prmavia@blueyonder.co.uk or Pilot Editor Philip Whiteman philip.whiteman@archant.co.uk