

A BRANCH OF THE LIGHT AIRCRAFT ASSOCIATION PROMOTING RECREATIONAL AVIATION IN THE SOUTHWEST www.devonstrut.co.uk

The Devon Strut is twinned with RAA Toronto Region, EAA Chapter 14 San Diego and Chapter 20 SAAA Australia

DEVON STRUT NEWS – December 2016

Chairman's Chat by David Millin

Whilst I may have bemoaned the fact that work commitments sometimes get in the way of my flying, there is another edge to this sword. Last month it was necessary for me to attend a conference and exhibition in Las Vegas. My somewhat unwilling obligation however, led me to a silvered lining away from the golden city and an opportunity to meet up with Chapter 163 of the Experimental Aircraft Association (http://www.eaa163.com/club/) at North Las Vegas Airport.



I flew into McCarran on a Saturday afternoon, picked up a rental car and checked into a hotel. At 06.30 the next morning, I was at VGT to meet EAA 163 Chapter's

chairman, Talma Howell (TA to his friends). We drove out to the hangars where we met TA's friend Steve and then rolled out the C172 N6833A for a flight to Kidwell which is a strip south of Las Vegas where we were to indulge in a satisfying American breakfast.

Two other aircraft and crew joined us, a Piper Tomahawk and a C152. Landing and taking off from the sand strip reminded me of my time flying in and around the UAE. The weather was perfect. Not a cloud in the sky and the mountain and desert scenery were quite stunning to behold. A big thank you goes to TA and all his friends for their hospitality to a stranger and for entertaining me with a post flight airport and hangar tour.







Finals for Kidwell strip

My experience led me again to consider the differences and similarities between flying in the UK and elsewhere in the world. I remember the wise words of someone I once knew: "There are many things different and many things the same." I look forward to the opportunity of reciprocating this comradeship should anyone from Chapter 163 or any of our other worldwide colleagues come to visit us in the UK.





EAA Ch 163 members (DM far right)

Finals for Las Vegas North Airport

Last month our Strut evening meetina consisted of complementary double act which proved to be very popular. A full house sat to listen to Michael Benson of GASCo on the intriguing subject of human factors and how, through a better understanding and practical application, to avoid airspace infringement. Michael's presentation was followed by Rob Hart with an enlightening session on hints and tips to getting the most of SkyDemon. Many of our members



are using this piece of powerful software and Rob handled a huge amount questions which further illustrated the flexibility of this application.

This month we will not have a meeting in the conventional sense but the Strut Christmas Dinner will serve to bring us together in the lead up to the festive season. Numbers for the dinner are growing steadily so if you would like to come and join us at the Ley Arms on Friday 16th December please let Chris Jackson know your menu requirements.

Pete White has been in contact to ask if Strut members could donate any of their out of date aviation charts to the Feet Off the Ground charity so they can be given to kids who get their flying experience at FOG events. Pete will be at the Strut Christmas meal if you'd like to pass your old charts to him that evening.

There is an increasing number of GA airfields which have live webcams that are accessible via PCs or mobile phones. Dunkeswell is included in this number, care of the Devon and Somerset's cam which looks eastward across the airfield. This can be seen at http://www.devonandsomersetmc.co.uk/webcam.htm

The Flyer Live exhibition https://www.flyer.co.uk/live is on at Telford on Friday 2nd and Saturday 3rd December. I know some of our members will be there to keep abreast of the latest news and innovations. Unfortunately, I have been struck by the other edge of the aforementioned sword. This time the cutting edge was honed by domesticity rather than commerce!

I hope you enjoy the rest of the interesting items in this Newsletter which Mike has put together. I look forward to seeing those of you who can make it to our Christmas dinner and for those of you who can't, I wish you seasons greeting. Here's to you clear winter flying. *David*.

Inspector Matters by Mike Mold

As part of the Tailored Maintenance Programme for my Jodel D117, a periodic inspection of the undercarriage legs is required, to assess any wear between the outer, fixed legs and the inner, sliding legs. This requires the weight of the aircraft to be taken off the undercarriage and can be achieved in a number of ways. Lifting the whole aircraft up by one wing tip is not recommended as one such example has been reported of it resulting in a cracked spar web. Other methods involve lifting the aircraft on a block and tackle from an overhead gantry, either by securing a webbing strop to the engine mounting frame or with a shackle from the engine top lifting point. This is an unstable arrangement but could be used to lower the fuselage onto a trestle whilst the gear legs are inspected.

My solution was to construct a hydraulic jack stand, based on a design first described by Strut member and LAA VC John Brady. A vertical strut of 100mm square timber with right angle wooden braces for stability, topped by a 2 tonne hydraulic jack (Screwfix £9.99) screwed in a couple of places, has achieved the desired effect.

The top of the jack fits on to wooden plate constructed from 2 pieces of 10mm ply which sandwich a piece of tapered hardwood, to match the curvature of the underside of the wing. The upper side of the plate is countersunk to fit over the 4 nuts on the undercarriage attachment bolts



and the underside is countersunk to take the 20mm diameter head of the jack to avoid it slipping sideways as the lifting load comes on. Two such stands could be used to raise the aircraft sufficiently to enable a trestle to be placed under the forward fuselage if the u/c legs needed to be removed completely. Fortunately, this hasn't been required in my current PtF inspection!

Fortunately, this hash t been required in my current FtF inspection!

Rotax 912UL, 912ULS, 914UL Proposed Mandatory Permit Directive http://publicapps.caa.co.uk/docs/33/PMPD1603.pdf

This relates to uncertified Rotax engines supplied in 2013 with the new cylinder heads (installed during production or replaced in-service during maintenance) which may be installed on an aircraft without concurrent modification of the aircraft instructions. In this case, the coolant temperature with a maximum engine operating limit of 120°C (valid for engines operated with water diluted glycol coolant) is displayed on a CHT indicator with a typical limit marking (red radial/range) of more than 120°C. This condition, if not corrected, will prevent the pilot identifying coolant limit exceedances, with subsequent loss of coolant as 120°C is the boiling temperature of the coolant. Actions required at the next aircraft annual inspection after the effective date of this MPD are described.

Friday the Thirteenth - Unlucky for Some

Apart from the fact that the sun was actually shining, there was nothing about the 13th May to indicate that it was going to be a rather special flying day. At work things were pretty slack. Anno Domini had at last caught up with the Avons powering the RN Hunters, and turbine blades had started to depart down the jet pipes with alarming regularity, usually



with detriment to the airframes. Today, however, it was my turn to fly one of the two serviceable aircraft fitted with a brand new

overhauled engine with all the latest turbine modification goodies.

by Martin Holloway



At 9 o'clock I was rushing down the Yeovilton runway, snug in the cockpit of the only serviceable Hunter GA11 in the world, lifting off at

150kts into the bright blue sky. For an hour I did interceptions with the other Hunter, a two seater, under control of the Fighter Control School. Doing intercepts is not one of our most exciting jobs, but it was good to be back in a Hunter again after a ten day break, and I enjoyed the flight.

As I walked back into the crew room to sign in, John Baker – the CO of the RN Historic Flight – said: "Hi Martin! How about a trip in the Sea Fury with John Beattie? He wants to practice his aerobatic display sequence for the weekend". "When?" I asked. "Right now" said John. "If you hurry you'll just catch him." I rushed, helmet in hand, and caught up with John Beattie just as he was signing the Form 700 through the window of the Historic Flight Line Office. Outside on the line sat Sea Fury T20 WG655 resplendent in silver with yellow training bands around the wings and fuselage.

It was quite a climb up into the rear cockpit but I soon settled into the seat and strapped on the parachute. John climbed into the front seat and then we were ready to start. A certain amount of muttering came over the intercom as John did the checks and primed the engine. Then with a bang and a cloud of black smoke

from the cartridge, the Centaurus rumbled into life. After spreading the wings and when the oil temperature was up, we did the run up. The whole airframe shook at high revs in a most alarming way, but apparently everything was OK. As we taxied out John gave me the take-off briefing. "Don't try to bail out below 2,000ft" he said. "If the engine fails below that height we just have to crash. I hope your life insurance premiums are paid up. If the oil pressure fails, the engine will seize very quickly." I checked. It read a reassuring 90 psi. Checks done, lined up with the all-important tailwheel lock engaged, we were ready for the off. John slowly opened the throttle about half way and we trundled forward. Up came



the tail and I could see a bit more. Full power and the acceleration was very rapid, a real punch in the back. I would guess that we got airborne at about 90kts; it all happened so quickly I did not have time to notice. At about 200 ft, wheels and flaps already up, John gave me control. Climbing at 200kts the controls felt light and sensitive, but heavier than the powered controls of the Hunter of course. The engine was really smooth, with the oil pressure steady at 90pis.

Weaving my way through the building fair weather cumulus, I climbed up to 8,000ft and found a clear area for our aeros practice. John showed me a loop and then let me have a go. I dived from 8,000ft to achieve the entry spread of 320kts and pulled up, John calling out the readings on the G-meter as I did not have one in the rear cockpit. Pulling 4½ G we soared up into the blue. Plenty of rudder work was required to keep the slip needle in the middle as the speed decreased. It is necessary to reduce the power and to pull on the stick over the top of the loop, because with all that power the Fury will flick and depart in a rather spectacular manner unless the pilot is careful. A loop takes about 2,500ft – quite a lot of sky. John showed me slow rolls and barrel rolls and I had a go, and then he ran through his sequence. I was really enjoying myself, but the Fury was burning five gallons a minute doing aerobatics, so all too soon we were heading back to Yeovilton.

As the cloud had built up over the airfield we were unable to practice John's full routine, so he did a runthrough of his low-level sequence instead, finishing with two aileron rolls that put us wide downwind. John gave me control, lowered the wheels and flaps and invited me to do an approach and overshoot. Coming round finals with speed decreasing through 120kts to the final approach speed of 100kts was no problem, but by the time I was lined up at 300ft all the runway and most of the airfield had disappeared under the nose. John, who could see where we were going, gave me a few left-a-bit right-a-bit corrections. Instructors who sat in the back of Sea Furies were very brave men – I wonder if they sat behind their students for the first deck landings? John did the final landing. He said that the aircraft would swing as the tail came down, and it did – but the brakes kept it under control. I once saw a Fury land with the tailwheel unlocked. It was most spectacular and finished up going backwards on its belly! It had been a fantastic fifty minutes – the oil pressure had never even flickered – and I hope I can go again.

Yet more excitement was to come, because I had been asked to fly Brian Woodford's Fiesler Storch that afternoon from his strip near Dorchester to Westlands' airfield at Yeovil for their Open Day. The Storch was the most amazing aircraft and had an extraordinarily short field landing performance (one was used by the Germans to snatch Mussolini off the top of a mountain in Italy during the War). It was equipped with full span leading edge slats and ailerons that drooped when full flap was selected. The undercarriage had an eighteen-inch travel to absorb landing shocks on the roughest of ground and it was possible to touch down at 30kts and stop in a few yards.



Of course there are some other aspects of the Storch that made it different from any other aircraft. For example, it was quite impossible to stall it. However, the controls were rather heavy, the 250 HP engine was very noisy and the cabin got rather hot. By 3 o'clock I was airborne from Brian's strip and cruising at a sedate 65kts towards Yeovil. It was only a ten-minute flight, so I was soon descending toward the grass airfield, which is now almost totally surrounded by the expanding town. To lower the flaps you had to wind a handle next to the throttle that operated a long bicycle chain that went up into the wing. About 35kts; a little burst of power and stick hard back at the round-out and it settled softly on its undercarriage. The hydraulic toe brakes were very powerful, so it was ready to stop right on the numbers at the threshold of runway 27. I parked between two Sea Kings and was quickly surrounded by interested Westland workers – well, it was the only airworthy Storch in England, and was painted in authentic German markings!



I had a short chat with Westlands' Chief Test Pilot and then Arthur Cole (who managed Brian's aircraft collection) arrived to drive me back to the strip. It was now 5 o'clock and a perfect evening – and there was my Stampe, already out of the hangar all fuelled and ready to go. It would have been criminal not to fly it! So, with Jane Donaldson as passenger, we were soon airborne and heading south west towards the coast over beautiful Dorset countryside. Near Bridport we turned right and flew along the rising cliffs towards Gold Cap, the highest point on the South Coast. We waved to some people standing on the

top and flew on to Lyme Regis. After circling the distinctive harbour we turned inland and began to make our way back towards the strip. We climbed up to 2,000ft and did a few gentle aerobatics as we headed toward the radio masts at Rampisham – a very distinctive landmark for finding the way back to the airfield. The approach to Brian's strip was quite interesting; you had to get it right, as there was only one landing direction. That evening it was fairly easy. There was no tailwind and the Stampe touched down and stopped in 200-yards without use of the brakes.

What a fantastic flying day! I flew four amazing aircraft, all totally different in their handling characteristics and performance, but all classic examples of the aircraft designer's art. As we drove home through the lanes in the dusk I acknowledged what a lucky man I was. Very few pilots today could have a similar opportunity themselves as I did on Friday 13th May 1988.

Martin Holloway

LAA Welcomes New CAA "Dronecode" Drone Safety Initiative

The LAA welcomes and fully supports the new <u>DroneSafe.uk</u> website launched by the CAA in partnership with NATS. It directs users to 'Dronecode', which gives advice to the millions of new users who may get a drone this Christmas, to fly safely and responsibly.

The Dronecode is a simple set of rules and guidelines, established in legislation, which outlines how to fly drones safely and within the law in the UK. It is backed by leading aviation players, drone retailers and manufacturers, and by the Department for Transport.

LAA Chief Executive Stephen Slater said: "With ever more people buying and flying drones, there has become a clear and worrying risk of conflict with all types of aircraft. Light aircraft, such as those flown by LAA members, tend to fly at lower levels and their smaller size makes them more likely to be seriously damaged by a collision with a drone being flown either close to an airfield or too high, so we fully welcome this initiative which points out the risks of their misuse."

The full CAA news release is at https://www.caa.co.uk/.../Drone-safety-targeted-by-new-initi.../ https://brone-safety-targeted-by-new-initi.../ <a href="https://brone-safety-targ

Dunkeswell Heritage Centre

The Dunkeswell Heritage Centre was officially opened on Sunday 25th September by the honorary president of the South West Airfields Heritage Trust and one of the founding trustees, Claude Caple. The ceremony was accompanied by a flypast of vintage aircraft flown by Strut members Mike & Barbara Fairclough and Reg McComish, and the attendance of military vehicles from the Devon branch of the Military Vehicle Trust.

The centre is the culmination of a project that was devised nearly 15 years ago and contains an extensive collection of over 350 photographs, reproduction uniforms, models, artifacts and films showing life on the base, including rare photographs of its construction and the sinking of U-boats, together with narratives that describe particular actions and attacks.

Located on the perimeter entry road to Dunkeswell airfield and adjacent to the war memorial, the centre is intended to be open on Thursdays to Sundays inclusive. http://www.southwestairfields.co.uk





Gas Venting Stations

by Mike Mold

A Strut scramble to Wellesbourne Mountford back in September, for lunch and a visit to the Wellesbourne museum, involved routing up the Severn Estuary and a dog-leg from the Severn Bridges to avoid the power stations marked as Restricted Areas R154 and R155 on the charts. In the subsequent conversation with David Millin, Chris Jackson and Brian Lyford we speculated about the risks of overflying these facilities and more particularly, the gas venting station at Avonmouth, just south of the "New" Severn Bridge and which has an upper altitude of 3,500ft.



A bit of internet digging on my return home revealed that a Gas Venting Stations (GVS) provides the function of maintaining the pressure within the national grid gas network. Typically, gas is not vented

unless it is unavoidable but routine running of the gas grid infrastructure dictates that sometimes it must occur.

A venting site typically only runs when high gas demand dictates (I.e. when we've all got our central heating on or when the power stations are using large quantities of fuel). When a site is no longer needed in production, this leaves a large compressor full of methane gas that must be vented because, after 24 hours, the cost of keeping it in the machine becomes uneconomical. Fans and supplementary machinery have to be run for safety and operational reasons, so it's not just about money.

To picture the nature of the valves located on a site, imagine a big valve with a ball that is cross drilled 36" diameter. When it is open, the cross drilling is aligned with the pipe. When closed the cross drilling is at 90 degrees to the pipe, meaning that for routine maintenance the gas that is trapped within the ball cavity has to be vented away. There are about 50 valves of this size on any one site.

If a whole site needs to be depressurised, a stand alone, diesel powered, pumping system is operated to push the gas out of the site into the grid. This takes 3 full 8 hour days to achieve because the nature of fluids dictates that as the differential pressure changes, so does the effort required to pump the fluid and so the operation can only get down to about 12 bar. The remaining gas then has to be vented.

There are also pipeline inspection gauge (PIG) traps and other vessels on site up of to 48" diameter and some 100 feet long. These also need to be vented for maintenance and inspection. Typically, they'd be at up to 75 times atmospheric pressure at the commencing of venting.

The pipe tip is about 3m off the ground and the gas vents at sonic velocity, i.e. in the region of 340 m/s. Hence, at 1100 ft, gas would potentially meet an overflying aircraft in one second! Locations of gas venting sites are listed at ENR 5.3.8 – 5.3.11. http://tinyurl.com/zk4yzuc They're on the current charts, including the popular digital formats, so there's no excuse for risking a bad day!

New Military/Civilian Low Level Operations Frequency

Following a suggestion at a Regional Airspace Working Group at RAF Lossiemouth in 2014, a trial has been carried out for military and civilian pilots to liaise by VHF using SafetyCom (135.475) north of 56°N when flying low level in airspace commonly used for such operations. The trial has been a success and will become a permanent procedure with immediate effect.

An announcement is expected shortly which will extend the trial to the rest of the UK with a view to initiating a trial south of 56°N using 122.275 MHz. If this is deemed to be a success between the military and civilian communities, then the whole country would use 122.275 from that point forward. Nils Jamieson, GASCo Regional Safety Officer for the north of England was present at the original meeting and helped to promote the concept.

Members' News

Russ Marshall is in the process of fettling, including rewiring, his new Silent SSDR motorglider (*right*). He recently rigged it for the first time but after the torrential storms of mid November, the runways at Watchford Farm were too soft for a first take-off attempt.

Watchford Farm - Further Update

Changes to the runways are being made at Watchford Farm, with a new 10/28 strip having been ploughed, levelled and seeded on the south side of the field. This has resulted in temporary shortenings of runways 05/23



and 13/31 at the 05 and 31 thresholds and the loss of the existing taxiway. Access to and from the southwest end of 05/23 now requires routing via the intersection with RW 13/31. Visits to Watchford are by strict PPR from Brian Anning, who will provide the necessary briefing on 07779 143439.

Changes to CAA Subscriptions, Alerts and Information Notices

The way that the CAA share alerts, updates and information will change next year. In the future, the CAA subscriptions service that pilots are registered with will only be used for safety critical updates (Safety Directives, Emergency Airworthiness Directives, UK Airworthiness Directives and Mandatory Permit Directives).

All other alerts and updates will be sent through a new system, SkyWise, which can be accessed as an app on a phone or tablet, via a website or by subscribing for updates by email. http://www.caa.co.uk/Ourwork/CAA-SkyWise

As part of this change the CAA will also be discontinuing Information Notices (INs) during 2017. Guidance or alerts currently sent out as INs will instead be shared using SkyWise which gives instant access to the latest news from the CAA.

SkyWise has been designed to make it quicker and easier to choose the subjects that pilots want to receive information about and will be tailored to their preferences.

To decide how you receive updates from the CAA you can:

- · download the app to receive updates on your phone or tablet or
- subscribe for email alerts about the subjects that you are interested in or
- check for the latest updates on the SkyWise website without needing to subscribe

Welcome to New Members

Steve Leach, Little Markham, Station Road, Yelverton, PL20 6HY steveleach10sl@hotmail.co.uk 01822 854759, 07860 197373. RV9 G-IOSL (below left) based at Bodmin.

Robin Taylor, Shepherds Meadow, Aish, South Brent, TQ10 9JQ <u>robintaylor@airteccc.co.uk</u> 01364 73336, 07798 663034. RV9A G-RTRV (below right) based at Dunkeswell.





Airworld UK Closure - Revised Programme

We have several Jodel and Robin aircraft owners in the Strut who will be interested to learn that, in order to see current sales enquiries through to completion, Pete Smoothy has revised the time table for closure of Airworld UK. The Airworld office will remain open until 20th December to allow for the completion of back orders and customer service issues that arose during November. All stock will be transferred to a new company and a new web site will be launched as a market place to sell off the remaining stock. The new company will continue to support private owners of Jodel and Robin aircraft throughout 2017.

Adverts

Jodel D112 Restoration Project for Sale. Repair work required on wing. Inspection at Watchford Farm. Price negotiable. Please contact Mike Mold on mike@mikemold.plus.com 01404-891587, 07884-361645

Piper Tri-Pacer - One tenth share for sale in well-maintained vintage Piper Tri-Pacer G-BUVA based at delightful Oaksey Park near Kemble. £2,100. Please contact Graham Clark, 01454 618218 (evenings best), or cgraham978@aol.com

If You're Serious About Your Flying ... You'll want to subscribe to GASCo's Flight Safety Magazine. Keep up with the latest developments towards better safety. Read about recent AirProxes, GA Occurrences and AAIB accident reports. Follow the well informed commentary in our articles and letters. Help us with our work at GASCo. Quarterly subscription only £16 p.a. including UK postage and a digital version, plus: Flight Safety Extra: Free email copy of this useful new monthly round up of the latest safety information is available to anyone. Go to www.gasco.org.uk or email info@gasco.org.uk or tel. 01634-200203. Editor: Nigel Everett

Jodel Isometric Cutaway Drawings by Frank Rogers

In the Yahoo Jodel Discussion Group it recently emerged that Jodel drivers would welcome AO-size copies of Frank Rogers' isometric cutaway drawings to frame and put on the workshop wall. These are normally sold with the English language construction plans. I am about to have some printed at 'Mates Rates' for Jodel lovers. The following images are available AO size at £10 each + Post and Packing. D9, D11, D150, D1050, D1050M, D18 and DR250. I can do smaller sizes on request. An e-mail will suffice to Graham Clark, cgraham978@aol.com



G-BBKZ - Cessna 172M – **Hangared at Exeter.** Non-Equity share available. Engine and propeller (approx. 400hrs) – Excellent performer. 2 Com/Nav, ADF, Transponder A/C, Life jackets, lightweight life raft, McMurdo GPS locator. Monthly standing charge: £105.00 per month £72.00 per hour wet. Commitment deposit: £495.00 (fully refundable with 6 months' notice). For further info contact: john@tiptonuk.eu – 07591-588226.





GNS 2000 GPS Bluetooth Receiver for sale *(left)*. Little used from new. £65.00 including postage. Please call or text Chris Howell on 07970-251386 or email howell@ashworth5.orangehome.co.uk

TECNAM ECHO P92 AIRCRAFT G-CBAX (*right*), built 2001, JAB2200 solid lifter engine, Pro Pilot autopilot 3 axis linked to Garmin colour GPS296, electric gyro turn indicator, radio, transponder, compass, new prop, EEI fuel flow indicator, permit valid Apr 2017, always hangared at Dunkeswell. Price negotiable Contact Leo Collier 01404-831195.



Strut Evening Meetings

Second Thursday of the month, October - April, at <u>The Ley Arms, Kenn</u>, Exeter starting at 7.30 pm (If you'd like to join us for an evening meal before the meeting, please book a table on 01392 832 341)

December 16th Strut Christmas Meal at the Ley Arms (this is a Friday meeting)

January 12th Steve Ladd – Flying the A10 Warthog

February 9th Strut AGM followed by a talk by Steve Slater, LAA CEO March 9th Keith Vinning, PilotAware - Collision Awareness System April 13th Colin Hague - Test flying the Westlands EH101 Merlin

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