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## DEVON STRUT NEWS, DECEMBER 2006.

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### CO-ORDINATOR'S COMMENTS

by Christopher Howell

Liability insurance has reared its ugly head during this month of November. The South Hams Flying Club based at Halwell has to make the difficult decision whether to close the airfield to all visiting aircraft and cancel their 2007 fly-in. Why? Because, like at many of our local strips, a visit for a cup of tea and a natter have all been at the pilots own risk. Now, if some clever insurance company spots an opening for shifting the blame on to the landowner, hey-ho, where's your policy Mr Farmer!! A quick call to PFA HQ elicited "Oh, I am surprised that strip owners have not got liability insurance, foolish beings!" So there lies a story. When I called around to our entire 14 fly-in venues this year I met with very mixed responses. Some strip owners are operating on restricted incomes and the added burden of several hundred pounds going to the very slight opening that some clever clogs may find will not warrant the added expense. Some strip owners do not have that many visitors but enjoy holding a fly-in once a year. Other owners do not welcome any visitors except for those at their once a year social chin-wag and fly-in. Now we are tasked with finding a satisfactory solution, otherwise flying to friends' strips on a sunny afternoon will be terminated!

I have contacted the PFA and asked for Primary Liability cover for fly-ins. Reply: Too expensive! Great! Thanks for your help. I try another tack; Yes, Hall and Clarke will provide cover @ £100 for each event. That, times fourteen is cost prohibitive, so we provide some data with the hope we can claw the cost down. I have also contacted some other companies to ask for help. The committee of Grand Elders is working on the problem and Jim Gale is also working with the Flying Farmers Association to see what ideas they have. Pete White is also in touch with the Vintage Aircraft Club so we will attempt to make this a national campaign and rope in all the help possible.

November has brought us several dry sunny days and the membership has taken to the air to enjoy these balmy autumn conditions. Gordon Morris has now sold both his ARV and Falco project and when I spoke to him some time back he seemed destined to pack up flying altogether. So talking to him again at a recent Strut meeting Gordon was brimming with enthusiasm and pleased to have taken ownership of an airworthy Sipa in part exchange for his Falco project. It is always refreshing to talk to young and old and hear their different stories, Luke Roberts is enjoying flying his delightful Jodel D9 from Halwell and Keith Wingate has taken delivery of his new mount, an Emeraude, which he has also based at Halwell. The new hangar Keith has constructed is very neat and shows the advantage of owning a low wing aircraft. Tony Bailey has purchased Joe Thomas's Texan Taildragger. Joe has owned this aircraft for over twenty years but feels its time to move on and is looking at building an Escapade. He claims his creaky frame necessitates a low maintenance, uncomplicated aircraft but for fun he retains ownership of the Turbulent he recently re-built from its accident at Taw Mill. The Tiger Moth owned by Zac Rockey under refurbishment with Mike King is moving on apace. The fuselage has been painted in much researched 1941 camouflaged colours (see *photo below in Members' News - Ed*) and is sitting on its own wheels. Zac plans to have the aircraft flying in early spring 2007.

After many dodgy reports Plymouth's hangar is nearly full. John Kempton has stated that repairs to the hangar have been completed and there are almost more tail draggers in residence than tricycles. Terry Linge, Airfield Director, would consider providing a grass-landing strip if enough votes were received. Steve Leach and John Kempton will be staging a Vintage Aircraft fly in at Plymouth during May 2007 and insurance is already in place!!!

Bodmin continues at a fast lick with the new maintenance hangar refurbishment work being carried out by Airfield Manager Mark Taylor himself. The beauty of a members' club is that they can draught in support staff from the membership. Hence, Tug Wilson has been flying a desk at Bodmin, though at the moment it has not been confirmed who checked him out and if the necessary insurance is in place. Strut member Dave Storey is due to move in to Bodmin in the New Year. Dave brings many years experience and is also a PFA Inspector.

Christmas will be upon us soon, the shortest day, and then the dawning of the new flying season. I personally find it a great time, with all the eager anticipation of the New Year.

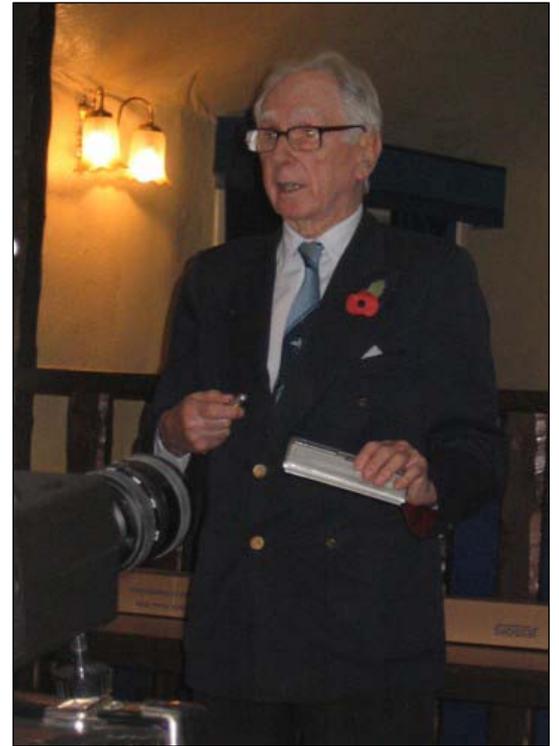
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## Capt. Eric "Winkle Brown, Strut Meeting 9th November

by John Havers

We were so fortunate that Pete White was able to arrange for Captain Eric 'Winkle' Brown, CBE, DSC, AFC, RN to entertain the Strut at our November Meeting. Having been privileged myself, to know Eric for some 30 years or so and having heard him speak on a number of previous occasions I knew we were in for an interesting evening, and so it was. Our largest ever audience (of some 70 members and guests) heard Eric describe, in his very modest way, how he had flown 487 aircraft types; more than any other pilot in the world; a feat which is recorded in the Guinness Book of Records.

Illustrating the talk with slides from his collection, Eric described the problems he, as C.O. of the RAE Aerodynamics Flight at Farnborough, encountered while testing various aircraft. We learned of the problems inherent with the catapult launching of Hurricanes from merchant ships on their one-way trip to engage enemy aircraft far out in the Atlantic. The pilot had to bail out and the Hurricane then crashed into the sea, as there was no way they could be recovered by the ship. We learned of his test flying many types including Spitfires, (his favourite, one of which he crashed in front of Winston Churchill) and Mosquitoes, through to the early jets; the Gloster (Whittle) prototype, Vampires and Meteors and the development of carrier fighter variants (e.g. Seafires and Sea Hornets).



During the later years of WW2 he flew captured German aircraft, such as the FW190, to evaluate their capabilities in comparison with the most advanced Allied fighters of the period. During the immediate post-war months he tested German machines both in Germany and after they had been ferried back to Farnborough and we were enthralled by his description of flying the dangerous rocket-powered Me163, and the jet Me262 fighter and Arado 234 bomber. Having participated in a university exchange course in Germany in 1939, Eric had become fluent in German so was the most appropriate Allied officer to interview / interrogate the leading German aviators and designers, including Willie Messerschmitt, Kurt Tank and Hanna Reitsch.

Finally, we learnt of Eric's transonic experiences flying one of the DH108 research aircraft following the loss of the second prototype TG306 on 27 September 1946, in which DH Chief Test Pilot Geoffrey de Havilland had died.

Eric's explanations of measuring tactical Mach numbers, compressibility testing, the development of swept wings and the differences in simplicity and reliability that dictated the success of early centripetal jet engines designed by Whittle compared with the short service lives of the more complex axial flow engines of the German fighters, were clear and concise, making the evening all the more enjoyable for the non-technically gifted guests in the audience! A truly memorable evening which most of us would have wished had been twice as long!

The latest, updated edition of Eric's book "Wings On My Sleeve" can be obtained from The Aviation Book Shop, 31/33 Vale Road, Tunbridge Wells, Kent TN1 1BS, price £20.00 (signed or unsigned), post free.

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*Capt. Eric 'Winkle' Brown's highly entertaining and informative talk at last month's meeting prompted Maurice Wickstead to unearth an original magazine feature article that he had written for Air Pictorial and which appeared in the October 1997 issue, commemorating the 50<sup>th</sup> anniversary of supersonic flight. With acknowledgement to AP, this is reproduced below in an abridged form.*

## **Beating the Barrier**

*Photos from Air Pictorial and Adwest GRP*

**by Maurice Wickstead**

The obstacles posed by the so-called 'sound barrier' had lain in wait for engineers and aerodynamicists from the moment that man's dream of powered flight was first realised. Several decades later, as aircraft speeds increased towards 500 mph, the challenge of supersonic flight was to tax the ingenuity of aircraft designers and skill of test pilots alike.

During the latter stages of WWII, with the advent of high-performance fighters, such as the P-38 Lightning, P-47 Thunderbolt and Hawker Typhoon, an unexpected phenomenon manifested itself in a number of accidents resulting from structural failure and loss of control during high-speed dives. Even though the aircraft itself remained below the speed of sound, compressibility effects were encountered when air travelling over the upper wing approached supersonic speed or Mach 1.0 (approx 735.5 mph at 10,000 feet ISA). Accompanied by severe buffeting, the resultant shock waves altered the airflow over tail surfaces, rendering elevators largely ineffective and often producing a tuck-under dive from which it was invariably impossible to recover. Dive flaps went some way to negate the effects, but with vast improvements in powerplants and viable jet engines impending, it was merely a question of time before the problem of compressibility would similarly affect level flight.

Existing wind-tunnel technology proved largely unsuccessful in duplicating the effects, so it was left to a handful of courageous young test pilots at RAE Farnborough, Eric Brown among them, to explore this little understood realm of flight under actual conditions. Investigations began in 1942, but it was not until two years and several serious accidents later, that these yielded any worthwhile results. On April 27, 1944, Sq-Ldr 'Tony' Martindale reached a staggering Mach 0.92 (around 625 mph) in a cleaned-up Spitfire PR.Mk.XI, stripping the Merlin's gearbox and losing its propeller in the process, but somehow managing to land in one piece! However, these highly dangerous tests, together with research elsewhere, only served to confirm that propeller-driven aircraft could never achieve sustained supersonic flight.

Although Frank Whittle had formulated his revolutionary ideas on propulsion as early as 1928 and bench tested the world's first turbojet aircraft engine in 1937, lack of official interest and funding allowed German engineers to leap ahead. Owing much to the developmental engine work of Dr Hans von Ohain and taken-up enthusiastically by Ernst Heinkel, the experimental He178, piloted by Flugkapitan Erich Warsitz, made the very first jet-powered flight on August 27, 1939. Whittle's efforts

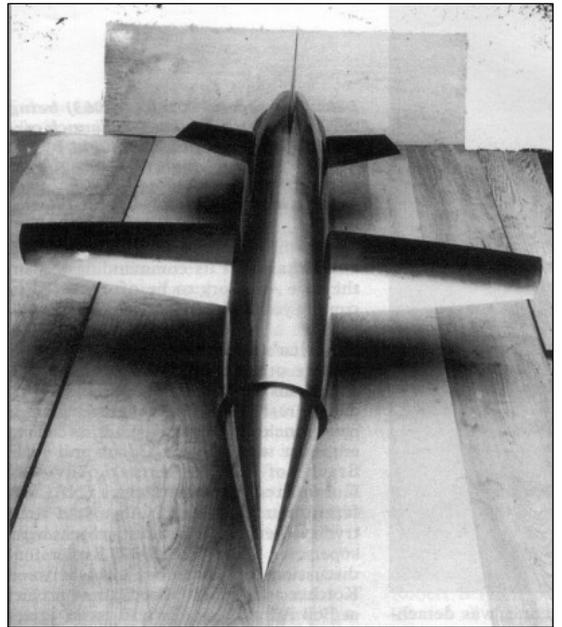


*The Gloster (Whittle) E28/39*

bore fruit almost two years later, when the Gloster E28/39 took to the air on May 15, 1941. Development continued throughout the war in Germany, resulting in advanced designs such as the Messerschmitt Me.262, Arado 234 Blitz jet bomber and rocket-propelled Me.163 Komet, which pushed the boundaries still further. Indeed, a report published in September 1945 indicated that before Germany's collapse, no less than 19 jet and six rocket-propelled types were under development. Had the war not ended, they would have undoubtedly been the first nation to officially fly faster than sound.

Through secret intelligence, Britain learned in 1943 of its adversary's technological lead in jet propulsion. Responding quickly, the Ministry of Aircraft Production drew up the experimental specification E24/43 calling for an aircraft capable of taking-off under its own power and reaching 1,000 mph at 36,000 feet! On October 8, 1943, authorisation for three aircraft was awarded to a perhaps unlikely candidate - Miles Aircraft Limited of Reading. Best remembered for its prolific line of single-engined civilian sports machines, Miles had nevertheless already produced some 5,000 military trainers and acquired a reputation for innovation, with experimental designs such as the tandem-wing M.39 Libellula.

Based around Whittle's after-burning W.2/700 engine, work on the M.52 project, under Technical Director F.G.Miles and Chief Aerodynamicist Dennis Bancroft, went quickly ahead. Theorizing that a 0.50-calibre bullet exceeded the speed of sound without loss of stability, Miles conceived a mid-wing projectile-shaped design with a one-piece slab tail-plane and neat tricycle undercarriage - in appearance not unlike the post-war French Leduc 010 air-launched ramjet. Not least among its radical features was the variable-incidence horizontal stabiliser, retaining control effectiveness through all flight regimes, eventually to become the standard for supersonic aircraft. Nor was pilot safety compromised - the cockpit, located within a conical nosecone, was detachable by explosive bolts in event of emergency.



*Steel model of the Miles M52*

Beginning on August 11, 1944, the bi-convex, 'razor' wing was tested in wooden replica form on the Miles 'Gillette' Falcon test-bed, as was the 'all-moving' tailplane. By early 1946 a mock-up was complete, with work on the first prototype well in-hand. Actual flight tests were scheduled to commence at Boscombe Down in January 1947 and would have probably achieved the desired result, as later proved in October 1948 when a Vickers developed radio-controlled test model attained Mach 1.38. However, it was not to be. Heeding the advice of MAP Director-General of Scientific Research, (Sir) Ben Lockspeiser, the Government abruptly cancelled the project in February 1946. The smokescreen of stringent post-war economies (in fact, the M.52 project was very cost-effective) and pilot safety masked the real reason. Lockspeiser had been amongst 'experts' visiting the top-secret Volkenrode research establishment in Germany. From material discovered there, the conclusion was reached that supersonic flight could only be achieved safely with a swept-back wing and that it would be many years before this could be realised. These short-sighted opinions prevailed and Britain lost its commanding lead in the race - a story oft repeated in coming years!

On the other side of the Atlantic, the Americans were beginning to take a belated interest. Several far-sighted proponents, chief amongst them Ezra Kotcher, a civilian engineer with the Air Corps and John Stack of the National Advisory Committee for Aeronautics (NACA), forerunner of today's NASA, had been trying to engender interest since 1939. Exploratory discussions in November 1944 between Kotcher and Robert Woods, design chief at Bell Aircraft, rapidly lead to an agreement between the Air Corps, NACA and Bell for the design and construction of three experimental XS-1 transonic aircraft. With a reputation for getting things done (and on budget!), Bell was formally signed as the contractor on March 16, 1945, having already to its credit



America's first turbojet fighter, the P-59 Aircomet, flown on October 1, 1942 and based around transferred Whittle engine technology developed by General Electric.

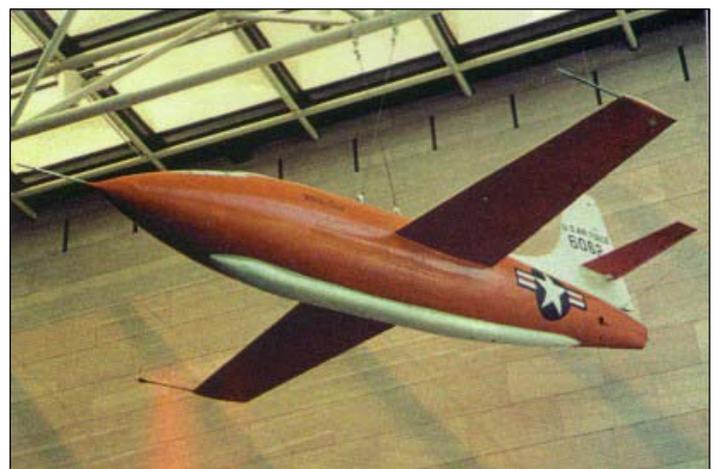
Around this time, though several promising jet fighter projects were emerging, America was encountering setbacks with its engine technology, resulting in the decision to employ rocket propulsion, virtually unknown for manned aircraft outside Germany. Reaction Motors, a small New York firm, which had already produced a rocket motor for the highly-secret subsonic Northrop Flying Wing, was selected and came up with a four thrust-chamber unit, weighing just 345lb and developing up to 6,000 pounds of thrust from LOX/ethyl-alcohol propellant. The original concept provided for take-off under own power, but additional weight incurred during development of the fuel system, ultimately dictated the XS-1 series being air-launched from a B-29 mother ship. The craft that rolled out of Bell's Wheatfield, New York plant on December 27, 1945 was of simple, yet immensely strong (stressed + /- 18 g), aluminium alloy, bullet-shaped, straight wing design with integral glazed cockpit, preserving the uniformity of shape. Unsurprisingly, the result owed much to Miles' groundbreaking work as shortly after the M.52's demise, under a veil of secrecy, the Ministry of Supply ordered all data to be handed over not only to Vickers-Armstrongs, but also to the Bell Company!

Bell's test pilot, Jack Woolams, made an initial gliding flight near Pinecastle AFB, Florida on January 19, 1946, in the first example, USAAF 46-062, to be followed on December 9 by Chalmers "Slick" Goodlin at Mach 0.75 in the No.2 machine, (46-063) under power. Reverting to '062', fresh from the factory with modified wings and tailplane, Chalmers began a new series of tests from April 10, 1947, which attained Mach 0.8. Contractual difficulties caused the Air Force to assume responsibility for the XS-1 flight test programme, appointing former WWII Mustang fighter ace and Wright Field test pilot, Capt. Charles E 'Chuck' Yeager to take over Goodlin's role. Yeager, an experienced aviator, with an engineering background, excellent co-ordination, determination and an irrepressible spirit of adventure, was the ideal choice. From Flight 38 on August 6, 1947, Yeager made the first of three gliding sorties launched from 25,000 feet to gain handling experience, reporting, according to his biography, that it was the "best damn airplane" he ever flew, if somewhat hairy! Not least in the 'dead stick' landing, the gear went out at around 250 mph and touchdown was at 190!



*Chuck Yeager*

Powered flights began on August 29 from Muroc Dry Lake, California, later renamed Edwards AFB in honour of Capt Glenn Edwards, killed during testing of the Flying Wing. Ignoring the direct orders of the programme's commander Col. Albert Boyd, himself a record holder at 623.74 mph in a Lockheed P-80R Shooting Star, Yeager pushed the speed up to Mach 0.85 and received a severe reprimand for his audacity. On the seventh flight early in October, flying at Mach 0.94 at 40,000 feet, pitch control was lost, which did not augur well for further tests. The XS-1 still retained a conventional horizontal stabiliser, albeit high set to avoid turbulence coming off the wings, but still not sufficiently immune to elevator ineffectiveness at high Mach numbers. Re-inventing Miles' earlier work, Air Force test engineer Jack Ridley proposed pivoting the horizontal stabilizer (+5/-10 degrees) to act as an auxiliary elevator. No one was sure if it would work, but both he and Miles were vindicated on the very next flight when Yeager safely reached Mach 0.96. The fun was not over though - thick frost formed inside the windscreen and Yeager had to be



*Bell XS-1 46-062 in Washington's National Air & Space Museum*

talked down literally all the way by the chase plane. This problem was overcome by applying a coating of Drene shampoo to the windshield!

Around eight in the morning on Tuesday, October 14, 1947, Yeager climbed aboard the mother ship for his ninth powered flight. On the previous Sunday evening, while out riding with his wife Glennis, he missed a gate in the darkness, was thrown from his horse and sustained two broken ribs. Undaunted, he opted to continue with the test programme, scheduled to reach Mach 0.97. Launched at 20,000 feet, Yeager recovered the XS-1 from its incipient stall and fired all four chambers; trimming the horizontal stabilizer a couple of degrees as buffeting began through the Mach 0.88 climb. In smooth flight at 36,000 feet, two chambers were cut, but the craft continued up to 42,000 feet at Mach 0.92. With thirty percent fuel remaining, Yeager fired up No.3 again to reach Mach 0.96, noticing that the faster he flew, the smoother the ride. Suddenly, the Machmeter began to fluctuate and went right off the scale - Yeager figured he had reached about Mach 1.05 (later analysed from telemetry as Mach 1.07). If confirmation were needed, it came from the ground - where what appeared to be a distant rumble of thunder was heard - in fact, the XS-1's sonic boom. It was a moment of both triumph and anti-climax - after all the build up, Yeager had only a dancing instrument to hint at his achievement - later likening it to a 'poke through jelly'!

The hitherto imagined barrier had been broken - an event perhaps that went largely unnoticed by the world's Press, leaving it to the respected *Aviation Week* to break the story, but not without repercussions. With typical military xenophobia, the Air Force called in the FBI to find out who had leaked their 'big secret', but the investigation was dropped after the magazine's editor, Robert B Holz, pointed out that he had learned all the technical details at an Air Force Press briefing several months earlier. But it was only the beginning; the original XS-1 programme, later re-designated X-1, completed a further 157 flights, reaching its highest speed at Mach 1.45 on March 26, 1948, by which time production F-86 Sabres were regularly making sonic bangs. The subsequent X-1A and X-2 test series pushed the limits up to an unprecedented Mach 3.2 by late 1956. As for Yeager, after a celebrated career as test pilot, F-86 squadron commander and head of the Air Force's Aerospace Research Pilots School, with 350 types and 10,000 hours in his logbook, he retired in 1975.

Britain had to wait almost another year before one of its pilots exceeded speed of sound, and then in unusual circumstances. On September 6, 1948, John Derry took off from Hatfield in the third de Havilland DH.108 (VW120) to carry out a series of high-speed manoeuvres. Diving at 30 degrees from 45,000 feet, the nose became very heavy approaching Mach 0.96, but instead of pulling up, Derry steepened the dive, plummeting vertically down from 30,000 feet at an indicated Mach 1.04, before regaining control at 25,500 feet. Ironically, the DH.108 was the world's first swept-wing jet aircraft, built to investigate swept-wing behaviour and provide data for the projected Comet airliner. Whilst furnishing much valuable research, all three aircraft were to eventually crash, killing their pilots. Tragically, Derry was also to lose his life during the 1952 Farnborough Air Display, when his DH.110 broke up in mid-air following a supersonic dive, killing his observer and 28 spectators as the wreckage ploughed into the crowd.



*As so often has been the case, Britain's groundbreaking technology became a casualty of the 'Special Relationship' and its unsung heroes, not least Eric Brown and his valiant colleagues, hardly merited a mention. But we at least have been privileged to hear at first-hand just how these remarkable achievements came to pass.*

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**Build-a-Plane Two (BaP2) Youth Project.** - Volunteer inspectors, builders and helpers required.

The Strut, in conjunction with sponsor Tim Gilmour-White, is currently evaluating various suitable aeroplane kits with the intention of building the main components of an aircraft at four locations in Devon. It is anticipated that a wing will be built in south west Devon and the other in the south east of the county. The empennage is going to North Devon and the fuselage will be built at Tim's workshop in Thorverton, where the mating assembly will also take place. Test flying in all likelihood will take place at Dunkeswell.

Tim is going to "SPLASH" at the NEC during the weekend of 2nd/3rd Dec and it is anticipated that the final choice of aircraft will be announced shortly after. With a typical lead time of 8 weeks it is envisaged that delivery of the chosen kit will be in late February, 2007. The various components will then be distributed and it is hoped that the 'plane will start to come together by the end of the year, to be tested during early 2008. It will then be ready for taking the youngsters involved in the build on experience flights during 2008, by which time it should also be available for UK tours of duty and exhibitions, representing part of the PFA's Educational programme.

The Strut is therefore looking for inspectors, builders and helpers, in those areas of the county mentioned above, who would be prepared to give one evening a week (and maybe a little bit more at various times) to help this worthy cause. If you feel like volunteering, please get in touch with Jim Gale, (who lives in the next village to Tim) at the address, email or phone number as shown on the contacts page.

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## **Government response to Foreign Registered Aircraft Based Permanently in the UK**

The Dept of Transport has written to pilots, to thank them for responding to the Consultation on the application of UK regulatory requirements to foreign registered aircraft based permanently in the UK.

The consultation paper in August last year sought views on a proposal to take steps to ensure that all privately operated aircraft permanently based in the UK were operated under requirements equivalent to those contained in the appropriate harmonised European standards. A total of 299 responses were received in all from many different sources including private citizens, Members of Parliament and the House of Lords, industry, commerce, aviation associations and foreign aviation authorities.

Responses demonstrated widespread opposition to the proposal to amend the Air Navigation Order to prevent foreign registered aircraft from being based in the UK by limiting the time such aircraft may remain in the country to perhaps 90 days in any one year. However, the Government has also taken note of the many constructive responses suggesting that Government action should instead focus on the reasons why people choose to place their aircraft on the US register and on disincentives to UK registration. Respondents emphasised in particular the perceived difficulty for holders of private pilots' licences of achieving an Instrument Rating in the UK under the prevailing JAR-FCL Instrument Rating requirements; the costs and commercial disadvantages of placing aircraft on the UK register; the relatively fewer aircraft and parts that are certified by the CAA as compared to the FAA or other Authorities; and the widespread recognition and acceptance of FAA licences and certificates worldwide. The feeling among these correspondents was that rather than Government introducing a limit on the activities of foreign registered aircraft, incentives should be introduced for owners to register their aircraft on the UK Register. Many respondents suggested they would move their aircraft to the UK register should CAA certification of aircraft and parts become more extensive and the process of obtaining an Instrument Rating be made more readily achievable.

The Government remains convinced that widespread flagging out of aircraft based in the UK is undesirable and out of line with the internationally accepted system of regulation of civil aviation embodied in the Chicago Convention. The objective remains that aircraft based in the UK should be required to meet safety standards acceptable within Europe and be subject to verification by the UK and other European aviation authorities that they meet those standards. Taking into account the responses to the consultation, however, and while the DT will continue to monitor the operation of foreign registered aircraft based here, the conclusion was that it would not be appropriate at this time to introduce a requirement to place such aircraft on the UK register or impose a time-limit on their activities. This view was reached in part because it appears to the Government that European proposals published in November 2005 to extend the scope of common European aviation safety rules may provide a better means of achieving the CAA objective in a proportionate way. Stakeholders have been consulted generally on the proposal "to amend Regulation (EC) No 1592/2002 on common rules in the field of civil aviation and establishing a European Aviation Safety Agency". This proposal specifically amends the scope of the EASA Regulation to include a category of aircraft registered in a third country and used into, within or out of the Community by an operator established or residing in the Community. Detailed implementing rules will be needed to give force to this amendment and EASA is expected to consult stakeholders on the details of their proposals at the appropriate time.

Regarding the widespread desire for a simplified instrument rating, the Government recalls that the current rating was established by the JAA acting on the advice of experts from the national aviation authorities of the JAA member States. Responsibility for future changes will rest with EASA. The Government will support efforts by EASA to address this issue, possibly through the provision of a leisure pilots licence similar to the UK NPPL but recognised across Europe. Respondents should note, however, that EASA will need to establish instrument rating requirements that are appropriate for European operations and weather conditions and that previous work by experts indicates that requirements based on the FAA instrument rating would not be acceptable for an instrument rating which gives access to class A airspace.

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## Flying a Two Wheeled Pawnee

by Richard Walker

It was a pleasant summer day and I was glider towing at a famous site in Yorkshire. The aircraft had recently had the tyres changed and on reassembly the wheel bearings seemed fine. A few days after this the brake disc was noticed to be rubbing against the calliper and it was taken to the maintenance organisation who did not think anything of it. Mistake No 1!

As I taxied out to take off for about the fourth tow I heard a grinding noise and I thought "I must look into that when I get back" Mistake No 2!

The take off seemed normal until the last bounce when there was a distinct pull to the left and I thought, "Oh dear! Something is wrong". When glider towing, the tug gains speed slowly so that you tend to bounce two or three times on the take off before finally getting airborne. The aircraft was handling totally normally so I knew the problem was something to do with the undercarriage but whatever it was, I could not see as it was hidden below the wing in this aircraft. Anyway, there was nothing to do but complete the tow and then decide on the course of action. As I released the glider and turned back to the site I saw the Motor Falke taking off and climbing up towards me which confirmed to me that there was some sort of problem. He closed in on me and after various hand signals, none of which I understood, he turned back towards the site. As everything aloft was tranquil I was not in any great hurry to return to what could possibly be a very firm terra firma.

We had been using the strip taking off to the west in a light westerly wind but I was not too keen on landing in this direction as it was fairly short. There was also rough ground to the left of the strip and I had visions of the aircraft careering off to the left, out of control. The Falke returned to the site and landed to the north and I thought, "Yes, that is the right direction as there is good ground to the left if I stop in time and don't reach the cliff edge". I waited until the Falke was clear and then make a wide approach. At about 200 feet I got all the flap down and brought the speed back as low as I dared, lining up for the strip. As I landed I gave her plenty of right wing down and left rudder to keep the left undercarriage off for as long as possible. When the left under carriage did touched she made a reasonable gentle ground loop to the left through about 270 degrees and stopped in about 5 yards.

I quickly switched off everything and jumped out, to much relief and acclaim from the many onlookers, and found that I had no left wheel, it having detached from the axle during take off.

Mistake No 1. was that we did not investigate further when the disc was rubbing the calliper. This was an indication that the wheel bearing was breaking down.

Mistake No 2. was that I did not stop before take-off to investigate the grinding noise. If something is not absolutely right, do not fly. The other thing to bear in mind is that if the aircraft is handling reasonable well when you identify a problem whilst airborne, (subject to the particular circumstances) then do not be in a hurry to land. Think about what you are going to do and check the aircraft handling at approach speed so hopefully there will not be any nasty surprises close to the ground. Fortunately I managed a good landing



and all that was required was a new under carriage leg and new wheel bearings. This is about the most exciting thing that has happened in my flying career and I hope to keep it that way!!

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## Members' News

Ian Law has bought Terry Wilson's share in Aeronca G-IVOR and Pete White checked him out on 7<sup>th</sup> Nov. at Bodmin.

Tony Bailey has bought Texan Taildragger N7374A from Joe Thomas, who is now contemplating building an Escapade.

Zac Rockey's Tiger Moth refurbishment is progressing well in the hands of Mike King at Branscombe.



## Bodmin or Bust!

It was a murky, drizzly November Sunday when four of the Watchford Wonderers headed down to Bodmin for the ADKBF (All Day Killer Breakfast). After 1 hour 20 minutes battling a 30kt headwind, we arrived at *well* past noon to a relatively, and not unsurprisingly, deserted Cornwall FC, save for a welcome from resident clubbers Derek Boyce and Martin Pengelly. Messrs Robson, Wells, Mold and Marshall must have spoken the magic words because Michelle conjured up the most acceptable ham, eggs and chips for us, gratefully washed down by what Mike Wells described as "some funny smelling stuff" – his first introduction to Earl Grey! The late lunch turned into a controlled scramble as someone pointed out the need to refuel and re-launch into the tailwind before the fading light caught us out. Around Okehampton we passed the CFC's solo cross-country student heading homeward from Exeter, easily picked out through the gloom by the red rotating beacon on the C152. The headlights were coming on as we crossed the M5 and within minutes of putting the aircraft away at Watchford it was another dark, dank autumn evening; the end of an opportunistic but nevertheless satisfying flying day.

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## Welcome to New Members

Steve Baker of East Budleigh. Robin DR3000 G-BZOL

Keith Munro from Totnes. Keith flies Piper J3 G-BVFN (and AT-6C N49685 based in Phoenix, Arizona).

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## XC Weather Tutorial

Following on from his recently posted web demo on accessing Notams Narrow Route Briefings, Dave Hall, of the Bristol & Youth Education Struts, has produced a new tutorial on the use of the XC Weather site. XC is an interactive UK & European map site giving Metar information and is a popular and valuable pre-flight tool. Dave's tutorial <http://www.vwtype3and4club.org.uk/flyers/AIS/xcweather.htm> demonstrates the facilities available in an easy to use, step-wise progression. It will be linked on our Weather webpage and

with the Narrow Route Briefing tutorial, can also be accessed via the Youth & Education Strut's website under Training / Web Tutorials at <http://www.flyers.org.uk> .

**The Devon & Somerset Microlight Club**, based at Dunkeswell, has an excellent website recently crafted by Phil Parmiter (also of Chesil Radio Modellers Club fame). The DSML club and the Strut have several joint members and posting links to our respective websites represents another aspect of sharing grass-roots common interests. Phil is to be congratulated in constructing an informative and attractive website. <http://www.devonandsomersetmc.co.uk>

### Temporary Reserved Areas (TRAs)

As a result of European airspace classification changes, the current restrictions of flying, known as Temporary Restricted Areas (TRAs), that are put in place to protect events such as air displays and major incidents will have a new name from 18 January 2007. On the 15 March 2007, the base of Class C airspace in the UK will be lowered to FL195 (19,500ft). At the same time, to bring the UK in line with Eurocontrol Flexible Use of Airspace definitions, Temporary Reserved Areas (TRAs) will be established to cover specific parts of airspace between FL195 and FL245 to accommodate the various VFR and military operational requirements of UK airspace users.

To avoid confusion between these new Temporary Reserved Areas and the existing Temporary Restricted Areas, the latter will be referred to as Restricted Areas (Temporary) RA(T)s. (*Stay with me – here's the point:*) From 18 January 2007 pilots looking to check on restricted areas for events such as Red Arrows displays should look at **RA(T)** information.

Further information on this change can be found in Aeronautical Information Circular 123/2006 (Yellow 225) that will be issued on 7 December 2006. More information on the lowering of Class C airspace will be published in January 2007

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### Trevor's Photo Quiz

GDay Mike,

I am down in Perth, ostensibly to see the Red Bull Air Race but having a bit of a holiday as well. Yesterday I visited Serpentine, the local homebuilders' and classic flyers' haven about an hour south of here. I had a great day including some flying in a friend's Tiger Moth. While I was there I spotted this unusual aircraft and I wondered if you wanted to put the picture in the next newsletter and ask if anyone can identify it. It is not that difficult but might generate some interest. Get them to send me the answer on this address, I promise I will reply. I am back in December, see you then.  
Cheers, Trevor [trevor.reed7@bigpond.com]



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### December Free Landings

Pilot: Lands End, Popham, Sandtoft, Seething, Shipdam, Tatenhill

Flyer: Lands End, Popham, Panshanger, Sherburn

Today's Pilot: Chichester (Goodwood), Cromer, Tollerton (Notts), Wick

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### Events

**Sport & Leisure Aviation Show**, 2<sup>nd</sup> & 3<sup>rd</sup> December, NEC Birmingham <http://www.sportaviation.org.uk>

**Devon Strut AGM** (& Slide Show by Derek Boyce), Stowey Arms, Exminster, Thurs. 11<sup>th</sup> Jan. 2007, 20.00  
The agenda will be circulated with the January Newsletter but this is advanced notice that we're inviting nominations for committee members to cover the roles of Co-ordinator, Treasurer, PR Officer, National Council Representative and Fly-In Organiser. Please contact any existing Strut committee members if you feel like serving the greater good. (see details on Contacts page)

**Next Devon Strut Evening Meeting: Tuesday** December 12th. CAA Safety Evening  
Stowey Arms, Exminster, Exeter, **7.30 start.** (i.e. 30 minutes earlier than usual)

**Bring your log books for stamping and, as for last month's meeting, come early again as we expect it to be a full house!**

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## Tailpiece

Santa Claus, like all pilots, gets regular visits from the Civil Aviation Authority, and the CAA examiner arrived some weeks ago for the pre-Christmas flight check. In preparation, Santa had the elves wash the sled and bathe all the reindeer. Santa got his logbook out and made sure all his paperwork was in order.

He knew they would examine all his equipment and truly put his flying skills to the test. The examiner walked slowly around the sled. He checked the reindeer harnesses, the landing gear, and even Rudolph's nose. He painstakingly reviewed Santa's weight and balance calculations for sled's enormous payload.

Finally, they were ready for the check ride. Santa got in and fastened his seat belt and shoulder harness and checked the compass. Then the examiner hopped in carrying, to Santa's surprise, a shotgun. "What's that for?" asked Santa incredulously.

The examiner winked and said, "I'm not supposed to tell you this ahead of time," as he leaned over to whisper in Santa's ear, "but you're going to lose an engine on takeoff."



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**The Committee wishes all Strut members a very Happy Christmas**

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