



September 2002

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This meeting: Thursday 12th September - Britannia at Kemble

For our first meeting after the summer break we hope to welcome Steve Lewis who is actively involved with the Britannia Aircraft Preservation Trust. Steve, and his associate Roger Hargreaves will come along to tell us about how the Britannia 'came home' to Kemble, and the work they are doing to preserve it in working order.

Next meeting: 10th October - AGM

Having struggled through for a year with Ed as 'token Co-ordinator' we hope that the situation can be resolved this year. A resumé of last year's minutes will be included in the next newsletter and the business meeting will be conducted as swiftly as possible so that discussion and suggestions about next year's programme of speakers/events can follow. Do try to make it this month, we need your input!

G-BZRV update

We received this e-mail on Friday 2nd August from a very happy Nigel...

It flies!

Yes, this morning I took to the air in my Vans RV-6 G-BZRV for the first flight. All went well, so well in fact that I flew it another 4 times during the day, we now have just over 3 hours in the air.

Left wing is a little heavy, which is usual on the RV6 and a small temporary trim tab took care of that. Performance is great, only problem is slowing down! particularly as we are trying to run the engine at high rpm most of the time in the running in period and don't want any shock cooling either.

A real change from the Cub - now I can speed past the fastest cars on the motorway, not struggle to keep up with the trucks!

We are sure that when Ed returns from the USA he will also be enjoying the thrill and satisfaction of flying a superb aircraft which he has helped to build. Congratulations to Nigel, Ed and Pete for a job well done!

Places to go in September

7th - 8th	Compton Abbas	PFA Roadshow	01273 461616
7th - 8th	North Weald	Air Britain Classic fly-in	PPR: 01992 524510
7th - 8th	Duxford	IWM main display	01223 835000
8th	Belle Vue	Devon Strut fly-in	PPR: 01805 623113
8th	Popham	Auster fly-in	01256 397733
13th - 15th	Guernsey	Guernsey Air Rally www.guernseyaeroclub.com/rally	01481 265267
14th - 15th	Wroughton	Science Museum open days	01793 814466
15th	Watchford Farm	Devon Strut fly-in	PPR: 01823 601268
21st	Yeovilton	RNAS display (not fly-in)	
21st - 22nd	Le Touquet Fr.	Vintage aircraft gathering	0033 32105 0399
22nd	Turweston	VAC fly-in & vintage vehicles	01280 705400 & 01327 858138
29th	Popham	Wings & Wheels	01256 397733

New PPL in the ranks!

One of our youngest members has recently gained his shiny new PPL; Tom Kinsley completed the course at Clacton Aero Club on 4th September, and is now looking forward to joining a suitable flying group in the Bristol area. He told us how, on one occasion during the course, he was returning to the field and noticed an RAF Tucano pulling into formation with his Cub for a brief wave from the Pilot! The Tucano was also heading for Clacton to participate in their air display that weekend. Congratulations to Tom for his achievement; we all wish him blue skies and many happy hours aloft.

Whilst on the subject of Clacton Aero Club, Strut member Alan George has recently added another rating to his PPL. We thank him for sending us the following account of his exploits...

My tail-dragger conversion course

(Pictures by Tony Griffiths and Alan George)

I have been looking at PFA aircraft for some time now and generally the interesting ones are tail-draggers. For a pilot who has almost exclusively flown tricycle undercarriage aircraft I seemed to be short of the necessary skills should I ever get to fly a PFA type. My 200 hours have been spread over too many years and my one hour in a tail-dragger was in a Beagle, a sort of late model Auster, some 10 years ago which I remember being unable to fly in a straight line. There was a whole area of tail-dragger mystique that I needed to become familiar with.

So I searched for a tail-dragger conversion course which I decided to do all in one go on a residential course. I have had a Spring of cancelled weekend bookings whilst trying to renew my IMC rating which was disheartening, so a concentrated session of flying would be fun, provided the weather held. As I did not yet have any holiday plans this would be my summer break as well. I could have gone to a local airfield but as it was a holiday then I decided to go somewhere more exotic. So, with all the world to choose from, I decided to go to Clacton in Essex. Actually I liked their 'Farmstrip Special', a 5 hour tail wheel conversion course followed by 3 hours going into farm strips. It seemed a good way to get into PFA style flying, plus they operated from an attractive 600m airfield next to the sea. Having since found out that Garston Farm is 800m, just going to Clacton for the tail wheel conversion bit should be good training.

The first problem was finding Clacton airfield - driving into town from the West I seemed almost too close to the houses when I saw a sign on the left saying I had arrived at the usual Portakabin office. The course started with an introduction to Chris, our full time instructor, whom we would find had many instructional hours on tail-draggers and could bring us up to standard. Also a good

psychologist, giving banter and encouragement as required (and monetary inducements gaining 50p per bounced landing). "We" were the 2 people on the course, myself and Tony, a Brussels based Customs & Excise person expanding a newly acquired licence.

After a briefing on what we were to do it was over to the hangar as the aircraft had not yet appeared on the flight line. It was with a sinking feeling that we saw an engineer's backside sticking out of the aeroplane as something (the brakes we learned) was being adjusted. However one of the advantages of Clacton having on-site engineering meant the job was done by lunchtime and we were ready for our first lessons.



Something interesting on the tyre?

At first glance, G-BIMM, our 1955 Piper PA18-150, or Super Cub, was an odd mixture. The airframe showed signs of being well used, minor scuffs to the paintwork, some hangar rash, and a recovered fin that had lost the cheat line matching the fuselage to the rudder. The panel was an odd mix of original instruments e.g. the large oil pressure gauge, with newer ones, looking out of place in too large holes, patched into the panel. However the propeller was practically brand new and the engine seemed recent too with the paint finish in good condition.

Overall, a hard working aircraft but correct in all the right places I reckoned, as proved to be the case for the duration of our course.



Entry to the cockpit

One of the first lessons was how to get in - or actually being left to our own devices for 10 minutes to find our own best method. The right side of the Super Cub is a split door, the lower part dropping down and the upper glazed part, hinged at the wing root, rising to clip under the wing. The pilot flies from the front seat but the struts are exactly in the way to this seat and are placarded "No Step". There is a step behind the strut but this seemed more useful for entrance to the rear seat. My entry method was to put my right foot on the step and slide my left foot into the front cockpit whilst putting my bottom on the seat. Then there was a moment of sliding and juggling the stick to get myself sat straight with feet either side of the stick. Next came strapping in, a lap strap and 2 shoulder straps that looked like they came off my Army surplus rucksack which were not particularly reassuring. Getting out was much easier, swinging both legs out and putting 1 foot on the tyre, then launching forward until the other foot hit the ground as you straightened up.

For the first take off Chris was in charge and I followed through on the controls until we were safely into the climb. Full power needed a little

the aircraft. This was true in steep turns, pulling off bank angle if height was being lost, or rolling deeper if climbing, was not instant and my early turns resulted in height excursions.

Power off stalls, both clean and with flaps were a non event except for the very high nose attitude. There is no stall warning fitted but the aircraft could be felt to stop flying with a slight left wing drop. A relaxation of back pressure and the application of power had us flying again immediately. Both stalls appeared at ridiculously low indicated air speeds, the one with flap was off the bottom of the indicator at less than 40 mph. A further practice was the side slip, this essential tail-dragger skill, seemed easy enough tracking down the Essex coast but was later to prove more difficult when tracking towards Clacton's runway. The demonstrated approach to runway 18 involved a crosswind from the East and the arrival was not the most elegant, leaving me to wonder how my landings would be.

My chance came later in the afternoon. The crosswind was still there and we were still using runway 18, which was approached over a housing estate and then a cornfield before crossing the boundary fence. The heat of the afternoon was making the air quite bumpy and it was difficult to maintain a constant airspeed and heading, resulting in the time over the cornfield being used to recover the situation before the landing. With full flap the speeds were 65 mph on finals, easing up to 60 mph on short finals and 55 mph over the fence. The technique was to crab down finals until over the fence when the rudder was used to align with the runway and a little left aileron used to counteract the crosswind drift. The throttle was closed and the stick was brought back to start the flare at a height of a few feet. The stick was kept coming back, maintaining height until the aircraft stopped flying. Then the stick was in the pit of your stomach, the aircraft was in a 3 point attitude and all 3 wheels were about to touch the grass. Needless to say this perfect position was never attained resulting in bounces of different sizes, more of which later. At the same time you had picked a tree in the distance as your aiming point and were trying to make sure the aircraft tracked straight on the run out with the amount of pedal deflection increasing as the rolling speed reduced. For the next hour the approaches were made with me trying to get some but not all of these variables right at the same time. After this period I had run out of concentration and was glad we called it a day and went off for the evening.

right rudder for balance so was no different to normal. At a suitable altitude some upper air work was attempted for the first time. Turns were interesting with the adverse yaw from the ailerons needing a corresponding amount of rudder into the turn. No rudder at all, as on modern aircraft, meant an initial skidding turn in the wrong direction. Also the rudder needed to be applied again when you reversed the ailerons to roll the wings level. Ailerons, although light, did not seem to be a particularly effective control given the sparkling nature of the performance of the rest of

The next day's flying started on runway 36 whose approach came in over the sea, across a golf course, then a road and over the hedge before a displaced threshold on slightly rising ground. This seemed to suit me and my landings were better. Even as the wind veered to the East again and we swapped to 18 the improvement was maintained, where we had been doing full stop landings we were now up to touch and goes. From an initial over control of the rudder at take off, I now had enough time to track straight towards my aiming point. Power was applied smoothly, the stick pushed forward to bring the tail up to a wings level position and the rudder was used to keep straight as the aircraft accelerated to the rotate speed of 45mph.



Landing on runway 18 at Clacton

Not too much rudder was needed due to the full throttle wind over the tail and the amount reduced as speed increased. Then after lift off the aircraft accelerated and it was into the climb, stabilising at 65 mph after the one stage of flap had been retracted. The circuit was then straight forward until base leg when the work load rose again. Firstly the application of flaps caused a pitch up which had to be opposed with stick as forward trim was wound on to relieve the force. Wound on is an apt term as the trimmer looked and felt like a manual car window winder. I found it easier to get full flap on whilst still on

This was confirmed by looking inside the barn, actually hangar, where there was an immaculate 90 hp Super Cub and a Comanche under rebuild amongst others. Meanwhile the owner had gone off to get the fuel sorted and turned up in a huge ex-MOD green fuel bowser. In seconds we were full and ready to be on our way. Taking off in the opposite direction we had landed was easiest, followed by, dare I say it, another good landing after the short flight back to Clacton.

After this success I took a break whilst Tony carried on doing circuits, meanwhile psyching myself up for a solo check ride. 3 consecutive good landings said Chris and I could go solo, the pressure was on! When I came to do them the wind had dropped in the early evening and we were back on runway 36. My first approach on landing was well, ok, and got a thumbs up from Chris. However, a radio message from the office said I had gone a little low over the road and some passers by had complained I startled them. I could see no difference compared with what I had been doing before. However on the following approaches I carried a little more power to be further up the field, then flared before closing the throttle and the landings were frankly awful again. Was it the extra power upsetting the approach or was it just that I was too tired to concentrate and fly well. Either way over dinner in a pub in nearby St Osyth I was not the best company for Tony as we re-lived the day's events. This village deserves a mention as it is the opposite to Clacton's

base leg so finals were set up without any trim interruption. Then it was a matter of getting the aircraft stable in speed and attitude at a somewhat lower speed than I was used to and maintaining this for what seemed a considerable period of time as we came down finals.

The landings were improved by making sure the stick came all the way back, and I mean all the way back to your stomach, plus flaring at a sufficient height to allow the aircraft to reach the 3 point attitude before touching down, plus holding the flare until the aircraft had slowed down enough to stop flying. Too low or not enough back stick and it wheeled on with the tail banging down and then rising again in a noisy patter until the speed dropped. Incidentally no brake was used, being too busy keeping straight with the rudder pedals to use the heel brakes. If the flare was too high the bungee sprung, undamped undercarriage threw you back in the air with three recognisable types of bounce. A small bounce meant keep the stick fully back and let the aircraft settle again, a medium bounce meant keep the stick fully back and use a short burst of power to cushion the next arrival, a large bounce meant full power and the stick went forward to achieve the safety speed of 53 mph before climbing away.

After 3 hours 20 minutes of dual, although improved, I was not up to solo standard, in particular I was approaching too high and my side slips did not track the runway accurately. So we left the circuit to practice side slips for a long time from altitude, also the fuel truck was reporting a late arrival at Clacton so we were to go to a strip at Great Oakley to refuel. From overhead the strip was aligned approximately 04/22 and according to the windsock a crosswind was in order either way. The strip was long (later found to be 600m) but seemed narrow as it was bordered by fields of corn, with no grass surround. Sticking with a 1000 foot circuit I decided to approach for 22, a right hand circuit across open fields. The first approach I stopped at 200 feet and flew the length of the strip off to the right, checking for any obstructions. Then it was into another circuit followed by a good, smooth landing stopping easily in less than 1/2 the length. Taxiing up to the farm buildings I noticed a rather nice Maule standing outside, more to this farm strip than meets the eye I thought.

neater. Over the golf course at 60mph the usual day time crosswind made itself felt but I was stable and I think no longer breathing. Then came the flare and hold off, I was conscious of the aircraft stopping flying and thinking the stick should come back fully now, only to find it was fully back and we were rolling along the grass not having been conscious of the touch down. Blimey a greaser. Actually all 3 landings were good and I climbed out elated. Quite damp though as my shirt was drenched with sweat, not a picture I should think for onlookers. Anyway I had done it, I was solo in a 1955 Piper Super Cub, the tail-dragger mystique was mine to bask in. No longer just a spam can, tricycle jockey but a bush pilot - how soon that frail glow was to be shattered.

It was now obvious that the farm strip part of the course was going to stretch into another day so Chris introduced us to a new instructor, who would be there the next day, named John. More of a reserved character, he seemed a little cool at first, no doubt he was sizing us up as much as we were apprehensive about a new instructing style. Late that afternoon I went with him to do some serious farm stripping. Firstly he wanted to practice some short field approaches at Clacton so asked for a close in 650 foot circuit to runway 18 going for the undershoot followed by flying level to the landing flare. I did two of these, both were smooth landings and on the second I stopped easily before the footpath that crosses the runway after about 250 metres. Full of confidence we set off over the water,

kiss-me-quick, seaside town atmosphere and is surprising how attractive rural Essex can be. It is on a tidal creek with boats of all sorts, even Thames sailing barges moored there, plus the food in the White Hart is very good.

Next morning I was second in the aeroplane so had time to mentally run over the flight before going out to do it. Again on my favoured runway 36 I decided to ignore the comments of any passers by and do approaches as before. So unsurprisingly the landings were good and Chris jumped out. So this was it, I was on my own with instructions to do 3 full stop approaches. The first impression was how much livelier the aircraft was with just me in it. The take off was very short, just raise the tail and we were at the rotate speed. The 1000 foot circuit height was attained whilst still on the crosswind leg. Turning base and selecting full flap over the sea my heart rate was rising as the important bit came

towards the Bradwell Bay nuclear power station, looking for the strip at Tillingham which we found, and it looked like a postage stamp. I don't know exactly how long, since it was not in my flight guide, but I estimated it at 300m.

Since the windsock indicated a crosswind I elected to do an approach from the North to its approximately 36/18 orientation and again made a precautionary approach to one side at about 200 feet to check the runway condition, followed by a close in 650 foot circuit. This came in around a sewage works and over some trees needing a high approach so my landing was long and John asked for a full power go-around. Unlike my long runway go-arounds I learnt quickly by John's shout to get the power on first, then clean up a stage of the flaps after we had reached safety speed, when using short strips. So on my second approach John encouraged me to get low which entailed picking my way between the trees so that I went from West to East of the straight track to the strip before

lining up over some ponds on very short finals. Unfortunately these ponds had a hedge boundary which we had to hop over resulting in a large bounce, requiring a full power go-around. My third landing was again long having come over the pond hedge with sufficient margin so another go-around was required. After this we had disturbed the neighbours quite enough so cleared to the North with me suitably chastened. As John explained to me, what I should have done was approached from the South where there was a wheat field in the undershoot, gone down to minimum height and then flown level over the strip boundary, lesson learnt. What was most enjoyable was the trip back via Mersea Island at 650 feet, taking a 'tactical' route avoiding any buildings on our way back to Clacton. Next day I was second to fly, so at lunchtime we set off for some practice approaches to strips at Horsey Island and Thorpe, both in the vicinity of Clacton. These were to be found by me from 650 feet which limited the view of the world, the near horizon giving a closer picture to that experienced when going cross country at a more normal 2,500 feet. However the safe cruise of 65mph, with one stage of flap, gave plenty of time to pick out the landmarks, comparing them to the 1/4 million map I was carrying. This was useful as there were some ex-radar masts, now used as communications towers, not far to the North which were clearly visible against the cloudy sky.

Mission accomplished we continued our tactical route North West towards Nayland and the 'sloping' runway 32 I was briefed for. Having the word 'Nayland' mown into the grass was a dead give away and we paralleled the runway at 850 feet before turning into a large left hand circuit to avoid the hospital to the West. I was lined up at the start of the runway and as we came down finals it became apparent how steep the slope was. I was heading for a personal altiport rating whilst in the flat (surely) lands of East Anglia. The round out was quite extreme to point up the hill but the contact was gentle and soon we were slowing down with John urging me to put on power so we would not be stuck halfway up the slope. This popped us over the brow of the hill and we parked next to more barns containing a selection of interesting tail-dragger types including J-3 and Super Cubs. Obviously the

farm strip aircraft of choice. The landing fee was £2 which included a cup of coffee plus a chat with several people who seemed to be gathered there. And this was a weekday, don't these people ever go to work? Soon it was time to go back, so we lined up close to the brow and checked that no other aircraft was on base leg or finals. I waited for a few seconds more just in case someone was motoring up the hill, as to meet them coming the other way would not have been pleasant. Then with full power I got the tail up just before we dropped down the hill. I am not sure exactly what happened next but after what seemed a fraction of a second we were flying level away from the hill. Undoubtedly the most abbreviated take off I have ever experienced. Nayland is an excellent place to visit but be sure you are prepared to land on runway 32, up the hill. For Alpine flying, who needs to go all the way to France?



Spot the farmstrip in the centre of the picture

The farm strip course at Clacton is for 8 hours flying and I had 45 minutes left, which I decided to take as solo rather than visit any more strips. After the success of my greasers the day before would this be the perfect ending to my conversion course? Of course not, my landings were awful, including one bounce that I took as a medium, stick back, burst of power to cushion the arrival type but was very nearly a large, full power go-around type. We were using runway 18, the cross wind was back and I never seemed to get it speed stable on the approach. John felt that solo, with a small fuel load I could have reduced the approach speed by 5mph, or had my concentration just peaked after the day's flying? There is only one way to tell, has anybody got a 1955 Piper PA18-150 Super Cub for hire in the Bristol area?

Alan.