

THE SHADOW OWNERS CLUB



NEWSLETTER MARCH 1997

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editorial

Back in November there was a great deal of concern among the Shadow Owners brought about by the announcement of CFM Metal-Fax Limited and what was to be the future of the Shadow and Streak aircraft. At Telford there were even discussions about getting all Shadow Owners together to discuss the future. It certainly promised to be a bleak winter for the owners, and obviously more so for those directly involved at CFM..

Well as all Shadow Owners now know by now the business has been bought and the future now looks certain. On behalf of all Shadow Owners I would like to wish David Moore and his team every success with CFM Aircraft Limited.

Well its March again and time to check over the aircraft for the coming season. For me there has not been a great deal of flying over the winter, about once a month was the average. With only the weekends in which to fly, the possibilities are limited.

I am pleased to report that we will have at least the same number of Fly-Ins as last year, although it remains to be seen whether the weather will be as kind as last year with all but Tillingham being on super days weatherwise.

The Shadow Owners Club on the Internet is going very well and there has been some 650 visitors to the Home Page. This is very good considering it is like looking for one needle in about 1,000 haystacks, although most people will get to it by links from other sites such as the BMAA, PFA and Laron Aviation. During the winter it was possible to keep those members with Internet access completely up to date with the developing situation at CFM.

I have now included a Shadow Album page with colour pictures of Shadow & Streaks and a page called Shadow Landing Strip which is like a notice board where anyone who would like to contact other owners can place a message. A For Sale page has been added which can also include pictures of aircraft for sale. If you would like a message posting please send me the

details or phone me and they will be posted within 24 hours - except holidays.

The Shadow Owners Club page on the Internet is at :

<http://dSPACE.dial.pipex.com/town/terrace/ce50/>

Once again I have to make a plea for contributions for the Newsletter. If you have encountered a problem which you have solved, please let us know, not only is it important for other owners but if we feed these back to CFM Aircraft Limited it will make for a better aircraft in the future.

Finally, if anyone is going to Sun 'N' Fun in Florida in April, please give me a call and perhaps we can meet up at Laron Aviation's display in the Ultralight Park.

Enjoy your flying, and I look forward to seeing you at the Fly-Ins.

John Lord

news from CFM aircraft limited

Most of you will be aware that CFM Metal-Fax, the manufacturer of the Shadow and Streak Shadow, went into liquidation in November last year. For Shadow owners, this was obviously a sad and worrying event. I am pleased to be able to report that a small group of investors has purchased the business and assets of the former company and has put it back into production. We are now trading as CFM Aircraft Limited, and are using the same premises and phone/fax numbers as the old company.

As you might expect, there has been just a little disruption to the production of kits and completed aircraft. However, now that the dust has settled, we are hoping to have kits ready by the middle of March and completed aircraft ready for sale by early May. Perhaps not surprisingly, the stock position of the old company was not strong when

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it went into liquidation. However, we do have some spares currently available, and will have spares of almost all parts by mid March.

Our plans for the future are still being formed. But before embarking on any 'strategic' R&D projects we intend to undertake some developments of the existing product. The customers that I have been able to speak to so far give me the impression that they would like to see a few little 'extras' on the Shadow and we hope to be able to make some of these available very soon. We are also hoping to get the D Series Shadow through Section S to enable us to sell completed aircraft straight from the factory. Also, providing the microlight weight limit is increased to 450kg, we hope to do the same with the Streak Shadow. Longer term plans include new aircraft - possibly a side by side Shadow. Please let us know your thoughts.

Sadly, there have been some casualties following the liquidation. However, I am pleased to report that Steve Emmerson, Jacob Cook and Jane Simpson are back working in the business and are ready to help our customers with any problems they may have. One or two of the other former Metal-Fax staff are also working with us on a part time basis. Obviously we are also hoping to maintain the close relationship that CFM has always enjoyed with Raymond and Fiona at the Shadow Flight Centre.

From my point of view, it is very satisfying to be involved with such a wonderful product. The Shadow, which even the CAA described as probably the best microlight in the world (they would not want to be quoted!) clearly enjoys a fantastic reputation. I hope we can improve on this reputation over the next few years and persuade even more people to become owners.

Finally, please do not hesitate to give me a call if you want to know more about what we are hoping to do with the company or, of course, to give me any advice you think I could do with! I look forward to hearing from you.

David Moore
Managing Director - CFM Aircraft Limited

reports

ScotSOC 1996

For most of 1996 there were 21 serviceable Shadow variants flying in Scotland with another two still in their long gestation. Graham Linney attempted to get these aircraft together, if only by mail, through a newsletter called 'ScotSOC Noticeboard'. ScotSOC being an abbreviated form of Scottish Shadow Owners Chapter, and 'Noticeboard' to act as a focal point for **all** Shadow owners in Scotland. To tell them what was happening, where - and leave them to get on with going or not, as the mood and/or weather took them. Envious of the SOC Newsletter reports of fly-ins and BBQs enjoyed by our cousins in the South East we thought we should try and get something similar going up here if we could, and establish a network for technical advice, spares etc since not all are SOC members.

The weather is, undeniably, a factor in Scottish aviation and what follows is not the report we would have wished you to read. Still, look on the bright side; we did have some success, and that is a platform on which to build for 1997. Other people will have their own recollections of what happened and why, but this is how our Shadow events of 1996 panned out for us..

Insch Micro Week 15-19 May 96. Run by Grampian Microlight Club. An excellent little grass field just left of Aberdeen. Tom and Margaret Palmer, James Neil and Graham Linney trailed up because it was blowing a gale on the Friday as we left. We met Alistair MacDonald who keeps G-MVAC at Insch. We flew briefly on the Friday evening and Saturday morning. Then it rained and rained and rained. The strip is adjacent a burn ('stream') and by lunchtime Sunday the strip was waterlogged. The Hangar Dance on the Saturday was something else! A great, if cold and wet weekend and worth the effort (They are going to

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slip this event into the middle of the summer for 1997).

Stonehouse 2 June 96. Tom and Margaret Palmer hosted a Shadow fly-in at their shared 'private' strip. Only one Shadow flew in - Graham Linney in G-BUVX. To be fair, five Shadows live there so there was a quorum before he arrived, albeit they had not flown IN. Alistair MacDonald was reputed to be battling down from Inch with a bunch of flexwings, but the wind was too strong, and they turned back at Cumbernauld. So near and yet so far...A couple of GA types turned up too, and all in all about 30 people attended. James Neil and Lindsey Both (G-MYTH) came by road. A great BBQ was laid on for all, on a blustery and chilly afternoon.

Ronaldsay 15-16 June 96. A good idea that died a death 'cos no-one said they wanted to do it. The weather was brilliant that weekend too!

Moorsele 26-29 July 96. Graham Linney thought he was the only Scottish aircraft going with the 21 other aircraft reported to be flying to Belgium, but when he got to Headcorn David Whitelaw, a teacher from Oban, was there ahead of him.



Kirknewton 11 August 96. Graham Linney hosted a fly-in on this former wartime airfield in the Edinburgh zone now used by the ATC for glider training. The ATC were at Annual Camp. **Three aircraft flew in** on a hazy summer's afternoon: James Neil in G-MYTH, Tom and Margaret Palmer in G-MYNX and Don Cross in G-MWVH. **A ScotSOC record!** With an aero modellers rally on at the other end of the field there was a lot to keep us interested (not just on the ground either!) just as the modellers were very interested to see the Shadows flying. The BBQ was great!

Charterhall 22 September 96. Mike Smith, owner of G-MNTK, hosted a fly-in at his home airfield, another disused (but more disused than Kirknewton) wartime airfield. This day the weather was very mixed and **no-one** went - by air or road! Mike cheerfully reports that his day was not entirely wasted however; he flew a former RAF pal in his Shadow, who then soloed in the aircraft. That is putting a brave face on rather serious disappointment. Sorry, Mike.

Well, how to sum up 1996? The phrase '*You win some you lose some*' springs to mind.

We did get people together, although not as many as we would have wished, and we have produced a database of all the Scottish aircraft and their owners, so everyone knows where everyone else is and how to contact them. Graham will push out another flying events programme in March and hope that there is a greater interest shown in Scotland to flying in to Shadow events in 1997.

That programme will be copied to SOC Newsletter, and all our English cousins, especially those just over the Border, are welcome to join us for any of the events listed. If we Scots can fly from Oban and Edinburgh to Moorsele and back, there is nothing stopping Shadows coming North for a trip! Whilst on that subject.....

Just do it!

letters

Please note that the views expressed in the letters are those of the author and not necessarily of the Shadow Owners Club.

Cambridge Microlight Club, Fly In.

The club holds a Clay Shoot every year against Mount Pleasant Flying Club, at Sutton Meadows. Last year was a great success, due in part to the Rans Club who flew in for the day and competed as well. A total of 14 Rans flew in! with 4 Shadows putting in an appearance during the day.

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This years event will take place on Sunday 22nd June 1997. The committee has extended an invitation to all members of the Shadow Owners Club to Fly in. There will be a Bar-B-Q, hot and cold drinks and for the daring amongst you a chance to enter a team in the clay shooting.

A team must have 5 members, Ammunition can be purchased on the day and shot guns will be available for loan. Practise is from 10.00am to 12.00pm, with the competition starting in the afternoon. So come on let's see if we can have more aircraft than the Rans Club this year!!!

For those of you who have not flown into Sutton Meadows before I have included an airfield plan. The radio should be manned on the day, the only other point to note at present is that, as double width runways are in use please Land on the Right and Backtrack on the Left, or use the obvious taxi ways.

By then I hope to have finished the type B to C modifications to G-MWIZ affectionately known as GEE-WIZZ. She is serial number 096 a very well built factory aircraft. The engine will be changed from a 447 to a 462, the third to do so I believe, behind Frank Claydon and Bob Allen. Why a 462? Well, apart from the obvious reduction in noise levels I suppose it is to improve fuel economy, range etc.

If you are intending to fly in please contact me a few weeks before so we can ensure there is sufficient food and drink on site. Tel 01223-512061.

See you there!

Ian Bloys.

letter from Dari Sagar

Dear Barry,

Many thanks for sending me the latest Shadow Owners Club news sheet and my membership card.

I'm sure you've met most of the club members or perhaps know many of them personally as

you've been running the club for several years. Thought you might like to know something about me so here goes....

I came into flying some 10 years ago when I flew a flex wing from Shobdon. The airfield was about an hour away from where I live and found that a perfectly flyable day generally turned out to be unflyable by the time I reached Shobdon. I decided to fly something that was not so weather prone, so took up flying an Air Command gyro.

Gyros are magical to fly. They certainly fly in conditions that would normally ground everything else. Got roughly 40 hours of flying in it before the CAA grounded the type because of several fatalities. The gyro fraternity was given to believe that the grounding would be lifted fairly soon (they are STILL grounded 6 years later)! Fortunately I had a feeling it wouldn't be a quick-fix so went into fixed wing flying.

I did my training in Gloucester about 5 years ago and joined a syndicate which operated a Rallye out of Defford. Stayed with the group for about a year when I decided to go in for something more sporty and fun to fly. I decided to go for a Streak Shadow as I had heard nothing but good reports about them (my experience flying mine confirms this). I looked around for a while and finally ended up buying Nigel Ramsay's machine G-WESX.

I fly about 50-60 hours a year, mostly during the week ends. I recently flew to the RSA rally at Epinal in France and to Moorseele with Raymond et al year before last.

I hope to meet you and members of the Club in the near future at a fly-in. Why not make a trip to Defford? It's a 500m strip (09/27) and Clive Porter, the owner welcomes visitors. There is NO charge, but a donation to the Flying Mission (helping African villages to build wells, irrigate crops etc.) is welcomed. The strip could be found as CROFT FARM on the half-mil chart and is given in Pooleys and other air strip publications. It is PPR (tel no. 01386-750400. The co-ordinates are: N5205.15/W00208.09.

Hope to see you soon. Happy flying and safe landings.

Yours sincerely,

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Dari Sagar

Email from Bill Brown

Subject: MEMBERS IN USA
Date: Wed, 12 Feb 1997 12:38:41 -0500 (EST)
From: N7844E@aol.com
To: shadow.owners@dial.pipex.com

Do you have any members in North America? Do you accept applications from the USA? If you do have US members please provide subscription information and what ever the costs might be. I recently completed a STREAK SHADOW in Southern California. Please contact me at either my mailing address or "E" Mail address. send mail to William Brown, 11562 Range View Rd., Mira Loma, CA. 91752 or you may send e mail to N7844E@aol.com

Thank You

Bill Brown

new members

We welcome the following members to the Shadow Owners Club :-

David Payne of Winterslow, Salisbury who flies Streak G-TTOY fitted with a Rotax 618.

Deepak Mahajan. Deepak flies from his airstrip on the South Downs just north of Brighton.

Roy Murray - Edinburgh, Scotland. Roy is building Shadow G-MTCA.

Dari Sagar of Worcester flies Streak G-WESX.

Ian Hunt. Ian has purchased a Streak and is already a member of the well known Tiger Club and therefore appreciates an enclosed canopy.

Bob Allen - Reading, Berks flies Shadow G-MTBE (035)

personal profile

David Moore



David began his career in the engineering business as a sponsored production engineering student with GKN in Shropshire, however he soon realised that the outlook for large scale British engineering companies in the late seventies was not likely to be too good. In 1978, with some regret, he switched horses and took a job in finance in London. He considers his choice of company, Morgan Grenfell, was certainly much more luck than judgement, but it turned out well. After the usual run of fairly menial roles, he began to climb up the ladder to become a fixed interest fund manager, working for clients such as governments, insurance companies and pension funds. After eight years with Morgan Grenfell, David moved to Midland Monatagu Asset Management (part of Midland Bank) to run their international fixed interest business, and in

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1991 was appointed to run the same department at Barclays.

He had always told himself that he would stop doing whatever he was doing in the City by his 35th birthday. A little out in this respect he finally stopped just after his 38th birthday. And now, some 18 years later, David says he is finally beginning to put into practice some of the things that he learned at GKN. Of course, he says, most of it has been forgotten, but there is a little left.

On the personal side, he has always had a very keen interest in classical music, both as a listener and practitioner. David and his wife Gabriel both play the violin a good deal, mostly for fun, although occasionally they do get paid, and their four children now also play. Apart from taxi driving for the children other interests include sailing, they keep an old wooden boat at the Marina in Ipswich, and in keeping in order their six acres of wilderness which passes for a garden at their house just outside Ipswich. At present David does not fly, although flying has always interested him, he has somehow managed to avoid it. This however he considers will not be possible for much longer !

Angela

tales from captain cook

No.6 - Filming for Slipstream

Flying for film work is very different from regular flying. For instance, the 500' minimum altitude rule is ignored and when we look down from altitude when 'regular' flying and think that there is a no landing area below, at least we should have some height as an option. In film work, there are usually no 'options' and safety is heavily compromised. One has to cancel thoughts of airframe or engine difficulties being a problem. It is a confidence exercise to fly for film. The film industry pays everyone well but top performance is expected. Skills, trades and expertise are undertaken by the top people in whatever chosen vocation.

All the stunts when filming and most work outside 'sets' or studios is undertaken by the Second Unit. Usually run by an Assistant Director and fully complemented by all necessary crews such as Special Effects, one finds that flying is performed with these people.

In the film 'Slipstream', an Optica and Shadow were used because of their unusual appearance. Derek Piggott and myself flew these aircraft in England, at several locations and in Turkey. Mr. Piggott (nicknamed Lester by myself) is very experienced flying in film and I learnt a great deal from him. I began at first to ponder whether he was crazy or just plain brilliant - let's say the latter. Lester was the pilot who flew through the arch under the bridge in the 'Blue Max' many times... any volunteers?

I can recall a canyon flight in Yorkshire during 'Slipstream' which was 300' deep and tight spanwise with a couple of corners which left around two feet clearance from my wing tips and I got freaked after flying 60 times through this location. Film flying is usually dramatic and very demanding.

In Turkey, we transitted through Istanbul to Ankara, then by bus at night for several hours to somewhere - I wasn't ever sure where I was in Turkey. The next day I was flying, following a road to a mountainous area, clearly in view 50 K away and, as indicated, apart from not speaking the language, knowing where I was, where I'd flown from - I'd taken off the highway and not knowing the name of where I was going - I reckoned to be OK. The radio suddenly crackled and jumped me "Where am I?" it said. It was Mr. Piggott flying to the same location from a military airfield some distance away. "Is that you, Lester?" I enquired. "Stick to the radio procedure", came back. "Where do you think you are?" "Well, there's a large lake near me."

I scrambled the map on my knee and saw the only lake around - must be it. Directing Lester to my location, we joined up 10 to 15 minutes later and flew to this mountainous area ahead. I landed on the road at the mouth of a box canyon and parked beside the jet Ranger flown by David Paris. This canyon was about 300' wide, flat floor and rose to 1300' either side, before blanking off progress 1/2 mile later. Paris said the Shadow & Optica had to fly at the hovering Jet Ranger as close as possible, whilst it was

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positioned just inside the canyon mouth. Hovering height about 200'. The Optica loomed around but I knew if it flew in the box canyon it didn't have the performance to climb out. "That's up to Lester", crowed Paris. "My job is to film you two, separately, going in." I thought the film would be better filming us trying to get out.

Paris said "Lester came straight at me." The Turkish military observer with the Jet Ranger started to: Quote "nip sixpences" and I gasped at the closeness of the Optica as it passed beneath the helicopter. I was directing the air movements by radio from the ground, so I clearly heard Lester enquire as to the whereabouts of the Jet Ranger. Paris said "My face must have been as white as the Turks." Lester is brilliant but we all began to realise his sight wasn't good.

He was now in the canyon with the Optica and I knew there wasn't room for him to climb out the far end. Lester went right against one side wall and simply 180'd out of there. It was brilliant - so what if he can't see. I didn't think a Shadow could do that with so little room. Immediately lining up again, we were enthralled to see a repeat - except Lester saw the Jet Ranger this time. My turn. The complexities of filming meant that the Shadow was filming with an Eyemo camera aboard, as well as being filmed. I tried to get as close to the helicopter as Lester, but it is all a matter of confidence. I flew into the canyon. With a R532 on the extraordinarily painted Shadow, it would have climbed out of this canyon easily but I simulated a Lester manoeuvre only to chicken out - it looked too tight and I was in a much more agile aircraft than an Optica. I've been in trouble before (boxed in) and my technique is to fly flat out straight and level, which I did up the centre line of the canyon, go vertical and stall turn to point back the way I came in. It works well. Spectators must have said "Who are those guys?"

David Cook

technical

Inspections & Test Flights in East Anglia.

The changes at CFM has left a vacuum in East Anglia for the inspection and test flights of Streak Shadows through the PFA.

I am please to report that Peter Sturgeon is now able to take on this work. Peter is a PFA Area Inspector and Senior BMAA Inspector and is cleared on all structures and engines. He has been associated with the aircraft industry for more than 40 years, although he says he has earned no money at it!

Peter has built 3 full sized aircraft including a Viking Dragonfly made using composites.

All inspections and the majority of maintenance work, including test flights, can be carried out at your own strip, obviating the need to trailer the aircraft.

Peter can be contacted on Mildenhall (01638) 510807 or Mobile 0585 212438.

What goes up MUST come down - when you least expect it!

Those who flew to Moorseele last July may have been aware that I was a little overdue at Headcorn, and that, as the flight plan plus 30 minutes time passed, D&D were alerted. There is a story behind that and it is roughly this....

My journey to Moorseele from Edinburgh had been uneventful enough, and thoroughly enjoyable. The aircraft was performing perfectly and apart from a nasty shimmy on landing at Kortrijk-Wevelgem, I was very happy with the way the trip had gone as we started for home late on the Sunday morning. G-BUVX, for the first time ever, was reluctant to start and when it did, ran rough. The engine smoothed out as I increased revs, but ran rough again over 5,000 rpm. I contemplated resetting the carbs but decided to leave well alone until we were at least back in UK. We left Kortrijk in bright sunshine but the weather deteriorated as we headed West. As I approached the French coast I was at 400 feet and not enjoying myself. I decided to go up and saw the cloud (or coastal fog?) clear at around 2000 feet. 'VMC on top' - if there is such a thing - across the Channel did not appeal, and neither did 400 feet (would it STAY at 400 feet?) above the waves for 21 miles so I headed

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North East up the coast, intending to land at Calais for the situation to improve. As I was about 5 NM from Calais I saw a clearance stretching way out over the Channel - blue sky and sunshine. I turned left and set off for Dover, cruise climbing from 1000 feet, calling 'Mid-channel' to the Kent Coastguard.

On the outward journey, having topped up at Headcorn, I had reached Moorseele without my fuel gauge, which reads on the slipper tank only, registering any loss. It was with some interest that I noticed, as I crossed the French coast on the return journey, the fuel gauge was reading around 3/4 full for the slipper tank. A quick calculation suggested I had enough fuel for the remaining 40 or so miles between me and Headcorn. More than I had used outbound, but maybe more of a headwind? Not a problem. Sit back and enjoy the ride.

A few minutes later, having taken in the views of the shipping plying their way below, I did a quick 'FREDA' check and noticed that this time, the fuel gauge was reading less than 1/2 tank. 'Hmm, GPS says I'm 12 miles from Dover. Still OK, but watch it'...I did and could almost SEE the fuel gauge needle moving as it crept inexorably towards Empty. I then saw a wall of cloud ahead and started a spiral descent to get beneath it. I levelled off at 200 feet above the water, at cloudbase, with the fuel gauge reading between 1/4 and Empty. GPS said 8 miles to run for Dover. This was getting serious, and I was starting to get a little anxious. With the speed at which fuel was disappearing I could not go back, in decent weather, to Calais. I had no choice but to push on for Dover, flying as conservatively as possible, and hope that the infamously inaccurate fuel gauge was lying and that there was a bit more fuel in there than it was telling me there was. The needle hovered over Empty at 5 miles GPS from Dover. I should have put out a PAN call, but didn't (I won't make THAT mistake again!). I turned my knee pad over and quickly rehearsed a MAYDAY several times to myself, expecting to be doing it for real any minute...thank God I had tightened my lifejacket on boarding in Belgium. The sea looked decidedly uninviting!

Some minutes later I could just make out, through the poor forward visibility, a fuel tank farm at the base of the 'white cliffs' of Dover - what a misnomer that is! I told Kent Coastguard

'Coasting in at Dover', but foolishly did not tell him of my fuel problem. I was a good bit below cliff-top height so turned smartly left and flew over the Dover ferry terminal, still at 200 feet, and followed the coast towards Folkestone. I turned inland between Shorncliffe and Hythe, where there are fewer houses, climbing with a lifting cloudbase to around 1000 feet. Suddenly the sun came out and all of Kent was there, bathed in beautiful sunshine. Brilliant; over *terra firma* at last, but not out of trouble yet.

There was little movement in the fuel gauge needle as I selected my field for an emergency landing. It was self-selecting really; one solitary field with stock in it among a sea of standing crops, I locked onto it and attempted to position for finals. In a bit of a bowl, it was tricky to get round onto finals and my first approach was too high. With the fan still turning (by some good fortune), I went around for a second attempt and succeeded in landing safely in a field 220 metres long with about 100 metres to spare. As soon as I was stationary I attempted to call Headcorn to tell them what had happened, but although I could hear them, they obviously were not picking my signal up. I was a pretty relieved pilot when I shut the engine down. So relieved that when the irate farmer roared up in his pick-up to see 'What the **** I thought I was playing at' I was not the least bit uptight; I was positively euphoric. When he heard my story, and saw my obvious relief at having survived a fairly trying experience, his attitude changed completely and he became helpfulness itself, running me 4 miles down to Tesco's for more fuel.

An hour later, and some time after the D&D cell had been alerted to my being overdue, I had 5 gallons in the slipper tank and was ready to attempt getting out the nice farmer's field. That posed no difficulty at all and after a quick circuit and a wave of my wings to say 'Thank You' I was off to complete my journey.

So much had happened so quickly as I crossed the coast, landed and met the farmer, I had not attempted to contact Headcorn after my one abortive radio call. I should have done so at the first opportunity and by phone, so the first they heard of me was when I was airborne again with an ETA of 14 minutes. Chris Freeman enquired what had happened and I described my landing as 'precautionary due fuel problem' but was asked to report to Control on arrival. When I got there I was told that D&D had been alerted but

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were now stood down. A bottle of whiskey would soothe away any anxiety they had felt said Chris. Would I please provide? It was the least I could do, and I apologised for causing such alarm. Chris, being kind, said that in the circumstances there was little else I could have done except put out a PAN call, as soon as I knew I had a *potential* problem at about 8 miles from the coast, which would have kept other people informed and better placed to help if necessary. If I **had** made a mistake that was the only one, in his opinion. There was no arguing with that.

All but three Shadows had gone on their homeward journeys from Headcorn, and of those who remained to see how the 'overdue' ended Fiona Luckhurst, having heard my tale, suggested it was a dirty or blocked jet in the carb that may have caused my problem. I was too tired to investigate then and there, and gratefully accepted Barry and Susan Birchall's very kind offer of overnight accommodation, with the recommendation to look at it when I was fresh on the following morning, Monday.

The next day Chris had his Chief Engineer help me with my look at my fuel loss problem. I guessed it was fuel LOSS rather than a blockage, because I had put 5 gallons of fuel into a virtually empty tank at the farmer's field and the gauge had registered above 3/4 tank for the slipper tank. By the time I had arrived at Headcorn, some 20 NM from where I had taken off, the gauge was registering just over 1/4 tank. 'Hmm, almost half a tank of fuel used in 20 miles - similar to the cross-Channel leg earlier. Something is definitely not right...'

The left carb bowl was removed and cleaned; there were a few minute pieces of debris in there, but nothing significant. As we primed the system, looking at the left carb bowl, fuel started GUSHING out of the right carb air filter! 'That's your problem' said my new found technical expert, who then stripped down the right carb bowl. As soon as the bowl was off the problem was self-evident. One of the two floats in the bowl was cheekily bobbing about and floating, as you would wish, while the other one lay sullen and lifeless at the bottom of the bowl. The non-buoyant float was removed, cleaned and dried and put back onto it's spindle in the bowl, which was still fuel of fuel. It fell with an almost audible 'clunk' to the bottom of the bowl. 'That,

my friend, would stop the valve operating and allow fuel to flood up into the body of the carb and out through the air filter - which is what we just saw happening. It might even be worse in flight due to slipstream effects creating a bit of a syphon' said the Chief Engineer.

Chris Freeman knew all about this type of problem when I told him. 'Composite floats are coated in Shellac' he said 'and when the Shellac is broken down by abrasion or chemical action the float absorbs fuel - or perhaps the oil from the fuel - and loses buoyancy. Stick to copper diaphragm floats!'. (Impossible with a Rotax 582?) Although Chris offered a First Aid remedy of heating (cooking!) the float in an oven and then painting it with nail varnish I opted to order new floats from Cyclone Hovercraft. Feeling a little insecure about the floats that remained I ordered a set of four to replace them all at once. The nice man at Cyclone told me I didn't want to do that. I told him that I did. At £15 plus VAT a float, he asked? 'Er, no. Just make that two please, I'll replace the others later in the year.'

As good as his word, the new floats arrived by post next day at 9.00am. They differed from the original floats I had in the carbs in that they have their outer shoulders chamfered off, presumably to avoid abrasion against the carb bowl casing? Anyway, I fitted the new floats, ground-ran the engine and all the rough running heard at Moorseele had completely disappeared; it has not recurred and I did not/have not adjusted the carburetters at all.

Bad weather prevented me leaving on the Monday or Tuesday and I finally departed for Edinburgh at 1115 on the Wednesday, landing at my destination at 1945 after two stops en route. The engine was faultless and fuel consumption within expected limits. All I had to worry about was the noseleg, which had taken a bad shimmy at Kortrijk and which - for some reason - I had almost forgotten about....

Moral of the story: although designed to stay up/float, you should not **rely** on the carb floats to do so. It is only the integrity of the surface coating that prevents them sinking. A periodic check of their buoyancy in your fuel mix would be a wise precaution. Any variation in their buoyancy is a cause for concern as inconsistency can indicate latent development of the problem I encountered.

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Afternote:

I have now changed all my carb floats to the 'new' type; I am also going to fit a dual fuel gauge and install a sender unit in the main tank during the winter. That will hopefully eliminate any more nasty surprises over water! I had had a proverbial 'close shave' over the Channel, and I know it. As much as I have survived and did get a couple of things right, it was my first long distance and cross-Channel trip and I know I got a number of things wrong. I have learned several lessons from the whole experience; at least I am alive to tell you this tale so that you, too, can draw your own lessons from it.

Happy landings.

Graham Linney

Flat Battery !

During the winter I have had problems with what I thought to be a flat battery brought about by the cold weather. I took the battery home and charged it but found after only three engine starts it was flat again. On deciding that there must be another problem I decided to check the voltage across the battery with the engine running. The voltage should be around 13.5 - 14.0 volts with the engine running and charging, however the voltage remained around 12 volts indicating that the battery was not being charged.

This narrowed it down to the engine, the regulator, the wiring or the 16 amp fuse between the engine and the regulator. Having visions of having to pay out for a new regulator and having to explain to Angela why they cost so much (I'm still sore after paying £30.00 for a radiator cap), I was relieved when I found it was only the fuse had blown. On replacing it the voltage across the battery with the engine running now achieved 13.5 volts. Problem solved, or so I thought, and I took the battery home to give it a top up charge.

Two weeks later it was good flying weather so the battery was re-fitted, however on trying to start the engine I was back to the old problems with the engine turning over but without enough

energy to fire the engine. This led me to conclude that the battery must be at fault.

Not wishing to lose out on a good flying day I jump started the engine (M4 Microlights electric starter does not give the benefit of a pull chord as does the Rotax E gearbox) using a leisure battery I use for a light in the trailer and a special connector I installed in the rear cockpit for such occasions. On landing after the final flight for the day we noticed that the prop had been hit. Inspecting the engine we found that the culprit was an M8 bolt which had come out from the ignition plate. On replacing the bolt and checking all other bolts etc. I noticed that the wire from the starter solenoid to the starter motor was loose in the tag which connects to the starter motor and there was evidence that the connection had been getting hot due to the high resistance joint. Could this be the cause of the flat battery symptoms ?

The battery has again been removed and charged. To test it I placed a 1 amp load across it by virtue of some substantial resistors and timed the amount of time it takes for the voltage to drop to 10 volts. It took 12 hours, and given that it is a 12 amp/hr battery it is obviously ok.

Feeling confident that I had now definitely solved the problem, the battery was refitted together with the repaired prop. The machine was pulled out on the strip prepared for starting the engine. Expecting to hear that positive click as the solenoid pulls in followed by the whirr of the starter motor, I was somewhat dismayed when I appeared to be back to the flat battery syndrome. Knowing that the battery was ok I started to look further.

On turning the prop, it seemed not to be quite as free as it should be, and so I removed a plug from each cylinder and spun the prop, or rather tried to. Something was clearly wrong with the engine producing a creaking noise with the prop at a given position. With the help of Frank Claydon of 462 powered 008, and Goldwing fame, the cylinder head was removed to reveal that one of the needle bearings from the small end was apparently missing. It seems that one needle bearing had escaped when the piston was re-assembled following the 100 hour service and when the engine was started had decided that the inside of the cylinder was a very hostile

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environment and it wanted out, and it wasn't fussy which way !

The engine had run for some 4 hours in this state with no apparent loss in power. The only symptom being that of a flat battery as the starter motor did not have sufficient energy to overcome the resistance of the added friction in the front cylinder otherwise everything else seemed normal with a slight increase in the EGT from 1200 deg F. to 1250. Indeed had it not been for wanting to get to the bottom of the difficulty in starting the problem would probably have gone un-noticed resulting in an in-flight failure at some point.

As my field is electronics and not engines, I did not do the 100 hours service. The engineer who did the service was devastated, to say the least, and has now rebuilt the engine.

The moral of this story, which I should have remembered from my service engineer days, is that it is not always the obvious which is the cause of the fault. Oh and what blew the fuse you ask ? Connecting the jumper leads the wrong way round when landing at another field.

If you do not do your own engine service and get it signed off as appropriate, I suggest that you check with the person who is going to do it that they have adequate insurance cover. I was fortunate in that the problem was identified on the ground, albeit after 4 flying hours. It could have been a very different story had the engine let go whilst flying and I am sure that any insurance company would be looking to recover any pay out they have had to make as a result of a failure brought about by an oversight on a service.

John Lord

Battery Charge Indicator

As a result of the starting problems I discovered a magic device at Tandy's for giving an indication of the state of the electrics. It is a totem pole of LED's which illuminate at different voltages with indications for battery charging etc.

At a cost of £7.99 I considered this the perfect solution for permanent installation to show the voltage and charging of the battery. The unit is relatively small being long and narrow and can be installed where the instrument panel meets with the armrest beside your left knee. Fuse holders are often placed on the corresponding place on the right hand side.

John Lord

crosbie's corner

Wing Lockers.

Kits are available at £400.00 plus VAT. This includes full fitting instructions, spring loaded bolts, all materials including, appropriate paperwork for the BMAA.

Folding Wing Kits.

These have been sold and fitted to Shadows and a Streak. I can supply panels to fit new kits under construction for around £50.00 which will enable you to fit my folding wing system to an aircraft in about two hours, lets face it, all small planes should have folding wings, after all it is 1997.

The system is fully jigged and in production and sells for £600.00 plus VAT, including submissions for the BMAA and PFA.

Side Windows.

Full kit £65.00 plus VAT with submissions or fitted by us at £135.00 plus VAT.

Trailer.

I have designed built and tested an open type trailer to carry a Shadow/Streak with the wings folded. One person can load it very easily. It has wind deflectors at the front eliminating road grime, mud etc. from the aircraft.

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It is very light, very safe and reasonably priced at around £1,000. Consider a normal Shadow trailer at about £4,500, spend around £1,800 inc. VAT on my folding wings and trailer and you still have £2,900 for you to extend your garage at home to store your aircraft and work on it in the luxury of your own home and of course you can rig the aircraft single handed when you get to the strip.

The Big Question

What is anti-drag ?
What could it do to a Shadow ?

Answer.

The factory know !
The C.A.A. know !
The BMAA know !
The PFA know !

but when will we know ?

Hope to see you at our fly-in on 1st June 1997 where you will be able to see the above products and discuss ideas for the future.

Danny

fly-ins for 1997

OLD WARDEN, 11th May 1997

Another visit to this popular airfield and museum near Biggleswade in Bedfordshire at N520530 W000190. Full details can be found in Pooleys. Note - There may be other small events taking place in the spectator areas so fly a full circuit to give time for any models to land.

SUDBURY SUFFOLK, 1st June 1997

Once again Danny has made his strip available at Little Cornard, near Sudbury. N520084 E0004479. The strip is N/S 400 yds at 100ft ASL, situated between the railway line and road. Circuits at 800ft to the west only. The approach from the south is clear, with descending ground to the strip. Danny's house is at the north end of

the strip. Note the alternate date for this fly-in is Sunday, 29th June 1997 if weather forces the postponement on the 1st June. Bring your swimming costume if the weather is good. Radio contact can be made on 129.825, subject to the radio operator turning up on time this year. For further details contact Danny on 01787 375202.

DUXFORD (EGSU), 17th August 1997

Hopefully this year the weather will be kind as last year and we can make it to the Imperial War Museum at N520568 E0000763. There will be a landing fee and an admission if you wish to visit the museum. We suggest you make an early start if you have not been there before as there is a great deal to see. Our alternate date for Duxford is 14 September 1997, in the event the weather takes out 17 Aug.

TILLINGHAM, 31st August 1997

Once again Tony Batten is hosting this event at Stowe Farm, Tillingham, Essex. We are grateful to Tony and the strip owner William Proctor for making this event possible.

PPR. Please phone Tony on the morning on 01621-779-556.

OTHER EVENTS

The following is a list of non-SOC events where it would be nice to have a strong Shadow influence :-

SUN 'n' FUN, LAKELAND, FLORIDA 6th-12th APRIL 1997

Cloudbase Aviation, Redhill, Surrey 20th April 1997

Fly-In & Barbeque. Buffet Fee £2.00
Ring Cloudbase (see advert) and PPR Redhill ATC on the day please.

MICROLIGHT TRADE FAIR, POPHAM 3/4th May 1997

SUTTON MEADOWS, CLAY SHOOT

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22nd June 1997

PFA RALLY, CRANFIELD 4/5/6 JULY 1997

A note for your diary

16-17 August 1997 will be the East of Scotland PFA Strut **Festival Fly In**. Timed to coincide with the Edinburgh Festival, it is held at Kirknewton Airfield (look for it in the Edinburgh zone, about 4 NM away from Edinburgh at 7 o'clock). The event is open to ALL aviators whether they fly flexwing or fixed wing, Parasol or powered parachute. For those who want to make a weekend of it, camping is available on the airfield, as is mixed bunked accommodation (sounds interesting!) with washing and toilet facilities available on site. There will be a 'Shad-ey Corner' for the Shadow owners to get in a huddle. Further details will follow. See you there!

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Shadow "CD" G-MYOH

Built 1994, 120 hours Airframe & Engine, Dual Controls, Long Range Tank, Electric Trim, Full Radio Fit & GPS available. Based at Popham, own enclosed hanger storage.
Call Steve Smith: 01252 365416 (work)
0468-610777 (mobile)

G-MNWK - Shadow 'C'

Half Share, would consider split, new 503 engine, Fully maintained, excellent condition, Including four wheel trailer.
£6,000 ono - Telephone:- 0181 302 7612

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SOLUTION TO SHADOW CROSSWORD NO.1

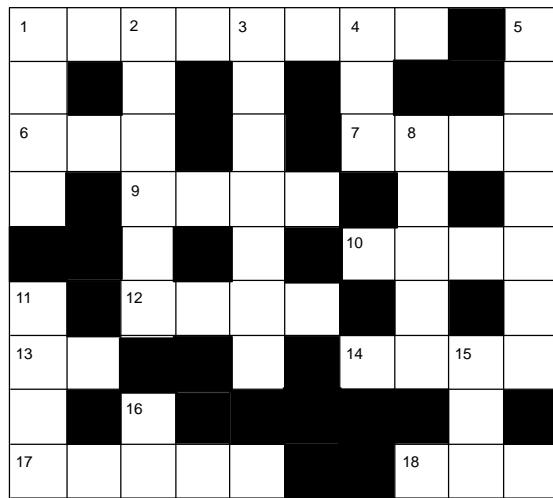
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compiled by Angela

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SHADOW CROSSWORD NO. 2



Across

1. Main structure
6. Engine cooling System
7. Bladed equipment
9. Compass point
10. Manual input to start
12. Tied to speed measurement
13. Radio modulation
14. Seat for passenger
17. CFM's David
18. Fastener for inspection

Down.

1. Panic on the wing
2. Follows a Shadow
3. Factory home town
4. Space or cover
5. Flying association
8. Map out for navigation
11. Place for rural strip
15. Found in instrument panel
16. Located at N5143.17 W00104.32

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