

CHIRP GA FEEDBACK

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EDITORIAL

It is common for neighbouring airfields to have Letters of Agreement (LoAs) to minimise interference and maximise cooperation between their operations. Similarly clubs, schools and other organisations that are located on airfields will have LoAs to integrate their activities with those of other units and the host. However, it is also common for these LoAs to lapse over time as cumulative small changes to facilities, procedures and people on either side make them increasingly inapplicable or irrelevant. LoAs need to be reviewed and refreshed regularly and frequently and the resulting changes promulgated to everyone concerned. Nowhere is this more necessary than LoAs with military units where a rapid turnover of personnel is all but guaranteed. As we approach the forthcoming GA season of increased activity, it is a good time to dust off your LoA, meet with the other signatory and make sure it matches your requirements for the next 12 months. It can be socially and professionally rewarding as well as improving safety.

Our Editorial in the previous edition of FEEDBACK about dressing appropriately drew a large number of comments and some helpful snippets that included:

First Aid Kits. I carry a first aid kit including 2 of those Space Blanket tinfoil sheets - folded up really small in a sealed packet bought for a pound or so. They are quite big when unfolded and would even (with the aid of a pocket knife) turn into a sort of poncho if the hike to find help was a long one. Even if the day is hot, the shock factor causing the blood to rush away from extremities could be enough to cause serious chilling - it's why the first aid services always wrap car accident victims in space blankets. (A note about First aid kits: some sterile dressings have 'use by' dates and these items will require replacing to stay in date)

High Vis Jackets. To the best of my knowledge, not a single one of the popular aviation products retailers has gone to the trouble to source flame retardant, anti-static high-vis vests, yet they are readily available. Just Google 'high visibility flame retardant anti-static'

Mobile Phones and Management Radios. It would be useful to remind readers about mobile phones and management radios in the proximity of fuelling areas and open aircraft tanks. Don't think I've been to an airfield in the UK where the fuellers are not wearing a squawking radio or some hapless pilot is on his mobile phone at the pumps.

And finally, for those of you who use tablet devices in the cockpit, you will wish to be aware of a fire hazard associated with worn or damaged cables or replacement cables that do not meet the original manufacturer's specification. <http://avherald.com/h?article=4b41f818&opt=0> There is an EASA Notice of Proposed Amendment to the document (AMC20-15) that covers portable electronic devices that would require power cables for tablet devices used on Part-25 aeroplanes (large transport aircraft) to meet appropriate standards. However, for anyone using a tablet in the cockpit, or anywhere else for that matter, it would be prudent to ensure the lead and connectors are in good condition and when necessary replace them with parts from the original manufacturer

Ian Dugmore – Chief Executive

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FUEL SELECTOR OFF

Report Text: I was conducting solo night circuits to retain currency in order to carry passengers at night. While conducting the downwind leg checks I changed tanks to the fullest. The tank selector on the PA32R is located on the floor under the throttle quadrant.

Inadvertently while changing tanks from right to left, I had pushed the selector up against the hardware stop built to prevent accidentally selecting off while changing tanks.

While turning base the engine began to run rough and power was lost.

The engine failure checklist called for changing tanks, which upon doing so immediately restored power, enabling a safe landing.

Upon landing the aircraft I examined the fuel selector and found the built in stop was still functioning and pushing the selector against the stop did not reproduce the problem on the ground (I assume because of lower power selection on the ground).

The fuel had been drained prior to the flight and found to contain no contamination.

Lessons Learned - Checking fuel for contamination on the PA32 is imperative including operating the under fuselage drain.

Night operations include unique hazards, which require visually checking items by torchlight.

One cannot be complacent in assuming that inbuilt safety devices will always work.

I will modify the checklist for the aircraft to include starting on the left tank to avoid having to change to that tank and risk pushing the selector too far.

CHIRP Comment: Whilst it is normal procedure on the PA32 (and other aircraft types) to select the fullest tank for landing it is also recommended to switch on the electrical fuel pump before making the tank selection and to leave the electrical pump running for some 30 seconds after the fuel tank change to prevent possible fuel starvation. The fuel selector can be problematic on the Piper PA32. It does have positive detents for each selection and normally requires a positive “two-handed” operation to depress the safety feature in order to move the selector to “off”. However, it is in an awkward position to operate and to check visually the selection that has been made. Although the selector and the stop appeared to be working normally when checked on the ground after the incident, it would be prudent to have the aircraft checked by an engineer to ensure there was no hidden or dormant failure. The reporter’s comments about modifying the checklist require caution since checklists are normally part of an aircraft’s airworthiness certification.

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LOOSE OBJECTS IN THE AIRCRAFT

Report Text: I was several hours into a tail-wheel conversion course with an instructor at my flying club. During taxi to the runway hold point we heard a 'thump' in the aircraft. My mobile phone had fallen out of my back pocket and onto the floor space at the instructor's feet (the seating configuration of this aircraft type means the occupants sit in front/behind each other rather than side by side). The instructor picked up the phone and told me to ensure it was properly secured. He briefly explained the potential consequences of objects lodging in the floor around the control stick and the potential for losing control of the aircraft. After securing the phone the lesson continued as normal, without incident.

On the first lesson in the aircraft (and on subsequent lessons) the instructor made clear to me the importance of making sure the floor was clear of all loose objects. Being a tail wheel aircraft, the angle at which the aircraft sits on the ground means that any objects will have a tendency to fall aft towards the area behind the normal P1 seat. Had the instructor not been on board and the phone fallen out during flight then it is possible that it could have lodged in the area around the P2 stick with potentially disastrous consequences.

Lessons Learned - As well as checking the floor area is clear of all loose objects, I will ensure that my pockets are empty and all their contents are safely stowed in my flight bag.

CHIRP Comment: A good lesson and one we are pleased to publish. Zipped pockets are an alternative to empty pockets; anything that is needed in flight and might be dropped should be tied on.

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FLYING JUST ABOVE CLOUD TOP

Report Text: I was due to fly from [the west of London] to [the south coast]. The weather for departure was overcast with about 1000ft ceiling. The wind was almost calm. I have an IMC rating with more than 40hrs IMC time. These conditions were just acceptable for a transit to [], which I have done many times. Take-off was at 0745 UTC. [The aircraft] was operating with a mode S transponder that was functioning correctly.

After a normal take-off I contacted Farnborough LARS to request a traffic service but was initially refused because I was still at that time too low [below 1500ft]. I climbed slowly and cautiously in complete IMC and repeated the request for a traffic service. Just as I was emerging from the cloud at about 2000ft, I received a traffic warning from the ATCO.

As I emerged, an aircraft passed R-L barely above my altitude and I would estimate 100m-200m in front. I was easily able to read the registration (but did not note it down). A second or two difference could have led to a collision. The incident was all over before I had any possibility to react. I asked the controller if the traffic warning was for GXXXX which had just passed me but do not recall a reply.

The traffic warning was too late for me to usefully take any action. I was climbing cautiously because I was aware of such a risk.

The other aircraft was very close to the cloud top, giving me, emerging from cloud, insufficient time to acquire traffic visually, even with a traffic warning. Also, as it was so low above the cloud tops, the other aircraft would have had no time to see me. I do not know what service the other aircraft had at the time or if it had a traffic warning system.

I then concentrated on the rest of the flight, which was uneventful. After reflection I have now contacted NATS to find out if my perception and memory of the incident as highly risk bearing is correct and if this really was an Airprox. I would very much like to know how close we really were.

The main point that I would like to emphasise is that the other aircraft flying only just above the cloud top gave itself very little chance to see and avoid in this instance. I realise that controlled airspace in that area starts at 2500ft, so there is not much vertical space. Nevertheless, it would have been prudent for the other aircraft to have greater clearance from the cloud.

I also wonder if the restriction against a traffic service below 1500ft is wise, especially close to Farnborough with a significant number of movements and in the area of a choke point at the end of the Biggin-Farnborough corridor between Heathrow and Gatwick CAS. Could the minimum altitude for a traffic service be reduced within a certain distance from Farnborough?

I don't know what additional precautions I could have taken, but an earlier traffic warning with altitude could have helped.

I must emphasise overall that this is not a complaint against anyone. I am making this report about the circumstances because it may help other pilots avoid a similar situation.

Lessons Learned:

(1) When flying above a cloud layer, always give as much margin as feasible against pop-up aircraft climbing through cloud.

(2) I wonder if the restriction against a traffic service below 1500ft is wise, especially close to Farnborough with a significant number of movements and in the area of a choke point at the end of the Biggin-Farnborough corridor between Heathrow and Gatwick CAS. Could the minimum altitude for a traffic service not be reduced within a certain distance from Farnborough?

CHIRP Comment: The reporter submitted an Airprox report about the incident, which is under investigation by the Airprox Board. At this stage we would simply like to answer the reporter's question about the minimum altitude for Farnborough LARS to provide a Traffic Service. For any radar unit the minimum altitude for providing a radar service is dependent upon the performance of the radar system and the surrounding topography. For Farnborough LARS the minimum altitude for providing a Traffic Service in the area reported is 1500ft.

Under the Rules of the Air, pilots share an equal responsibility for avoiding collisions. Flight in Class G Airspace in IMC without a radar service means pilots are unable to fulfil their collision avoidance responsibilities. In extremis, if it is essential to climb through cloud below the minimum altitude for a Traffic Service, the least bad option is to establish a Basic Service and advise the controller of the intention to climb with a request for a Traffic Service when able. Below 1500ft the controller could not provide a surveillance-based service but might have been able to provide generic Traffic Information.

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LATE RUNWAY INFORMATION

Report Text: On approach I called final and was advised that my landing was to be on the north side grass and not the hard runway that I had planned for. I sidestepped the approach and landed without issue.

I was not aware of a NOTAM advising the hard runway to be closed due to the runway designator being changed - there were work people and vans on the hard runway. I was not made aware on initial radio

contact, nor on my PPR call that morning that the hard runway was not available as it was obstructed and that I was to land on the grass. I was only advised on final that I was to land on the grass runway.

Lessons Learned: - Be prepared for the unexpected, I could have gone around but I had enough time to adjust the approach and land on the parallel runway.

On initial radio call clarify which runway you intend to land on, the runway numbers can mean either the hard or grass.

CHIRP Comment: Many CHIRP reports concern communications: messages that don't contain all the necessary information, messages not received, not acknowledged correctly and information not assimilated. Whenever there is an option (in this report the hard runway or the parallel grass runway) it is advisable to make it clear which option is required on every transmission and acknowledgement.

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COWLING LOSS (PA31)

Report Text: The aircraft had just been in maintenance and was parked at the maintenance base prior to a training flight with an instructor in the right hand seat as Captain. The Pilot Flying (PF) conducted a very thorough walk-around check using an electronic checklist and checking off each item; in addition he opened and closed the inspection flaps on both cowlings to look inside for possible loose items inside after maintenance. The cowlings appeared secure with all securing studs in place. After a normal taxi, full power take-off and simulated engine failure exercise, climb power was restored and the aircraft climbed to the cruising altitude. As the aircraft was levelling off at 2400ft and 155kts some 4 minutes after take-off the pilot suddenly felt a slight vibration as the right hand cowling flapped up and detached almost instantaneously. All was over in a matter of seconds - the instructor in the right hand seat didn't see the cowling move; the PF felt slight vibration and immediately turned his head to check engine instruments and then to see if the instructor was simulating another failure at which point he saw the cowling depart. The PF promptly declared an emergency, reduced airspeed, turned back to the airfield and made an uneventful landing (symmetric, but poised to shut down the right hand engine if a problem arose) with fire crew in attendance. Entire flight time was 7-8 mins.

An inspection after landing revealed a small portion of upper cowling remained attached, it was apparent that studs on the outboard edge and bonding of fibreglass to metal brackets at the front had failed through force, but three inboard fastening studs remained intact with no obvious sign of force. The cowling was located in a field after a quick reconnaissance in another aircraft and recovered, completely flattened, with fixings not present, so it was not apparent how the inboard studs had become detached. The two pilots had, some months previously, removed the cowling at another airfield and noted that it was problematic to align all the cowling studs, a fiddly two person job and it is possible that when maintenance replaced the cowling it was seated but somehow the 3 inboard studs were not properly located/secured although leaving nothing obviously wrong on visual inspection. The AAIB were informed but promptly downgraded the investigation after seeing photos.

Lessons Learned.

1. This incident did not happen as a result of a rushed walk-around. On the contrary, the walk-around was deliberately more meticulous than usual due to the aircraft having just had maintenance and a deliberate attempt to try out an electronic checklist systematically. Short of trying to lift the upper cowling and checking the individual studs with a screwdriver (not in checklist), it is not clear how the pilot would have noticed the issue (assuming this was the cause).
2. The lesson here is more for maintenance to check positively that the cowling studs have located. And here it seems that only 3 possibly loose studs on one side were far more important than the dozen or more at the front, other side and rear which were clearly in place which is perhaps slightly counter-intuitive - a number of aircraft have ageing cowlings with loose fixings so possibly a moral is don't be tempted to tolerate even one missing or loose stud.
3. The general lesson to do pre-flight more rather than less thoroughly after maintenance was followed but perhaps a further message is just beware to expect the unexpected even after that!

I haven't felt a need to declare an emergency before (I arguably didn't really need to declare an emergency here but I was close to the airfield and aware that there might be jet traffic shortly being vectored for the ILS (plus, I wanted, if possible the location of the cowling to be identified) so I thought it was better safe than sorry to jump in and request to land ASAP before the disturbed airflow possibly caused the bottom cowling to come loose and foul the gear or something else and possibly turn a mild annoyance into a serious irritation!).

CHIRP Comment: This incident was well handled and the decision to declare an emergency was without doubt correct. In addition to potential damage to the engine and airframe as the cowling departed, on some aircraft types the loss of a cowling can result in secondary effects such as oil being sucked out of the engine or engine overheating.

In any situation in which an aircraft is better on the ground than in the air it is advisable to declare an emergency and have all the resources of ATC and the emergency services at your disposal. If there's any doubt – there's no doubt!

The engine cowlings on this type of aircraft are fairly large, heavy and awkward to install; as such it requires 2 people to install them safely. They are secured with a number of fasteners of varying length and their respective lengths are critical to ensure secure attachment of the cowling. Detecting an incorrectly fitted or fastened cowling during the walk round would be very difficult.

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FORGOTTEN FUEL CAP

Report Text: My friend and I flew to [] from [] uneventfully with me as front seat passenger. After a break for lunch it was my turn to fly the return leg. I conducted a walk-round and my friend agreed to dip the tanks to ensure sufficient fuel for the return leg. We monitored fuel burn meticulously, not least because we have found the fuel gauges of our [aircraft] to be inaccurate. The dip readings showed 100 litres in the tanks, sufficient for just over two hours at 155 mph based on recent experience. That would give at least an hour's reserve on arrival.

As both aboard were pilots, we agreed how my friend would assist with the flight then I taxied the aeroplane out for departure. Prior to departure we could smell fuel in the cockpit so we checked the drain cocks under the wing (by opening the door and reaching out rather than exiting the aeroplane) then dismissed the matter when no obvious source of the smell could be found.

En route back to [] I noticed the fuel gauges were reading empty on the left and almost empty on the right. I remarked to my friend that this coupled with the fuel smell prior to departure were of concern and he reassured me that he had had a similar experience in the past and the gauge readings had proved to be erroneous. Moreover, we knew we had over an hour's fuel reserve on board so I took no notice and continued on towards home.

With [destination] in sight I initiated a cruise descent and at around 1400 feet the engine began to run down. I applied carb heat and it recovered briefly before stopping altogether. I immediately realised that we had a fuel issue and made a Mayday call on the local frequency. I would estimate that less than a minute later, we were on the ground, following, thankfully, a successful forced landing with no damage and no injuries.

On exiting the aeroplane, the understanding of how close a call we'd had begun to dawn. Then my friend spotted that the fuel cap was missing. We dipped both tanks at the scene soon after landing and found them to be dry!

Following a call to [the land-away location] the following morning, the fuel cap was found on the grass where we had been parked!

Lessons Learned - I was P1 and as such wholly responsible for the safety of the flight. In future I will not delegate responsibility for any safety critical task (or any part of a walk-round), no matter how competent the 'assistant', when I'm P1.

I should have thoroughly checked for the source of the smell of fuel prior to departure rather than quickly dismissing it as a trivial matter.

I will always check the fuel caps myself prior to every flight.

I should not have let the confirmation bias on the fuel readings en route persuade me that all was well and should have read the obvious signs and diverted immediately with plenty of potential diversion airfields nearby.

CHIRP Comment: We are grateful for this honest report and agree with the Lessons Learned. Of note, any fuel state which requires the declaration of an emergency by the pilot is an occurrence that is reportable to the AAIB.

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A/G REMIT AND INACCURATE WIND READOUT

Report Text: The airfield has 2 windsocks but the A/G operator relies for his information about the wind on an anemometer that routinely indicates a 40 degree difference from the windsocks. This causes the A/G operators to favour a different runway from the one indicated by the windsocks.

Some time ago the original aviation anemometer failed and the airfield replaced it with a device that is poorly sited. Another factor is that there is a 3 storey building recently built on land immediately adjacent to the airfield such that when the wind direction is between southwest clockwise to northwest there will obviously be shielding and funnelling which will affect the readings of the anemometer.

The issue is that the A/G Operators regard the indicated wind as "gospel" and one ends up having to argue the toss to stick out for the best and safest runway for departure and arrival. We then operate on a runway different from other airspace users as the A/G Operator still allocates to them what they consider to be the best runway. This creates potential conflict in the circuit pattern and ramifications for flight safety.

The broader issue is that A/G Operators do not seem to be subject to any regulation and recurrent checking to maintain their Certificate of Competence and more and more overstep the mark and start acting as a control service. Furthermore the airfield "management" will not take steps to address important issues that affect flight safety. As an experienced pilot I am prepared to take any flak when insisting on a different runway but inexperienced pilots often do not have the confidence to do this and unwittingly believe they are operating within their own and the aircraft crosswind and other performance limits when in fact they are not.

Lessons Learned - This is a perennial problem and as an experienced instructor and pilot I become more and more exasperated with the airfield management who don't seem interested in addressing these issues.

Ideally they would install an anemometer that is properly sited, calibrated and maintained correctly. I doubt this will happen as the airfield operator won't spend any money on what they consider to be frills.

However the A/G Operators could be taught, especially when only one aircraft is operating, to say something like "Indicated Wind is XXX/YY, the windsocks appear to favour RW ZZ, which runway would you like for departure/arrival" and then leave the choice of runway to the pilot rather than trying to operate as a licensed ATSU and dictating which runway in use. (That said even at an airfield with licensed ATSU the pilot is at liberty to request a different runway for departure or arrival).

CHIRP Comment: The A/G operator might not have a view of the airfield so information provided by the anemometer needs to be accurate. That said, the nomination of the runway in use might also be influenced by other factors e.g. noise abatement considerations. Pilots should use the windsocks and are at liberty to use whichever runway they choose provided that they do not disrupt the traffic pattern previously established by other aircraft. As this is a licensed airfield, the operator must have a Safety Management System and a Safety Action Group. This Group is the appropriate place for stakeholders to raise issues such as those included in this report.

The broader issue of A/G Operators exceeding the provisions of their Certificate of Competence by issuing instructions and clearances to pilots is frequently reported to CHIRP. To be fair, sometimes pilots encourage this by asking for clearances, which indicates that some pilots do not understand the provisions and limitations of A/G services. Once an individual has qualified for a Radio Operators Certificate of Competence there are currently no routine checks or refresher training required. There are possible changes in the pipeline from EASA. The Authority issued a Notice of Proposed Amendment under Part ATS about airfield operations in 2016 and is due to publish an Opinion in the second quarter of 2018. This may have far-reaching implications for operations from minor airfields.

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SPURIOUS TRAFFIC RETURNS FROM WINDFARMS

Report Text: My local LARS unit persistently calls contacts generated by windfarms. These windfarms have in some cases been in existence for over 20 years. It ought to be possible to 'deem' contacts that appear 'in the vicinity of a known windfarm' as what used to be called ground returns, particularly when these contacts have been appearing in the same place all day. Unfortunately since the introduction of Air Traffic Services outside Controlled Airspace [now referred to generically as Flight Information Services] air traffic control has completely surrendered any responsibility for the quality of the information it provides, transferring this responsibility to the pilot.

Situation: C152 receiving a Basic Service. Very bumpy, weaving between clouds at about 4000ft over terrain rising to about 2000ft. Mountain waves making height keeping difficult. Suddenly ATC comes up with 'Multiple intermittent contacts in your area, no height no speed'. No use of the usual caveat 'in the vicinity of known windfarm'. There was one of those dreadful catch-all gliding competition NOTAMs in force and my

first thought was 'OMG – gliders!' My second thought was 'OMG – geese!' which are arriving in enormous numbers. And then quite quickly I realised that it was just the usual windfarm nonsense. Now I have real problems to deal with: a forty year old aeroplane, terrain, ice, weather, fuel and so on. I can do without this sort of silliness.

CHIRP Comment: Controllers are not permitted to deem returns from windfarms to be ground returns. Primary returns from wind farms could be blanked off controllers' radar displays leaving just secondary radar information in those areas but individual units are not permitted to develop their own SOPs. Also, unlike objects such as masts, the returns from wind farms can vary depending upon the speed and direction of the wind. Although there is no obligation on controllers to pass Traffic Information (TI) to pilots in receipt of a Basic service, there are duty of care considerations. It is common in Airprox investigations to question why controllers did not pass TI when they had the information on their screens. Unfortunately this is one of those scenarios where controllers find themselves in the position of "damned if they do and damned if they don't".

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