



Newsletter Vol. 2, No. 4. Winter, 2010

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The Importance of Service Bulletins

The manufacturers of the equipment we fly can issue a service bulletin. These are issued generally to either alert us of an issue that may affect airworthiness, or that a design improvement was made in their products they are introducing to the remaining product line. The manufacturers that issue these bulletins range from the aircraft manufacturer themselves, to component manufacturers, such as engine, magneto, or avionics, for example.

Any part that is installed to a type-certificated aircraft, by nature, is required to be approved by the FAA. This approval may come in many forms, but if it is part of the design of the aircraft, it is approved under the type or production certificate held by the producer of that part. Although most engineering is done in-house by the manufacturers, the FAA is typically involved in the part or process approval, but that is again another whole article.

In case of a defect being found in an approved part or process, the first we aircraft owners or technicians hear about it is in the form of a Service Bulletin. The major points that are typically discussed in these bulletins are: Subject (brief synopsis of what), Applicability (what airplanes or parts are affected), Background (more detailed summation of what may have caused the problem, and summary of bulletin goal), Approval (In most cases, the technical aspects of the bulletin being FAA Approved), Compliance (when to perform the inspection / repair / rework or replacement), Man-Hour and Tooling Requirements (how much time it will take, and if there are any special tools or equipment required to perform the required work), Method of Compliance (the actual instructions of what to do), Recordkeeping (how to document the bulletin, and any special paperwork requirements), and Warranty (if the product is applicable to warranty consideration, the method to apply for that warranty).

Quite often, the aircraft owner or operator receives either the bulletin or a notification that a bulletin has been issued. Please do not assume that your technician has already received, read, and complied with any service bulletin on your behalf. Why? Owners will generally get their copy or notification as soon after publication as practical. Technicians and / or FBOs get their copies quarterly at worst, or have availability immediately (internet) if they know the bulletin has been issued. (The worst case scenario mentioned may not be worst case: Although most of these bulletins are free to registered owners of the aircraft affected, any other interested party

must generally subscribe to a service to get these bulletins. If your technician doesn't subscribe, he may not know. That said, a number of the manufacturers do place them in a public section of their websites, if only for a limited amount of time, so the information is generally available.)

OK, so you have received this bulletin in your mail box. What to do with it? Perhaps just stick it on that clipboard with the list of squawks accumulating since the last annual? No, let's find out if this is important!

Now then, reading glasses on:

Subject: Mandatory frammlefitzer inspection on certain Gerwin equipped XS flap transducers. *Well, mandatory tells me who ever wrote this thinks it's kind of important. If it said optional, or suggested, I might not be as concerned, but would read it anyway. And I think my flap transducer is an XS, but don't know if it's a Gerwin or a Homelywell...*

Applicability: All aircraft equipped with XS flap transducers incorporating Gerwin part number 23-4 circuit with serial numbers 4-56001 to 4-59038, inclusive. Also applied to spare parts stock (not installed to aircraft). *OK, where are my log books? Here they are. Hmm., no mention of any work in this area, so I still don't know... I could call my A&P, but if they haven't worked on it, they probably don't know either.*

Background: XS Corporation has determined a probable manufacturing defect on flap transducers produced in August of 1927. This defect can contribute to a false indication of the flap position on PFD (Primary Flight Displays) marketed under the "Kollsman" brand name. The actions described in this service bulletin are intended to inspect the flap transducers for this unsafe condition, and provide instructions to repair any unsafe condition found. *Gee, XS Corporation is really looking out for my safety. Sounds like I'd better find out more!*

Approval: Technical aspects of this bulletin are FAA Approved. An Airworthiness Directive (AD Note) has been requested on the subject matter contained in this bulletin. *Glad they are telling us to do this legally. If they are requesting an AD, must be real serious!*

Compliance: Recommended within 10 flight hours, required before 12 calendar months of date of issuance of this bulletin. *Wait a minute - they want it done in 10 hours, but will give us a year? How serious can this be?*

Man Hour and Tooling: Inspection: Up to 2 hours. If repair is required, add 1 minute. This is based upon a knowledgeable technician equipped with proper tooling. Variations are allowed to compensate for additional equipment not part of original certification. If any complications or additional conditions are found during accomplishment with this service bulletin, call 1-999-876-5432. *Sounds like it will need to go to the shop and at least be inspected to see if a repair is required.*

Method of Compliance: Gain access to the XS flap transducer. This is usually located on the inboard end of the outboard flap in the cruise position (See Service Manual XS-SM for details of disassembly, inspection, reassembly, and rigging). Inspect the data plate on the bottom of the unit for serial number and confirm applicability. If this bulletin is not applicable to unit due to serial number, close affected area and proceed to Recordkeeping. If the serial number is affected, remove the transducer from the aircraft, remove the cover and inspect the circuit board. If the visual Logo reads Homelywell, no action is required; reassemble, reinstall, rig per service manual, and proceed to Recordkeeping. If the visual Logo reads Gerwin, inspect the frammlefitzer for proper orientation per drawing XS-SM-DWG. Correct if necessary, re-torquing the nuts to 100 ft-lbs; reassemble, reinstall, rig per service manual, and proceed to Recordkeeping. *I'm in way over my head. Good thing I have a trusty technician to have look at this. A malfunctioning frammlefitzer is nothing to be messed around with!*

Record Keeping: On all affected units, change serial number on data plate, adding a suffix "A" by metal-stamping in minimum 1/8" high letter. Record method of compliance in aircraft log books. If required, also submit form XS-Form 1. *OK, log entry is easy. What's that form for?*

Warranty: Normal warranty considerations will apply for any parts used in the inspection and repair as called out. Application must be made on form XS-Form1 and include aircraft and owner information, and time in service as indicated on the form. Rework of the XS flap transducer in accordance with these instructions will not extend the normal warranty period past the original 30 days or 5 uses.

Although written tongue-in-cheek, the above scenario may help you in understanding what a service bulletin is. Now, how important is it? Well, if a symptom of failure is a PFD losing information, I'd say it's pretty important. On the other hand, if a failure means the door won't lock properly from the outside, perhaps it can

be delayed or ignored. Notice they will often give you warranty information: If the inspection and / or repair can be paid by the manufacturer, then you really don't have a lot to lose by having it performed. Plus, if they had requested (from the FAA) an AD note, and they get one, chances are pretty good if you have already complied with the manufacturer's bulletin, all it will take to be in compliance with the AD is a log entry.

On occasion, a recommended Service Bulletin can become the subject of an AD note. This may be due to the FAA thinking a subject is more important than the manufacturer, but when the paragraph about an AD being requested is present in a bulletin reading 'recommended', well, I'm not terribly impressed. (A certain Service Bulletin, then AD note, on circuit breaker switches comes to mind...)

Are Service Bulletins mandatory? Lot's of gray area in here folks; the statements you are about to read come with a major disclaimer: Your situation may be different; these are generalizations.

- Part 91 (privately owned & operated) aircraft: No. If the subject matter becomes an AD, or if they are incorporated into an AD, then that answer turns to yes. Other factors may contribute to making a yes out of it, such as the insurance requirements of your aircraft, as well as your technicians own liability insurance. But those fall out of the 'regulatory no'.
- Commercial (for 'hire' aircraft, including but not limited to Part 135): Some times. (I know, lots of help here, eh?) Here it depends on (at least) three things I have identified: Type of component, operations specifications, and punctuation. It is pretty much understood that engines and props need to be overhauled according to manufacturers TBO requirements when carrying people for hire. But, that's not all; most Operations Specifications give a list of the items and associated manuals to be followed in the maintenance of these and possibly other components. Any more, service manuals tell us that service bulletins WILL be issued to supplement the manuals until the manual can be re-written, and quite often, Service Bulletins also include the wording that the bulletin needs to be inserted into the airworthiness limitations section of the maintenance manuals; therefore becoming part of the manuals.

Confused yet? Let me close with this: I was reading an FAR concerning this subject a while back. FAR 135.421(a) has an interesting under-tone. The paper copy I was using for research had a misplaced comma. It was between the word "aircraft" and "engine", and frankly created a bit of an issue. Finally, this was settled by looking at the official copy (in the Federal Register, as published on-line), there was no comma, so no issue.

If you have any question concerning applicability of an AD note or service bulletin, the friendly technicians at AVSTAR will be happy to help you sort out your situation. Just call 253-770-9964, or email to avstarair@att.net.

Summer 2010 Airport Closure

Our home airport, Pierce County—Thun Field (PLU) is getting a major overhaul of the runway this summer. Apparently there are several problems with the existing runway. To name a few, it doesn't conform to FAA standards due to width and radius of the intersecting aprons, as well as it slopes east to west 9 inches. There are a few other places our tax dollars will be spent out here, we'll touch on those in a few minutes.

I attended an informative meeting last week concerning how this will affect us. The nut-shell version is: airport closed for a day of preparation work, then the south 1600 feet closed for tear-out, re-grade, widen and pave of the first 1000 feet (21 days), close the entire runway again to rework the middle (14 days), then the north end will be reworked with the south end open (18 days). After that, the runway will be closed again for a day or so for striping, etc. This work is supposed to happen in the July to September range.

(NONE of this work will lead to any substantial increase in the usability of this airport. If and when 'they' ever decide we need an instrument approach (WAAS), will the 'conformity' rules be the same? Or, will we (taxpayers) have to fork out more \$\$ to re-conform the surface for that?)

Let's think about this, people: If there is going to be almost \$4 million dollars spent to conform the airport, where is the advantage?

- Our runway is north-south; prevailing winds are from the southwest. On landing, (in cross-wind conditions), upwind wing is typically held low, so that 9 inch slope is a benefit.

- The idea of reducing the radius on the aprons and taxiway junctions is not in the advantage of safety (That's right folks, our radius's are too big...)
- Why do we need another 15 feet of width, when with no instrument approach, the type of aircraft that co-exist here already will not change? (*Perhaps to allow cross-wind landing more of a crab approach...!*)

But wait; there's more!

We will also get an emergency backup generator. We already have one here, to power the runway lights and other safety items. As our county airport administrator told me, this one is for important stuff too, like the restaurant (emergency personnel need to eat), the fuel island (in a very abstract way, I can understand this one), the airport office building and a temporary emergency services trailer hook-up (I definitely have no problem with these), but also (get this - I'm really impressed) the 'big' FBO on the airport for use as *an emergency command center*. What? If the airport office building is equipped, plus a spot for an emergency services trailer, why does my competition benefit? (Mr. Administrator later told me emergency aircraft repairs may need to be made. If that's the case, where is the competitive bid process? Sounds to me like a 'buddy deal' so they can carry on 'business as usual' during the power outages that do occur.)

The *only* advantages I see to this whole proposal is the upgrading of airport lighting and tree removal.

What I don't see is a fiscally responsible approach to upgrading the airport that justifies the money spent and potential for lost revenue. For almost 8 weeks (if everything moves on schedule, keep in mind *this is a government project*) the airport will be severely restricted and closed on occasion. Without long term advantages to this program, I believe this to be a gross waste of our tax dollars and time. Let us not make the argument that this can be part of the other Washington's plan to put people back to work; I am well aware construction workers need to make a living, but so do us airport dwellers. There is no question I am pro-airport. However, I am most certainly not for spending money just because "if the FAA spends money here, now, it's another 20 years before the airport can close" (paraphrased from Mr. Administrator's closing remark.)

There is my 2-cents worth; I invite your opinions.

Wake Turbulence (Letters)

As expected, the article of how to communicate with your shop about *Customer furnished parts* in the last issue created a bit of wake turbulence.

In one letter, *Greg* commented it's just not aircraft parts and technicians: "Being in the computer networking business we hope our customers buy computers from us too instead of Best Buy and then ask us to set it up and fix the problems created by their purchasing a machine that does not fit for them."

In another letter, *DM* has this to say: "I wanted to offer some constructive criticism. I can understand you getting angry when something happens that impacts your business negatively. But if you let your anger vent on your customers then those customers may not come back and you really don't want that to happen to your business."

I re-read that article, and don't see any anger in my words. My intent, and I believe result, was to help you (the aircraft owner) in understanding some of the limitations and conditions parts need to conform to, as well as some of the pitfalls customer furnished parts can create. Therefore, I gave reasons for discussing this situation with your technician first, rather than just placing him/her in a dubious position of accepting your parts as the only option.

As that piece was meant to be an introspective look for all (myself included), perhaps *DM* took exception to one or more of the examples; if that was the case, and I offended him or any other readers, you have my sincerest apology. As stated elsewhere, my desire is to make this newsletter interesting and informative.

Tidbits (Just for fun...!)

One letter I received on the customer furnished parts basically said: "You wouldn't take your own steak to a restaurant, would you?" Well, that got me thinking; using the 'find & replace' function, then changing just a few more words netted this gem:

Customer Furnished Steak Policy

Cooking and serving, by THIS RESTAURANT employees, of customer furnished (C/F) STEAKS for customer consumption at THIS RESTAURANT by the customer, is subject to the following limitations:

1. C/F STEAKS will not be allowed if the STEAK(s) or a reasonable substitution is a normal stock item for THIS RESTAURANT.
2. C/F STEAKS must be delivered to THIS RESTAURANT with all butchers documentation, including USDA labeling, refrigeration chain-of-custody statement, etc. No STEAK will be cooked or served without such paperwork.
3. Cooking and serving of C/F STEAKS will be solely at the risk of the customer. If the STEAK becomes burned, over-cooked, over-seasoned, or otherwise inedible during cooking and serving, the customer is responsible for replacement STEAK, as well as any time involved with replacement of the STEAK. If an incorrect or incomplete STEAK is provided by the customer, the customer is responsible for supplying the complete or correct STEAK. Any action taken by THIS RESTAURANT employees to correct the situation will be invoiced at current value for replacement STEAK.
4. If, during the course of normal digestion of the C/F STEAK, it fails to digest satisfactorily due to cow, butcher, or handlers' fault, the customer is responsible for any and all medications relating to the digestion of said STEAK. Any action taken by THIS RESTAURANT employees to correct the situation will be invoiced at current value for replacement STEAK.
5. A charge based on a percentage of the butcher's published list price will be invoiced as a handling charge for all C/F STEAKS. (This charge is exclusively for rent, utilities, wages, and other overhead issues, not for liability issues.) Exception: Customer Furnished complete meals or OTHER RESTAURANT'S food consumed off our premises.

Last Thoughts... Whether you are in Washington State, or elsewhere, you know many states are in the process of pillaging the peasants. I urge you to call your government representative with your 2-cent's worth. Also, this coming weekend is the Northwest Aviation Conference and Trade Show at the Fairgrounds in Puyallup, for details go to: www.washington-aviation.org.

Thank you for reading this issue of our newsletter. I hope you have found it interesting and informative, perhaps humorous. If you have any questions or comments, you can email them to me at avstarair@att.net. If this issue was sent to you by a friend, you may opt in to receive further issues by sending an email to me at avstarair@att.net. If you chose to opt-out of receiving further issues, please email me at avstarair@att.net with the word remove in the subject line.

Gear Green,

Mike (C) Michael E. Thompson and AVSTAR Aircraft of Washington, Inc., 2010

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