



Newsletter Vol. 1, No. 1. Spring 2008

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## Introduction.

Welcome to the first newsletter produced by AVSTAR Aircraft of Washington, Inc. Many of you are probably asking some questions about this, so let's get down to some nuts and bolt, with an occasional rivet thrown in.

**How did I get an invitation to receive this?** We downloaded registration data for the Beech model 33, 35, 36, 55, 56, 58, and 95 from the FAA and Canadian DOT for Montana, Idaho, Washington, Oregon, Northern California, and British Columbia. If your airplane is registered in these areas, you were mailed our invitation. (It is amazing how many were returned undeliverable.) You are welcome to share this newsletter with any of your fellow Beech-nuts; if they choose to opt-in, they may. If you choose not to continue receipt, just send an email to [avstarair@att.net](mailto:avstarair@att.net) with the word remove in the subject line, and you will be deleted from our list

**Why a newsletter from AVSTAR?** Simply and to the point: I feel there are many good information exchanges out there. Naturally, we all know about the American Bonanza Society (*you are a member, aren't you?*), the regional societies, then there are the pages on the internet that have questions, answers, and opinion. All of this is good stuff. However, I feel that sometimes, for space limitations or whatever, the points made and addressed fall short of dealing with the whole issue. That said, there will be no dead horses beaten here. Just more information, hopefully helpful, here.

**Just who is AVSTAR and why do they think they are the experts?** AVSTAR Aircraft of Washington, Inc. was formed in 1995 to fill a void in aircraft maintenance available at our airport (PLU). (Or maybe it was because no one else would hire me...) Another technician and I started this company and gravitated to specializing in Beechcraft piston-powered maintenance. A few years later, I became the whole owner of the company, and continued our focus of performing the best quality maintenance, repair, and alteration available. No, we are not experts - I feel that term limits the potential for growth. We are specialists, continually learning.

My name is Michael Thompson. I have been in aviation since the early 1970's, earning my A&P license and private pilot rating in 1980, and gaining my IA in 1986. Some of you may recall I was a regular contributor to the "World Beechcraft Society Magazine". I will be writing most of the newsletter material, but there will be offerings from others as well. At AVSTAR, you will also meet Janice, the office manager, and Dale, my right hand man. We are also proud of Daniel, who is our apprentice; he recently earned his A license.

**What will the newsletter be about?** Primarily, the needs of the Beechcraft owner, operator, and technician. My philosophy is that whether you (the aircraft owner) like it or not, you need to be involved in the upkeep of your airplane. You are the one responsible for the maintenance of your airplane (FAR 91.403(a)). We will have discussions about the owner's role in aircraft maintenance, choosing a shop, avoiding poor maintenance, project updates, comments, tips, and the list will grow.

## Check your sources.

There are only two definitive sources for the upkeep of your airplane: The FAR's and the Manufacturer. (How's that for opening up a can of worms?) OK, I admit, there is gray area in that statement. Many times, you can read more than one article about a subject, and end up with more than one opinion. Opinions are like fingerprints, everyone has them, and they are all different. When met with differing opinions, the two 'definitive' sources should provide the answer. Just because I write my thoughts for you doesn't mean I am correct; the same as any other source. Conversely, you can not assume any column is incorrect; simply stated, check your sources. I have read many of the internet pages filled with opinion, as well as technical advice from good sources, but find errors occasionally, so I ask you to confirm what you have heard or read before you apply it to your situation.

## Follow instructions.

When maintaining any aircraft, the importance of following instructions is parallel to maintaining safety. We have aircraft through the shop that are either transient or not regular customers. We find some interesting installations on some of these, ranging from non-functional to downright dangerous. Seldom, if ever, does a product gain (FAA) approval for installation without explicit installation instructions. Unfortunately, on the basic airplane, we need to rely upon the manufacturers shop manual. (For those of you that own / have seen the Beech shop manuals, you understand "unfortunately".) These manuals are not as explicit as they could be, but then they would be too large to find anything. This brings me to one of the published columns I look forward to every month. In the ABS magazine, there is a series of photos asking "What's Wrong?" To me, they seem pretty easy to figure out, but most of the items highlighted are the some of the very ones we find continually. This should not be the case. Maintenance personnel and aircraft operators are in need of this information.

We recently had a Bonanza in the shop for a few minor squawks. During the course of our repair, we found several glaring discrepancies with an engine installation recently completed by another shop. The one that comes to mind is heat shield installation. Depending on the year and model of the Bonanza, there may be heat shields in various locations. On most, there is one on the non-cabin heat side muffler. Coincidentally, this means it's on the oil filter side. If the filter or adapter springs a leak, the oil will usually fall on the muffler. If the heat shield is properly oriented, it will direct the oil off the muffler. Shield **UP**, beaded end **AFT**. It is **not** there to keep the muffler from burning paint off the nacelle skin! The earlier 470-powered Bo's use a confusing series of heat shields attached directly to the exhaust collectors (headers). These are there to keep the heat off the engine mounts. They are **not** there to keep the heat from burning paint off the nacelle skin! Yes, we have found them that way... If you don't know, find out. Just because it "came in that way", doesn't mean it's correct. If it doesn't look right, it's probably not.

## Project Update.

Over the course of the last few years, I have been working on a Bonanza restoration and upgrade. There were several columns in the old WBS magazine that charted progress. In brief review, this aircraft was taken apart (undamaged) in the early 1980's, passed through several sets of hands being further disassembled and picked apart. I acquired it in 2003, and have been bringing her back to life. She is an F35 (1955), with many upgrades, including enlarged baggage compartment, D'Shannon windows and tip tanks, IO-470 engine, super scimitar prop, upgraded instrument panel, etc. No, 891JH is not flying yet, but hopes are "soon". At this point, the electrical work is pretty well done, instrument panel filled, fuselage painted, tail on and rigged, and wings recently installed. Virtually every screw and bolt has been turned, many rivets driven. I anticipate flight will be committed this summer, we'll see...

Before:



Wing mating day:



## Spring cleaning.

Winter flying can be flying at its best; the cool air is typically dense and smooth, and the engines and airfoils just love it. Sadly, for many, it also means our aircraft may also need a bit of well deserved attention because the weather just didn't cooperate with our schedules. If you find your bird has been dormant for a while, then there are a few more things to take care of before spring flying season. Condensation in the fuel tanks can be a problem. Even hangared, there can be heating and cooling cycles that can draw moisture into the tanks, so be sure you sump the drains adequately. As you should do after washing the airplane, be sure to lubricate the exposed hinges, bearings and rod ends on the controls and gear doors, and take a grease gun to the exposed landing gear grease fittings. As long as the creeper is out, take a few minutes to confirm the drain holes in the belly skins are open. After a wash or a rain storm, the water can cause CG problems. Check your landing gear struts and tires for proper inflation; and use a little hydraulic fluid on a towel to wipe down the exposed strut section. Under the cowl, check the battery for proper fluid level. Most batteries have a split-ring appearance below the threads, the fluid should be near that point, and confirm all cells even. If one or more is dry, check for evidence of an acid spill, a battery that has discharged can freeze and crack. If the aircraft has been dormant for a long time, consider pre-oiling the engine. This can usually be done by removal of the top spark plugs, confirm mixture "lean" and throttle "closed", then motor the engine with the starter until you see the oil pressure gauge move. After cranking for 45 seconds, if no pressure is noted, let the starter cool for about five minutes prior to trying again. Then the plugs are reinstalled and torqued, harness secured. Start the engine and let it warm up per standard procedure, and perform your usual pre-flight run-up. Then return the airplane to parking. This is the time to perform your "normal" pre-flight inspection.

## **Tidbits.**

Our website, [www.avstarair.com](http://www.avstarair.com), has been a great tool to show off some of our projects, as well as some of our customers and their comments. We are currently re-designing this website to make it more user friendly, to both you and us. We hope to have the 'new version' up and running within the next couple of months, so we invite your input on how we can improve it.

Thank you for reading this issue of our newsletter. I hope you have found it interesting and informative. If you have any questions or comments, you can email them to me at [avstarair@att.net](mailto:avstarair@att.net). We will add a letters section in the next issue - you may find yourself in print. 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](mailto:avstarair@att.net). If you chose to opt-out of receiving further issues, please email me at [avstarair@att.net](mailto:avstarair@att.net) with the word remove in the subject line.

Gear Green,

*Mike*

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