

the

AEROSTAR LOG

THE MAGAZINE OF THE AEROSTAR OWNERS ASSOCIATION

SPRING 2015

VOLUME 44 / ISSUE 1



Charlie Tripp and his Aerostar, **N221CA**.

AOA CALENDAR

AOA FALL CONVENTION

September 30 - October 4, 2015

Nashville, TN

22 Eric Lipper: 1 Year with AOA

30 Upgrades from EZ Glide

34 AOA Invades Australia

36 Joel Champlin: Forum Tips

Table Of Contents

department articles

feature articles



President's Page

Bob Bliss has tips for travelers who are visiting Nashville.



New Blood

New fans and fresh faces from around the globe.



Sustaining Members

We give thanks to our Platinum, Silver, and Bronze tier members.



Insider

Get to know Charlie Tripp, Thomas Bienz, and Nico Biever.



Aerostar Trivia

Test your Aerostar knowledge with Lester Kyle.



iMaintenance

Joel Champlin lists the steps necessary to start changing your own oil.



One Year Later

Eric Lipper recounts his past year of Aerostar ownership.



EZ Glide

Joel Stout talks about affordable upgrades.



U.S. Members Visit Austrailia

AOA Members fly "Down Under."



News from the Forum

Joel Champlin highlights the benefits of the forum.



Aerostar Turbo Issues

Jack Brush explains turbo anatomy.

Contributors

Publisher

SAPIEN Brand Experience
2020 East Eleventh Street
Tulsa, OK 74104
918-928-8928
SapienBrands.com

Editor

Burdella Bacon
2608 West Kenosha, #704
Broken Arrow, OK 74012
918-258-2346

Directors

R. Becker J. Hudgin
T. Bienz K. Hutter
R. Bliss B. Peters
J. Champlin R. Schmidt
G. Evans

Writers

L. Badger
T. Bienz
N. Biever
B. Bliss
J. Brush
J. Champlin
L. Kyle
E. Lipper
J. Stout
C. Tripp

Officers

President

Robert Bliss
New York, NY
917-797-3404
bob@windmillcapital.com

Vice President

Karl Hutter
Reno, NV
310-989-8084
khutter@clickbond.com

Secretary / Treasurer

Joel Champlin
Enid, OK
580-278-9267
joel@champlin.com

Executive Director

Ken Bacon
2608 West Kenosha, #704
Broken Arrow, OK 74012
918-258-2346
918-258-2346 (fax)
918-625-3161 (holline)
aoa2007@cox.net

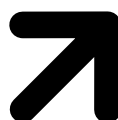
Disclaimer

The comments, articles, stories, letters and information contained in this magazine are the personal opinions of the writers and are not - nor are they to be construed as - official policy or commentary of the Aerostar Owners Association. Neither the Association nor it's officers, directors or the magazine editor or publisher give any official sanction to any articles, stories, letters and information contained herein. The pilot in command is responsible for the safe and proper operation of his/her aircraft, and it is the responsibility of the pilot in command to operate that aircraft in compliance with that aircraft's pilot's operating handbook and other official manuals and directives.

WWW.AEROSTAR-OWNERS.COM

PRESIDENT'S PAGE

"We should be making those flights, taking those trips, seeing our friends, and using our Aerostars to full advantage."



As of this late-April writing, according to AirNav, the average Avgas price is \$4.75 across 4133 FBO's in the US. If you're fortunate to fly through one of the low-tax states, fuel can be had for well under \$4 per gallon. When Aerostars were last produced in 1985, Avgas was selling for around \$1.80 per gallon, according to the US Energy Information Administration. If the current level of our fuel seems high, consider at that time a first-class stamp cost \$0.22, a gallon of milk \$2.22, and the median price of a house was \$111,000. And the Dow Jones Index, now at 18,000, was only \$1,500! ¶ Why do I bring this up? Avgas, compared to the 1980's, is no more expensive than other items in our everyday lives. And in fact, it may go lower, or at least stay at the recent levels we've been enjoying. While we lament maintenance costs, which seem to have gone exponential, fuel, which keeps our birds moving, has not increased (at least in the US) relative to inflation. I would argue that it has increased less than other major items we purchase. My point is that we should be making those flights, taking those trips, seeing our friends, and using our Aerostars to full advantage. They are amazing machines. Summer flying weather is upon us – take those flights. Your plane will be happier the more it flies, and so will you. In the United States we have the cheapest and most available fuel, the most free and economical airspace, and the best destinations and things to do. We also have the greatest distances between our borders – all reasons to be taking to the skies in our Aerostars! ¶ While we are in our planes, what better destination than Nashville, and the 2015 Aerostar Safety and Maintenance Convention. Mark your calendars for September 30 – October 4. Meet up with friends old and new, and continue the journey of learning how to most safely and effectively

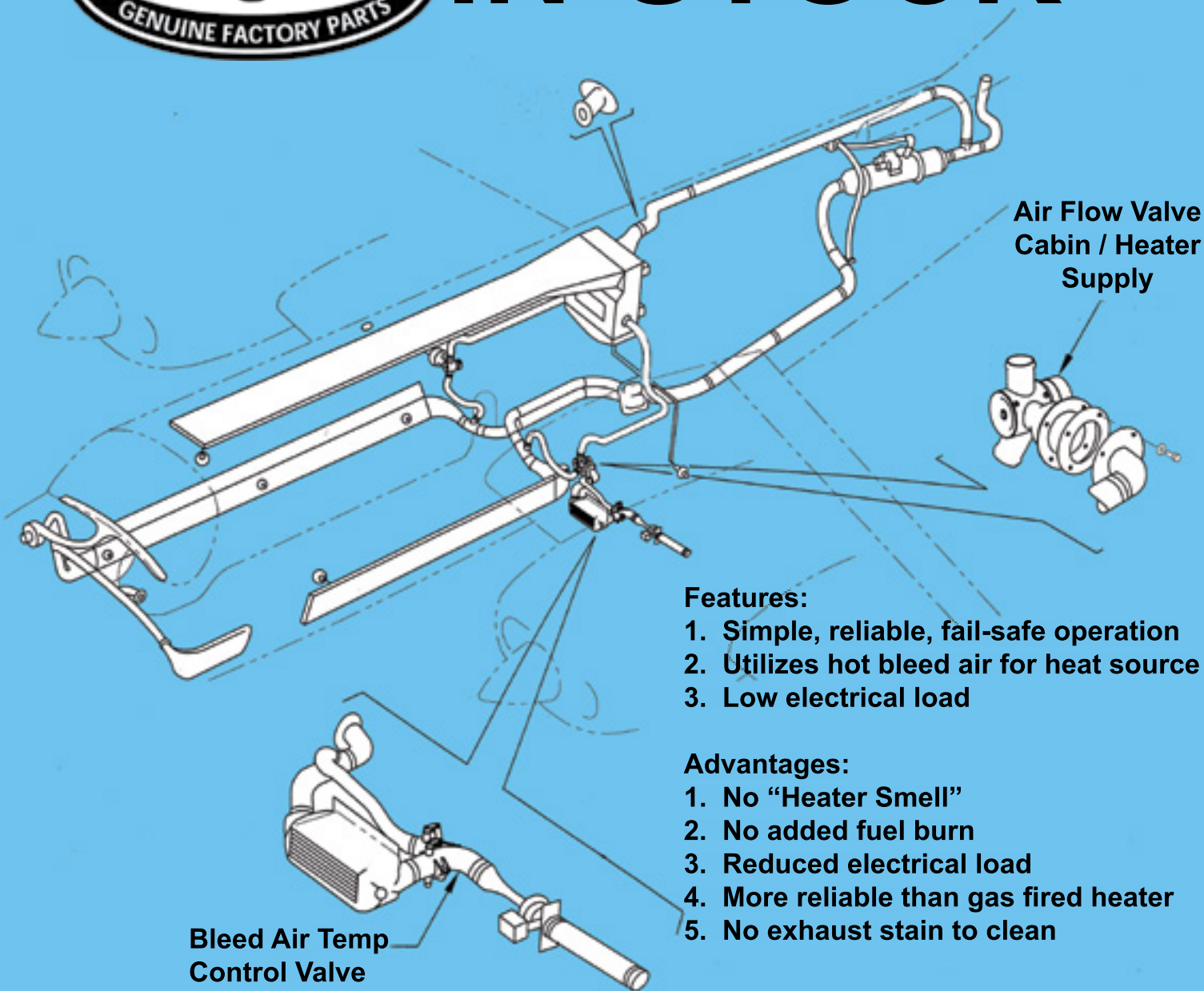
operate the world's best piston twin. And did I mention it's in Nashville? Some fun facts about Nashville you may not know:

- Nashville's Centennial Park is home to the only exact replica of the Greek Parthenon. Just standing in the middle of the park, there it is. Inside there is a statue of Athena Parthenos standing at 42-feet-tall. She is the largest indoor statue in the Western Hemisphere. Nothing says Nashville like Greek mythology.
- The AT&T Tower is the largest building in Tennessee and since its highest points resemble bat ears, it's been nicknamed the "Batman building."
- The Grand Ole Opry had a special guest for its opening show at the new Opry House in 1974: President Richard Nixon. He entertained everyone by playing a presidential appropriate tune of "God Bless America" on the piano.
- The Hermitage, Home of President Andrew Jackson, boasts a driveway in the shape of a guitar. Legend has it that the driveway was so shaped to please his daughter-in-law Emily. That tree-lined guitar-shaped driveway's been there since 1837. Talk about vintage.
- On the Friday night of the convention, our group will be taking a paddleboat dinner cruise on the General Jackson. Entertainment will be our own Ken Bacon, who will be belting out Elvis tunes. ¶ Ok, maybe the last part about Ken wasn't true. But you won't want to miss a great long weekend of learning, gurus, and friends – all in the city of Nashville. More details will follow. We hope to see everyone there!

Bob Bliss // N700BZ



IN-STOCK



Features:

1. Simple, reliable, fail-safe operation
2. Utilizes hot bleed air for heat source
3. Low electrical load

Advantages:

1. No "Heater Smell"
2. No added fuel burn
3. Reduced electrical load
4. More reliable than gas fired heater
5. No exhaust stain to clean

OPTION # 276

AUXILIARY CABIN HEAT SYSTEM

The Aerostar's cabin combustion heater system is quite complex. A simple electrical glitch or component failure could leave you without heat, in a dangerous situation.

Aerostar has developed a new Auxiliary Cabin Heat System that provides a simple reliable solution to this problem. This new system allows you to regulate how much hot bleed air will bypass the cabin bleed air cooler and then routes this hot air directly into the cabin heater ducts. This new Aux Heat System is so simple and reliable we recommend you use it as your primary cabin heat source and only use the existing gas fired heater when necessary such as for winter ground operations.

Introductory pricing is now in effect.

For more information about this affordable upgrade, Call us Today! 1 800-442-4242



new blood

INCOMING AEROSTAR ASSOCIATION MEMBERS

- | | | |
|--|---|---|
| 1 Steve Adams
Mesa, AZ | 8 Gerhard, III & Shannon Maale
Dallas, TX
N300MP | 15 Glen Rolfe & Vincent Merten
El Centro, CA |
| 2 Collis Chandler, III
Denver, CO | 9 Sean Mickler
Friendswood, TX
N41HA | 16 Michael & Sheri Sorensen
Bluffdale, UT
N914MB |
| 3 Peter & Sandy Dalton
Orange Park, FL
N892P - Barron | 10 William Moore
Jackson, TN
N6894S | 17 Scott & Susannah Talbot
Aubrey, TX |
| 4 Bo & Tara Duggan
Pewaukee, WI | 11 Jason Morford
Flushing, MI
N721DC | 18 Glen & Ronda Taylor
Plymouth, MA
N901RG |
| 5 Richard & Marites Frick
Nekoma, KS
N526SC | 12 William Ogden
Greenwich, CT | 19 Mark & Lilly Weidhaas
Temecula, CA
N71BW |
| 6 Scott Gentile
Weatogue, CT
N122PC | 13 John Plavan, Jr
San Diego, CA | 20 Bruce & Debra Witkop
Selinsgrove, PA
N8384J |
| 7 Charles Heinrich
Lockport, NY | 14 Michael Rapoport
Sandpoint, ID | |

THANK YOU!

SUSTAINING MEMBERS

PLATINUM members are the founding members of the program. These members began their support the first year of the Sustaining Member Program and have continued to maintain that support every year.

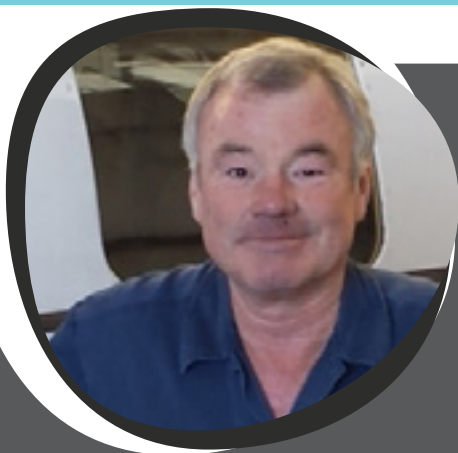
Ken Bacon	Broken Arrow, OK	N35LL	Walt Marrs	Diamond Bar, CA	N701WM
Thomas Bienz	Laramie, WY	N767TB	Jacob Mast	Tierra Verde, FL	N91VK
Robert Bliss	New York, NY	N700BZ	Nasar Nallamothu	Springfield, IL	N114VF
John Brush	Colorado Springs, CO	N21D	George Sampas	New York, NY	N111IU
Joel E. Champlin	Enid, OK	N88CX	Uday Saraiya	Las Vegas, NV	N700GP
Gary Evans	The Woodlands, TX	N702PG	Eric Sincoff	Fenton, MO	N44XX
James Glidewell	Newport Beach, CA	N701JG	Unlisted		
Jim Hudgin	Lewisburg, TN	N222KD	Unlisted		
Karl Hutter	Reno, NV	N90500			

SILVER members are those members who have shown their support two or more years.

Larry Baum	Ithaca, NY	N60LM	Paul Maritz	Mercer Island, WA	N824MZ
Robert Becker	Grand Rapids, MI	N66GC	Lloyd Martin	Jamesville, NY	N6077T
Herme Bloom	Wilmington, DE	N601HB	Lynn Massingale	Knoxville, TN	N6907A
H. Whitney Boggs	Shreveport, LA	N44HW	Dave Mussallem	Pitt Meadows, BC, CAN	C-FAOY
Mike Bollenbacher	Toledo, OH	N338N	Bruce Peters	Wichita, KS	N526SC
Rick Brighton	Park City, UT	N90339	Graham Ponsford	Chichester, UK	N69LP
Ronald Cannoles	Las Vegas, NV	N222AY	Blake Reed	El Centro, CA	
Glenn Chong	Red Deer, AB, CAN	C-GPCZ	Isaac Regier Jr	Fairview, OK	N555BW
Shawn Claggett	Nicholasville, KY	N21T	Roland Richter	Düsseldorf, Germany	N141CA
Larry Clawson Jr.	Tyngsboro, MA	N77XC	John Rubi	Dallas, TX	N472BH
Ron Cox	Vero Beach, FL		Morton Saunders	Gladwyne, PA	N94DF
Moton Crockett	Austin, TX		Richard Schmidt	Fort Myers, FL	N601P
Fred Eisert	Yellow Springs, OH	N680FP	Robert Schwarzmann	Vienna, VA	N10AB
Bruce Evans	Ponca City, OK	N600CC	William Scott, V	Marshall, VA	N1939Y - Mooney
H. Flesher	Fredricksburg, TX	N57CB	Tom Shaffer	Somerset, PA	N55RR
Robert C. Foster	Poplar Grove, IL		Grant Skomorowski	Saskatoon, SK, CAN	C-GBQP
Bill Frank	Lincoln City, OR	N889AC	Charles Southall	Naples, FL	N826D
Patrik Gisel	Erlenbach, Switzerland	HB-LIN	Michael Stanton-Hicks	Chardon, OH	N1260Z
Jorg Gottlieb	Kirchheim, Germany	D-IXKJ	David Strain	Longwood, FL	N3643T
Lyndon Holmes	North Andover, MA	N66CG	Ronald Turner	Tulsa, OK	N88CM
Tony Ireland	Mittagong, Austrailia	VH-UYV	Norberto Vinelli	Beccar, BA, Argentina	LV-OAR & LV-LZW
John Kagan	Fort Myers, FL	N6903R	David Weilert	Catoosa, OK	N981MC
Simon Katz	Indianapolis, IN		Ron Westman	Sarasota, FL	N910A
Bill Lawson	Somerset , WI	N77FP	Gary Worcester	Oklahoma City, OK	N54AL
Eric Lipper	Houston, TX	N702RJ	Reese Zantop	Naples, FL	N7RZ
Eric Lopez	Palm Harbor, FL	N700WG	Hank Zbierski	Lake Geneva, WI	
Jeff Lowe	Boissier City, LA	N83WD			

BRONZE members are those who have shown their support for one year.

Ralph Buerklin	Wackersberg, Germany	D-IDEE	Steven & Lisa Lefferts	Rockville, MD	N321CG
Thomas Cooke	Cleveland, OH	N434FM	Ricardo Meza	Miami, FL	
Dennis Dunlap	Hendersonville, NC	N7411S	Richard Ogilvie	Victoria, Austrailia	VH-HFY
Michael Grossmann	North Canton, OH	N79MG	Geoffrey Read	Johannesburg, So. Africa	ZS-MKX
Donald Johnson	Munford, AL	N198MS	Blake Stevenson	Stonington, CT	N800AA
Danny Kamal	Fayetteville, GA	N830DH	Joel Stout	Elizabethtown, PA	
Lester Kyle	Vero Beach, FL		John Trefethen	Napa, CA	N6078M



LOG INSIDER

charlietripp

1. I live in Brownsville, Tennessee. **2. My Aerostar is a 1977 601P/700.** 3. I've been flying for 29 years, over 2000 hours. **4. I've been flying an Aerostar for 8 years, over 300 hours.** 5. I use my Aerostar for business. **6. Most of my Aerostar trips consist of me and my wife, Judy, and sometimes two other passengers.** 7. My scariest thing in an Aerostar was after an exhaustive day training with Lester Kyle at Vero Beach. I took off after a long wait in line with the electric A/C on. I called tower to say I was returning with both alternators out. I was cleared to land. I shed all electrical loads except radio & transponder. In short final tower called for a go around! Did the routine (mixture rich, props forward, full power & gear up). Duh! Gear was up! I called tower back and said thank you. **8. The best flying lesson learned was shortly after getting a pilots license I was coming back from a trip with my wife and daughters. We flew into lowering clouds; my wife saw a small country airport through a hole in the clouds and demanded we land. She told me she would not fly again until I was instrument rated.** 9. What I learned about flying the hard way: be very respectful of thunderstorms. I hope I never get in another one. **10. Have you ever had an engine-out while flying the Aerostar? See "scariest thing" above.** 11. My most memorable flight was flying from Tennessee to Reno NV in the middle of the summer. Over the mountains at 16000 I was barely under the cloud deck. I was dodging rain shafts and watching ground to cloud lighting in some of those rain shafts. **12. The next upgrade/instrumentation/mod I will get will be to comply with ADS-B requirements and hopefully winglets at some point.** 13. I do not attend AOA conventions because our business demands our full attention and time October through December. Hopefully I can attend a convention soon. **14. When I'm not flying my Aerostar, my other interests are maintaining our house built in 1825 and working on the Aerostar.**



tripp's 601p/700

LOG INSIDER

thomasbienz



1. I live in Laramie, WY. **2. My Aerostar is a 601P/700.** 3. I've been flying for 13 years, 2000 hours. **4. I've been flying an Aerostar for 8 years, 850 hours.** 5. I use my Aerostar for business and pleasure. **6. Most of my Aerostar trips consist of me and no passengers.** 7. My scariest experience in an Aerostar was being shown how well the Aerostar can do a barrel roll during my initial introduction to the plane with no advance notification, to demonstrate its remarkable roll rate. **8. The best flying lesson I learned was being shown how quickly an accelerated stall can sneak up on you when flying the Aerostar.** 9. What I learned about flying the hard way was how quickly ice can ruin your day. While flying home from Seattle in my Cessna T210, ice rapidly made climbing impossible and visibility out the front was nil. I made sure the Aerostar has FIKI and I use that capability often. In my opinion, the Aerostar handles icing well, and when combined with weather radar, XM weather, and well-oiled boots, it makes an outstanding weather penetrator. **10. Have you ever had an engine-out while flying the Aerostar? What happened? Yes. The left engine wastegate control arm fractured just as I rotated. I was relatively light and alone, so the plane performed quite well. After pulling the gear, it climbed relatively well. I notified the tower that I was coming back ASAP and then tried really leaning out the engine. I got partial power back for the landing.** 11. My most memorable flight from Fairbanks to Anchorage. Why? Denali in all its glory. Flying close-formation with another Aerostar wasn't bad either. **12. The next upgrade/instrumentation/mod I will get will be: I'm pretty much set, but perhaps AeroLED lights.** 13. I attend AOA conventions because I enjoy visiting with the folks who enjoy owning and operating these planes; not only for their fund of knowledge about flying in general and the Aerostar, but also because of the wide variety of interests that the attendees have, from which I can always learn a great deal about any number of topics. Of course, the maintenance seminars are key. **14. When I'm not flying my Aerostar my other interests are flying my Husky to beaches, mountain meadows and glaciers. Backpacking, cycling, skiing, and riding our horses (and doing all these things with my wife and three children). Of course my primary time commitment is to my practice as an orthopedic surgeon (which also causes me to do at least 1/2 of my flying).**

bienz's 601p/700





LOG INSIDER

nicobiever

1. I live in Luxembourg (Europe). **2. My Aerostar is a 602P/Superstar 680.** 3. I've been flying for 19 years and 1800 hours. **4. I've been flying an Aerostar for 12 years and about 1100 hours.** 5. I use my Aerostar for business and pleasure but mostly for pleasure. **6. Most of my Aerostar trips consist of me and 2 passengers.** 7. My scariest experience in an Aerostar was unforeseen icing with the kids on board. I made a 180 and was out within minutes. Explaining this to ATC took more time. **8. The best flying lesson I learned was, "Better you are on the ground and wish to be in the air than being in the air and wishing to be on the ground again."** 9. What I learned about flying the hard way was during IFR training. **10. Have you ever had an engine-out while flying the Aerostar? What happened? Yes. It was at FL180 on an IFR departure. I returned back to my departing airport on one engine. It was a "non-event" for me, but not so for the authorities.** 11. My most memorable flight was during an emergency landing in my Cessna 140 (1947) in a field after an engine break-up. Why? It was perfect. **12. The next upgrade/instrumentation/mod I will get will maybe be a Garmin GTN750.** 13. I've never attended an AOA conventions because I'm too busy to take the time for an Atlantic crossing; maybe later. **14. When I'm not flying my Aerostar my other interests are skiing and diving.**



biever's 602p/superstar680



The Aerostar Service Center of the Northeast USA



Celebrating our 29th Anniversary! 1986-2015

→ PRE-PURCHASE INSPECTIONS
→ 50/100 HR ANNUAL INSPECTIONS

→ MODIFICATIONS / UPGRADES
→ ALTERATIONS / REPAIRS

We Can Assist With or Arrange Full Avionics Upgrades.

Interior Refurbishment or Total Repainting.

We Are Here For All of Your Needs.

Please Call With Any Questions: 203.790.5226

COME TRY SERVICE WITH A DIFFERENCE!

And meet the **AOA Maintenance** Tape Originators

Master Aviation Inc. 81 Kenosia Avenue Danbury, CT 06910 (DXR)

PHONE 203.790.5226

FAX 203.790.8250

EMAIL AEROSTAR@SNET.net

Easy to find us, 270° radial off London Heathrow and 3470 miles 

AEROSTAR

with Lester Kyle

1. If the auxiliary hydraulic pump light continues to annunciate "on" during flight, what could this mean?
2. How can you check the hydraulic accumulator pressure while sitting in the cockpit?
3. What is the purpose of doing the four-corner check to the nose wheel steering switch?
4. What could be taking place if one engine fuel flow suddenly went from 6-8 gallons higher than it was set?
5. Why should you abort the takeoff if a moderate shimmy begins with the nose wheel?
6. After turning the master switch on, you push the voltmeter button and only see 22 volts, what could this mean?
7. If you had a battery that was completely dead, and you decided to go with an APU start, how can you make sure the battery is on line prior to departure?
8. If an alternator fail light comes on in flight, is there anything the pilot can do to fix the problem?
9. What causes the EGT to rise slightly when doing your magneto check?
10. If you have fluid coming out of the small tube on the bottom of the aircraft, what could this be?

5. It could be serious like a broken collar or sheared bolt. Sorry this is just not enough energy to turn the big 540 lb coming for a start. You can get an assist start, but the best bet is to slow-charge the battery before going.

6. Yes, if it was the over voltage that took it offline, turning the alternator switch off and back on will fix it.

7. The incomplete combustion is burning partially in the exhaust system.

8. Most likely someone read the fluid level with the system under pressure, then added fluid because under this condition it will read low. That little tube is for overfilling.

1. Something is not normal in the hydraulic system, internal, external leak or perhaps a dirty regulator.

2. With the right engine not running, and power off to the auxiliary pump, cycle flaps up and down until pressure needle hesitates, then quickly falls to zero. Wherever that quick fall occurred is where your charge is (should be 500 psi).

3. You are trying to detect a short that may be present which could cause it to be hot in flight, cocking the nose wheel in the well if touched.

4. Very good chance a fuel injector line has broken. This is a somewhat common occurrence and can also be a fire risk. Put the mixtures forward, power back some to keep the exhaust stacks as cool as possible with a good forward airspeed to a close airport for landing.



iMAINTENANCE

OIL CHANGING PROCEDURES

By: Joel Champlin



So you have your hangar laid out and you are ready to do something. How about learning to change your oil? It is not that hard, you learn about the airplane and you save money. All good things, right? Once you get the hang of it, you can do it in about 4 hours. Be sure to talk to your trusted, certified mechanic about what you want to do and ask for his or her advice, especially the first time.

NCE



<div>By the way, the capitalization does matter on these Internet addresses. Hey, I didn't invent the Internet. </div>

**
**

**Talk to Al Gore. **

If you have trouble downloading, just send me an email or Personal Message (PM) over the forum and I will be happy to send it to you. Please feel free to modify it for your needs. Then print it out and put it on the wall or back of a cabinet door for easy reference. I use the checklist at the end of the article. It is also available for download at:



<http://www.aerostar-owners.com/Documents/OilChange.docx>

Even if you are not interested in changing your own oil, you might want to look it over. When I have Don and Mike, my local mechanics, change my oil, I ask them to follow the list. They are glad to have it because most people just want the cheapest, quickest oil change. In addition to the normal tools previously mentioned, there are some special tools and supplies you will need.

TOOLS

- Special oil filter torque wrench or 1 inch boxed end wrench to remove the oil filter (Do not use a Crescent wrench).
- A tool to cut open oil filter such as those from Tempest or Airwolf.
- Some buckets to catch the old oil. I use two five gallon solvent buckets. Some people like used plastic detergent containers.
- Two Saf-Air Aviation quick drains (model P-5000 ½ inch NPT for Lycoming). There are other brands. Install with included metal gasket and high temp thread sealant.
- Two sections of 3/8 inch inside diameter clear hose about two feet long each for attaching to the drain plugs. Plus a large baggie to store in because they get pretty goopy.
- Two oil mats to go under each engine. POR (Pile O' Rags) can work too.
- Two oil funnels.

SUPPLIES

- Oil, of course. Whatever brand and weight you prefer. Plus CamGuard or other additive you might use.
- Two Filters - Champion oil filter CG48110-1 or Tempest AA48110-2.
- Blackstone Lab test kit, if you use them. The kits are free at www.blackstone-labs.com but the test costs \$25 per sample.
- Package of baby diapers. I will explain in a bit.
- Dow DC-4 for the oil filter gasket.
- Berryman's or similar carb cleaner.
- High temperature nickel anti-seize in a spray can. Loctite no longer makes it but, if you Amazon or Google "aerosol nickel anti-seize", you will find several replacements.
- Small zip ties. You should have a variety of good quality zip ties around anyway.
- A package of 3/8 inch vinyl end caps to go over the quick drain nipple.

1



2



3



Reviewing the Oil Change Procedure list, you might have some questions. The first is what oil to use. Opinions vary and they tend to be strong. I break it down into several steps.

Straight Weight Or Multi Weight?

If you fly where the temperature varies little, such as Florida, then feel free to use a single weight oil like W100. If you might start up in the desert at 90°F one afternoon and start up in the mountains at 30°F the next morning, you should consider a multi-weight.

Brand Choice?

The two most popular are Aero-shell and Phillips. I use Aero-shell 15W-50. Many people like Phillips XC 20W-50.

Additive Or No Additive?

CamGuard is the most popular additive for aircraft. Mike Busch (Savvy Aviator) and The Aviation

Consumer report less corrosion with it. I am not going to debate one way or the other here. Aero-shell Plus and 15W-50 already have an additive, so it is probably less important when using them. I put one pint of CamGuard in at each oil change, because occasionally, I go for weeks without flying. If you fly very regularly, you might skip it. Never use an additive during engine break-in.

New Engine Or Cylinders?

Follow the instructions of whom-ever installed your new engine or cylinders. In fact, you should talk to your certified, trusted mechanic whenever making decisions about maintenance and procedures – even what oil to use. Lycoming Service Instruction 1014 tries to provide guidance, but it is a little hard to follow.

Should You Test Your Oil?

I do, but lots of people don't. If you do, use one testing company exclusively so you have a consistent record. ¶ I use Blackstone. They don't get panicky if something seems off one time. To get meaningful trend data, it is helpful to change your oil at nearly the same interval each time. ¶ While we are on the subject of intervals, you might ask "How often should I change my oil?" With modern oils it is less about the oil breaking down and more about the oil

1. AeroShell 15W-50 Engine Oil
2. Phillips SAE 20W-50
3. CamGuard Oil Additive

getting dirty. Carbon, dirt, etc. build up and cause wear. This is especially true with turbochargers. I have a 601P, so I start thinking about an oil change at 25 hours with the goal to have it changed by 35 hours. If I had a 600, I might let that go to 35 to 50 hours. Again, talk to your mechanic or call one the awesome Aerostar Gurus.

Now, You Are Ready To Start.

You have everything on hand. It is time to start your engines. Run them enough to warm everything up. This allows the oil to flow out much better. Shut down, put the plane in the hanger and remove the cowlings. Be careful with the CamLoc fasteners since damage accumulates over time. The cowlings are hot so use some mechanic's gloves. Be careful with the cowlings as they are easily damaged and a pain to repair. Be aware of the vents and tubes underneath and in the back. Have your mechanic show you the best way to remove and install. ¶ Look the cowlings over for oil and fuel staining. They can give you an idea where any leaks are. Fuel staining looks blue, but can look greenish when mixed with oil. Whenever, wherever you see blue or green staining, you should have your mechanic look it over. Now, set the cowls aside, laying them down so the wind or prop wash cannot blow them over. ¶ Lay down an oil mat under each engine. Hook up your clear 3/8

inch tubing to your quick drain and put the other end in a bucket or other container. I use the 5 gallon containers solvent comes in. Be sure to zip tie the tube to the quick drain nipple. As the hot oil heats the tubing, it will try to slip off and make a mess. How do I know this you might ask? ¶ Have your sample containers ready and labeled. Start the flow of oil and take a sample mid-stream. Let the engine drain until you are ready to start putting oil back in. ¶ Clean your turbo charger wastegate actuator filter and breather screens at least every other oil change. Check for any debris and clean in the parts washer. As with any work, pay attention to how things come out and are assembled. The wastegate actuator filter has directional flow and the parts need to be assembled correctly. Take photographs of everything to help your memory. ¶ It is helpful to use red plastic caps and plugs when removing any oil line. Your mechanic may be willing to give you an assortment. AN4 and AN6 are the most common. Drain the filter of oil before you go to the parts washer. It will help your solvent last longer. ¶ Now get a good flashlight and look the entire engine over top to bottom, front to back. Write down anything you see. There are several items on the Oil Change List. Have your mechanic show you what each item is and what you should be looking for. Even if you have done this before, this is a good time to have a qualified mechanic look things over. Look for oil leaks before you remove the



4



5



6

4. High temperature nickel anti-seize in a spray can
5. Tempest Oil Filter
6. Champion Oil Filter

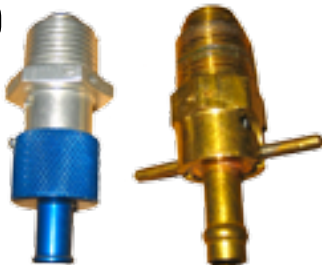
7



8



9



10



7. Red Plastic Caps
8. Dow DC-4
9. Quick Drains
10. Vinyl End Caps

oil filter. ¶ The oil is draining and the engine is cooling. Use this time to check the brake and hydraulic reservoirs. The main hydraulic reservoir is behind the baggage compartment. It should be checked with pressure at zero and the flaps all the way up. It is a good time to check brakes, tire pressures, clean and lube tracks, hinges, etc.

Now, About Those Diapers.

Open one up and slip it under the oil filter. Take a one inch wrench or special oil filter wrench and quickly remove the oil filter. Try to keep the leaking oil in the diaper and turn the open end up when it comes loose. Drain as much oil as you can in a bucket before you cut the filter open. ¶ Should you have any trouble removing the filter, stop and ask your mechanic to help. Some people poke a hole in the filter while it is still attached to let more oil drain out. I find it just makes a bigger mess. Don't forget to remove the diaper. Hopefully, you didn't make a big mess. ¶ Use the oil filter cutter to remove the inner filter. I do this at the parts washer. Now use a large, snap-blade utility knife to cut out the filter paper. Be very careful as it is easy to slip and cut yourself. Unfold the filter media and look for any debris, especially metal. If you find any, you should take it to your mechanic. ¶ Label your new filters with date, engine side, and Hobbs time. Put a little Dow DC-4 on the gasket. Some people use oil, but DC-4 will make removal easier next time. Install the new filter and safety wire. You need to torque it properly. Too little and it will leak. Too much and you will

have a hard time removing. 17 foot pounds is about right. Again, your mechanic can show you how to torque it properly and safety wire. ¶ Now is a good time to remove the drain tubes, close the quick drain and zip tie a vinyl cap on the nipple to catch any little drops. Jack Ditmars makes his own cap with a one inch long piece of 3/8 inch inside diameter clear tubing. Put a short 3/8 inch bolt in one end and use a small hose clamp to seal up the end. ¶ Double check the quick drain is closed. Using a funnel, add oil to the level you desire. Some people feel that if you add 12 quarts, three just get pumped overboard. I do not have a strong opinion one way or the other. I add ten quarts because some will end up in the filter and other lines. I use nine quarts as a minimum on the dipstick. ¶ Check the turbos, tailpipes, wastegates, etc. for movement and alignment. You will hear the term "rigging". It is a general term describing how a control system is setup and aligned. It is very important in Aerostars with turbochargers. You are not adjusting anything, just looking for problems and freedom of movement. ¶ Spray some Ber-rymans, Mouse Milk Oil or other penetrating solvent on the turbo wastegate and other bearings. Be sure to wear eye protection. Grab the two wastegate arms and exercise them at the same time to clear out any debris. They should move freely but maybe squeak a little. Hit the other bearings with LPS or other lubricant. When clean, apply aerosol high temperature anti-seize to wastegate bearings only. Some people use Mouse Milk Oil on the wastegate bearings, but with an ignition tem-



perature under 1,000°F, it is gone before you finish your first run-up.

¶ Clean the cowlings inside and out. Install the top cowling, pull the plane out of the hanger and start up. Watch for the oil pressure to come up. It is a good idea to have someone watching for oil leaks. Never run your engine without something holding the nose bowl in place. It will rub on the spinner plate and get ruined. Some mechanics like to use safety wire to hold it in place for the run-up to save time. I use the top cowling. Either way works. ¶ Remove the cowling and, using a flashlight, check for oil leaks. If it is bright outside, you will need to pull the aircraft into the hanger where you

can see. If you find any leaks, you can try to fix them or have your mechanic look it over. When all is good and you run-up with no leaks, add the bottom cowling. Be careful with the vents and drains in the back. ¶ At this point, I reset to 25 hours a schedule on my Garmin GNS430W called Oil Change. Then I properly dispose of the used oil. Most airports have a big tank or barrel for such disposal. You may need to bring your own funnel and rags. ¶ The last item is to add a logbook entry to both engines stating exactly what you did. A sample logbook entry might be something like the following:

"Left Engine - 10/05/2011
Hobbs 3308 SMOH 93 Changed oil and filter. Cut open filter and inspect. No debris found. Serviced with 10 quarts AeroShell 15w 50. Cleaned turbo wastegate actuator filter. Cleaned oil breather filter. Inspected fuel pump and lines for leaks and stains. None found. Checked turbo mounts for looseness & inspected exhaust system. Lubricated turbo wastegate linkage. Ran engine and checked for leaks. No leaks found."

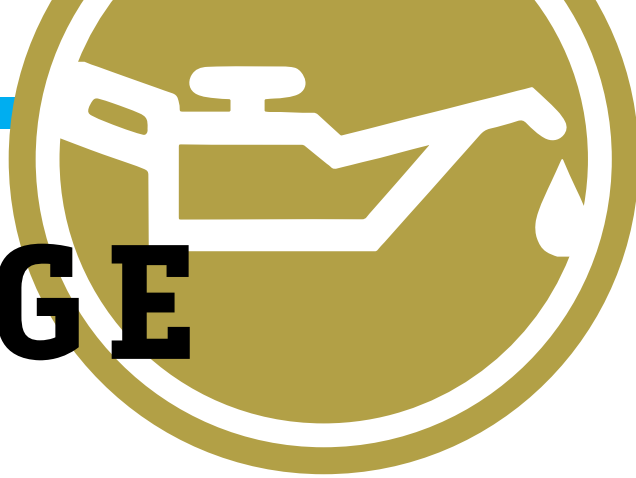
Remember to sign your entry and you are done.

See that wasn't so hard!

About The Author

Joel Champlin runs a small oil and gas company in Enid, OK. He has a Mechanical Engineering degree from Southern Methodist University and a Masters in Business Administration degree from the University of Oklahoma. He has his Multi Engine ATP and Single Engine Land and Sea ratings with about 1,900 hours in Aerostars. He is married to Kelly and they have 4 boys, 2 daughter-in-laws and one grandchild. Contact him at joel.champlin@gmail.com or Cell 580.278.9267.

- 11. Example of where to cut the filter
- 12. View of clean filter after being cut open for inspection



N88CX

OIL CHANGE

Procedures

1. Order parts to have on hand – 2 cases AeroShell 15-50 (insert your brand), Champion oil filter CG48110-1 or Tempest AA48110-2, oil sample kit (Blackstone).
2. Run engine to warm up oil and shut down.
3. Remove top & bottom cowlings. Inspect for oil leaks & fuel staining (blue).
4. Lay down oil mat below engines to catch spills.
5. Attach hose with zip tie and drain oil via quick drain. Container must hold 12 quarts each engine.
6. Take oil sample mid-stream & send to Blackstone Labs.
7. Remove, inspect & clean turbocharger wastegate actuator filter.
8. Remove, inspect & clean oil breather screen.
9. Check spark plug leads for chaffing and cuts.
10. Check deck reference air hose nipples and clamps for tightness.
11. Check magneto filter ground lines & primary lead. Torque alternator lead nuts & check belt.
12. Check fuel pump, lines and injector lines for leaks & stains. Check air box door.
13. Check propeller deice leads for cable ties. Check spinner for loose bolts and cracks.
14. Check brake reservoir in avionics bay for fluid level. Add hydraulic fluid (5606) if necessary.
15. Bleed hydraulic pressure with flaps. Look for accumulator drop around 400 - 500 psi. Manually push flaps all the way up. Check hydraulic fluid reservoir behind baggage. Add hydraulic fluid (5606) if necessary.
16. Check tire pressures (NLG-45 psi, MLG – 70 psi).
17. Check brake pads for wear (wear indicator or .10" min.).
18. Clean and lube flap tracks (AeroShell Grease 33)
19. Slide element (diaper, rags, etc.) under oil filter to catch oil.
20. Remove, drain, cut open & inspect oil filter element for metal.
21. Label oil filters with date and hobbs time. Put Dow DC-4 on filter gasket.
22. Install new oil filters. Torque to 17-18 ft-lbs or ¾ turn past contact with gasket.
23. Safety wire with .032 stainless steel.
24. Remove tubes, close quick drains and zip tie vinyl nipple. Add 10 quarts oil per side + CamGuard (if used).
25. Put rags under engine and clean with brake cleaner or solvent and wipe dry.
26. Check exhaust pipes, turbo brackets, hoses, firewall, temp probe leads, etc. for movement or discoloration.
27. Check Turbo mounting brackets for movement, cracks or breaks.
28. Check Turbo mounting bracket front mount and nut for tightness.
29. Check wastegate linkage & pillow blocks for proper alignment & function.
30. Clean wastegate bearings with Berrymans followed by high temp nickel anti-seize. Do not use on other bearings. Lubricate them with LPS or other quality lubricant.
31. Clean inside & outside of cowlings, as necessary.
32. Install top cowling.
33. Run engine with attention to oil pressure and oil on ground. Shutdown. Remove cowling.
34. Check for leaks (oil filter, valve covers, oil/fuel lines, accessory gaskets, front crankshaft seal, etc.). Fix where possible & note where not.
35. Replace top & bottom cowlings.
36. Reset Oil Change Scheduler on Garmin 430W to 25 hours.
37. Properly dispose of old oil.
38. Add oil change entry to Engine log (see example below).

Left Engine - 10/05/2011 Hobbs 3308 SMOH 93 Changed oil and filter. Cut open filter and inspected. No debris found. Serviced with 10 quarts AeroShell 15w-50. Cleaned turbo wastegate actuator filter. Cleaned oil breather filter. Inspected fuel pump and lines for leaks and stains. None found. Checked turbo mounts for looseness & inspected exhaust system. Lubricated turbo wastegate linkage. Ran engine and checked for leaks. No leaks found.



THE FLIGHT SHOP INC.



Come for your annual and play for the week skiing, fishing, sight seeing or just relaxing

***Annuals/50 - 100hr Inspections**

***Pre-Buys**

***General Maintenance *Minor/Major Structural Repairs**

***Lg. Inventory Aerostar Parts *Licensed A&P/IA Mechanics**

***Personalized Service**

***ATP service providing the latest AD's on all components**

***Transportation to/from Salt Lake City International A/P**

435-723-3469 phone

1780 North 2000 West, Hangar #21 Brigham City, UT. 84302

435-723-1736 fax

email: sales@theflightshop.com or bill@theflightshop.com or craigh@theflightshop.com

www.theflightshop.com

Airport: KBMC Courtesy Van

JIMMY MULLEN'S USED AEROSTAR PARTS



From Wings , Props and Engines to Micro switches .
Buying Wrecks , Salvage and non-airworthy Aerostars to keep our fleet Flying
If I don't have it, I will help you find it !

JIMMY MULLEN | MN601DJ@AOL.COM | 239-878-6855

One Year Later...

By: Eric Lipper



Owning N702RJ has been a real adjustment because a year ago I was flying a Mooney that got about 11 miles per gallon and now I feel great when the JPI shows 5 miles per gallon. Time spent at the fuel pump aside the airplane has not changed my dispatch rate at all. Quite frankly, I was surprised that the addition of a second engine, pressurization, complex hydraulics and a twenty year older airplane did not adversely affect my ability to rely upon the airplane. My indoctrination began with Ken Bacon and I removing every panel that could be removed to fully inspect the bird. One comment Ken Bacon had at the pre-buy was that I should replace the Prestolite starters with Sky-Tech starters. His premonition was right and as was his pre-buy comment that one of the fuel pumps seemed weak.



My favorable experience is largely attributable to the fact that N702RJ was a plane that was, by all accounts, in very good condition when I bought her. With that said there were, as you would expect, some potential warts. The first issue was that the plane had both engines torn down about 75 hours before I bought her because the prior owner had an amazing prop strike. As the story goes he brought N702RJ down to the runway without landing gear extended and touched the tips of the props to the runway and quickly realized his mistake. The good news is that he had enough speed to pull up, go around, drop the gear and land normally. The common tear down and inspection lead to the engines being reassembled with the original cylinders, pistons and rings. I was concerned that the cylinders (with about 800 hours on them) presented a potential issue. I would have replaced them at that time if she had been my plane. ¶ The next issue was that the prior owner of N702RJ had passed away

unexpectedly and the plane had been sitting for a while. There is probably nothing worse for an airplane than sitting and I had no clear indication of how the engines were performing after the prop strike. Another oddity was that the plane also had a hole drilled in the spar at some juncture that had to be repaired at Aerostar Aircraft in a very complicated procedure. All of these issues encouraged my fears that things were just going to fall apart and it was going to be a challenge to put as many hours on her in a month as she had flown in the last year. A reliable airplane was vital to my work and I kept asking myself if was I heading toward a mess? ¶ As soon as I brought the plane home the next day I experienced low fuel pressure on the right engine. I dug around in the engine with my mechanic and found that the engine driven fuel pump on that side was beginning to fail. Not a great harbinger of things to come but we had just awoken the plane from the "dead" and we had flown her nearly 1000

"I have flown in all types of weather since the repair and it has been tight as a drum."

repair. I have flown in all types of weather since the repair and it has been tight as a drum. I do like the hot plate system a lot better than alcohol and it makes a lot less mess. ¶ After I solved the water logged hot plate I flew the heck out of the plane over the next 6 weeks. During that period I managed to fly almost 50 hours which was a pretty good pace considering that most of those flights were thirty to forty-five minutes each. It offered me a lot of take-



miles to her new home. Ken said that the fuel pumps last about 500 hours and, you guessed it, the log books indicated that my pump was about 530 hours old. An exchange pump from Quality Aircraft Accessories in Oklahoma cost \$825.00 and solved the issue. It took my mechanic about 4 hours to do the removal and replacement. By the way the left one with about 800 hours on it is just now starting to head the same way. ¶ During my training session I noticed an interesting problem appeared when flying in the rain. The space between the hot plate and the windshield would fill up to the top with water like an aquarium. The problem turned out to be nothing more than the seal between the hot plate and the windshield had lost adhesion to the windshield. A tube of silicone adhesive and a few minutes of work with blue tape and some cleaner provided a perfect

offs and landings that really helped me quickly get acclimated to the new plane. Having flown a variety of planes -- piston, turboprop and light jet -- I can say that the Aerostar is a great flying plane and probably the easiest plane to land in a crosswind. If you fly the plane by the numbers you will always look like a hero. I think a Mooney is a lot harder to fly well. ¶ From a pure operating perspective the plane performs best (in my opinion) in the upper teens. I usually run 22.5 GPH per side and my hottest cylinder will be 365 with the TIT's staying around 1510. With the MP at 30 and the props turning 2200 the TAS will be in the 225 range at 17,000. I might see 250 TAS at FL250 but it takes a lot of additional fuel to climb up there. I have also noticed that my autopilot will begin some kind of oscillation in the flight levels above FL220 which is another reason



that I sometimes stay in the teens. If I do fly above FL220 I usually hand fly to avoid the ups and downs. ¶ With some real experience behind me it was time to show off the plane to my friends. I decided to take N702RJ to the Mooney Owners Convention in Kerrville to be the twin-engine guy. When you show up with a bunch of Mooney pilots and you are in an Aerostar you immediately become super pilot – especially if you get a prime space on the ramp. We did the typical airplane convention stuff except this convention was highlighted by a tour of the factory. When it was time to leave I had the entire group watching me depart and, of course, the plane wouldn't start. Although there was no shortage of people available to advise me how to start the plane



we never had any success. ¶ On my 300 mile drive home from Kerrville to Houston I became acquainted with Blue Skies Aviation after I searched Aerostar and Central Texas on my iPhone. The owner of Blue Skies was extraordinarily helpful and even took an hour out of his Sunday to chat it out with me while I was driving home. He told me that he would drive to Kerrville from San Marcos and analyze my problem on Monday. At that moment I was really questioning why I bought this plane after she left me on the ramp but it was more my pride than anything else. The good news is that on Monday I found out that the reason she wouldn't start was the ignition switch had failed. If you didn't turn the switch all the way around it would start fine. A new switch and life was back to normal. While I was at Blue Skies I also put in the Skytech starters per Ken's recommendation – they

“When you show up with a bunch of Mooney pilots and you are in an Aerostar, you immediately become Super-Pilot.”

"I would encourage any of you that are minimally handy to grab a screwdriver and help with your annual."



were worth it. ¶ The next issue was that I shredded the alternator belt on the right engine. The problem showed up when I tried to run the air conditioner and the belt would slip. The solution was to have a mechanic pull the prop and change the belt. It was really dumb that with a recent tear down and inspection that they had reinstalled a belt with a manufacturing date of 1996! After the belt change the problem was solved. I also noticed that the AC system was not cooling well so I evacuated and recharged the system myself together with a new drier and expansion valve. After that "tune-up" the engine driven system in this plane is probably the best aircraft air conditioner that I have ever used. ¶ I flew for about another 115 hours without a single issue until my outflow valve went haywire. Unfortunately the outflow valve in my plane is an all electric system added as part of an "upgrade" made by Dukes. Very few Aerostars received this system and, incidentally, my valve was serial number 001. Dukes was virtually useless in trying to help sort out the system and wanted an outrageous fee to even consider a repair so I knew I had to figure it out myself. It took a lot of time and redneck diagnosis to eventually figure out that a setscrew loosened and one of the transmission gears had fallen off. It was easy to put the gear back on but the recalibration was a lot of trial and error. The best help that I found was from the Lancair

group because they used a similar system. If you have electric pressurization and have a problem call me and I will talk you through it. ¶ My final issue for the year was an alternator problem where my left alternator would drop off line. I tried setting them up again per the "book" and never could get the settings right. I read all the information that I could find and concluded that the regulators in my plane needed replacement. I had noticed that my two regulators were different models so I bought two new regulators and installed them. That fixed most of the issue but it still wasn't exactly right. I replaced the alternator with another Prestolite and the problem was totally solved. My alternators now are within 3 amps of each other and that is well within the specs in the book. ¶ Aside from these issues I had the usual airplane stuff that comes with any big engine piston airplane such as (a) sticky waste gates that were solved by Mousemilk; (b) a defective JPI probe that was solved by a new probe; (c) two main tires that needed replacement; (d) lots of oil changes and (e) a new battery. In my opinion the plane followed a maintenance schedule consistent with what you would expect for a piston twin. Considering the fact that I flew about 25 to 30 hours every month I felt like my operating experience was pretty good. Even my ten year old Mooney left me on the ramp once after the AC idler pulley fell off so age of the air-

frame is really not determinative. ¶ I ended the first year with an owner-assisted annual led by Ken Bacon. I took the plane into Tulsa with no squawks and Ken and I took her apart and really checked her out. I would encourage any of you that are minimally handy to grab a screwdriver and help with your annual – you can really be a better owner when you know how she is screwed together. This annual ended with nothing more than an inspection fee, a few waste gate rod ends, and some new spark plugs. Knowing what I know now the question is obvious. Did I make the right decision selling a 2004 plane and buying a 1984 plane? You bet and I would do it again. Plus, it is fun to taxi up in something that is different from every other Baron, 340 or Navajo. Enjoy Your Aerostar.



ERIC LIPPER
4014 Ella Lee Lane
Houston, Texas 77027

WHEN QUALITY MAINTENANCE AND ONE STOP SHOPPING MATTER



Corporate Headquarters, Dothan, AL



**OVER 30 YEARS
AEROSTAR EXPERIENCE**

- ✓ Highly experienced and quality maintenance facility
- ✓ Qualified for all 50 hr, 100 hr and Annual Inspections
- ✓ Installation of all Aerostar Aircraft upgrades and kits
- ✓ Pre-Buy Inspections for possible new Aerostar Owners
- ✓ Initial and Yearly Re-current one on one Flight Training
- ✓ Broker, buy or sell your Aerostar on our new website
- ✓ DAR on staff for importation and exportation C of A's
- ✓ State of art Paint, Trim, Placard and Interior services



Don Smith, Owner and President



Jesse Miller, Dir. of Maintenance

www.aerostarworld.com
(334) 983-5600

PO Box 9044 Dothan, AL36304
Fax (334) 983-4314
Email: Don@aerostarworld.com



www.nouwhiskey.com

Phone: (302) 993-0587

THE PERMANENT AEROSTAR SEAT SOLUTION EZ GLIDE ANCHOR ASSEMBLY



Features

- ★ For Use With Existing Seat Tracks
- ★ Seats Can No Longer Slide off Tracks
- ★ Seats Lock into Place & Remain in Place
- ★ Twice The Strength of the Original Anchors
- ★ High Strength Alloy Steel & Latest Plastics Technology

Contact

November Whiskey, Inc
 ★ 340 Water Street
 Newport, DE 19804
 p: (302) 993-0587
 ★ e: info@nouwhiskey.com
 w: nouwhiskey.com

STC SA 01111 NY-D
 US Patent
 6,260,813 B1

Henry Weber Aircraft Distributors, Inc.

WEBER AIRCRAFT

The nation's first Aerostar dealer, Henry Weber Aircraft has been providing quality service since 1968. Today, our FAA certified shop continues to maintain, repair, and conduct annual inspections for all Aerostar models. We remain committed to ensuring that all our clients receive the same excellence in customer service that has been our trademark for the past four decades.

Pride in our past. Reliability for your future.

Henry Weber Aircraft Distributors
 500 Airport Road • Lititz, PA 17543
 717-569-2691 • Weberacft@desupernet.net

LYCOMING
 AUTHORIZED SERVICE CENTER

You Fly the Best Personalize it with Drinkware from



We don't just love Aerostars we:

- Owned & flown since 1978
- 4500+ hours flown between 2 generations of pilots
- One 401P/700 (N21T) expertly reconditioned such that the 3rd generation can enjoy

N21T-Expertly reconditioned/maintained by Alan Speakmaster @ Master Aviation, Danbury, CT. (AFA member)



Circ 2012
Panel expertly customized by Mustang Aviation, Lexington, Kentucky



Circ 1997
Almost 1000 hours of my 2800 TT is in this 700 Aerostar. Imagine going from 80 hours TT to the "fastest piston twin", not many people have that opportunity, nor do many people have the opportunity to learn to fly from their father. (Especially one that has over 5000 hours in Aerostars!) What a wonderful experience.



Your Plane Our Product

Personalized Cabin Supplies from American Cabin Supply®

As a professional pilot, you know that galley supplies add that "Over the Top" touch to your flight operations. Whether owner flown or company plane, your aircraft reflects the image of you and your company. Now its time to make sure you personalize it with custom imprinted: Cups, Napkins, Plates, Coasters & Utensils.

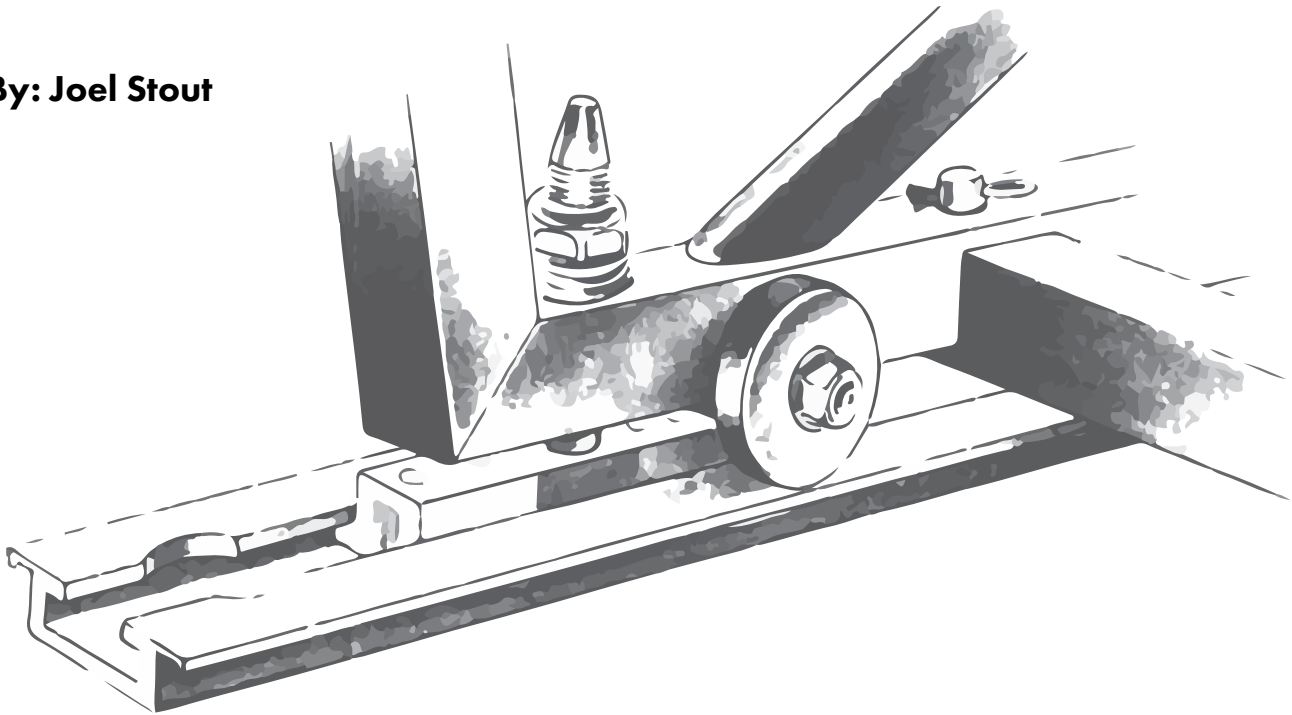
Your personalized drinkware is as easy as:

- 1) Pick your aircraft from our vast clipart library.
- 2) Provide text and/or N number with chosen font.
- 3) Fill out our order form.
- 4) Approve your proof provided to you within 1 business day.

EZ GLIDE

SEAT ANCHORS FROM NOVEMBER WHISKEY

By: Joel Stout



At the beginning of every month, I look forward to opening up my new car magazines, flipping to the center article on the newest and fastest Corvette or Ferrari to hit the streets, and dream a little about how fun it would be to drive a machine like that. I do the same when I get my latest issue of the Aerostar Log. I flip through until I find the heavily upgraded Aerostar that makes me say: "Wow, that would

be fun to fly". More often than not, the main article is showcasing the latest avionics box or modification from Aerostar Aircraft. But, what about us mere mortals who want to improve our Aerostar flying experience, and don't have, or don't want to spend, the 20K for new winglets or the 30K for the glass panel in the glossy photos?



“We know that great performance and sexy looks make the Aerostar a truly phenomenal machine.”

We know that great performance and sexy looks make the Aerostar a truly phenomenal machine. Another neat fact about Aerostars is that there are no two that are alike anymore. A vast majority of Aerostars are owned by the people who fly them, or are owned by people who have a love for aircraft and read past the stories they've heard about the planes. Each aircraft is a reflection of its owner and their personalities. That's what makes Aerostars interesting to me. Over the years, I have

installed about every upgrade or modification available on the Aerostar, and there are a lot. Each has its benefit, and all come at different prices. There are some modifications that have been around for quite some time, pushed to the back burner and overshadowed by the hoopla surrounding the newest upgrades. It is those smaller upgrades, the ones that have been all but forgotten, that are worth exploring. This is the first in a series of articles that will discuss smaller mods, upgrades, and additions that



will enhance the enjoyment and safety of your Aerostar without depleting your finances.

The first upgrade is one that you can't really see, touch, or show off to your friends, but makes life easier, not just for the pilot, but for your favorite right seat companion as well. The invisible wonders that I am referring to are the EZ Glide Seat Anchors from November Whiskey Inc. These have been available for some time, and have been installed in quite a few airplanes. There has been an ad in every issue of the AOA Log for many years. Yet I was speaking with a new Aerostar owner recently who had no idea this product existed. It was then that I realized that maybe someone should write about an effective solution to one of our planes' common problems.

Everyone flying an Aerostar has probably, at some point, struggled with difficulties in moving the front seats. Either they don't want to move all the way forward and back, or stick, or don't lock in place, or surprise you by sliding backwards on the takeoff roll. A good Aerostar mechanic can adjust them fairly well at annual, and they should behave for a while. But after a fairly short amount of time, they will "relapse" back to the symptoms above. But, the EZ Glide product cures the issues above, and gives the seat a more solid feel and more fluid motion. Gone is the "rocking" back and forth that even a well-adjusted seat will sometimes exhibit. With the design of the seat anchors, and the size of them, that rocking motion disappears. The design incorporates spring washers that keep a constant tension on the seat track itself, which in turn is maintained on the tracks when

“What about installation? Quite easy, actually.”

moving forward and aft.

But it gets better. Aside from being able to move the seats easier, there are also other benefits. Gone are days of putting someone in the right front seat, and telling them to dig their heels in to the floor to pull that seat forward, while at the same time pushing the seat from the back. And since you avoid doing that dance, no longer will the carpet get bunched up between the seat tracks.

Then there are the safety aspects. The EZ Glide Anchors are a lot stronger than the original pins. The original pins wouldn't normally fail in normal usage, but they are wearing the original seat tracks that are now 30-40 years old. I have had to replace a number of front seat tracks in recent years, mainly due to seat pins wearing the track channel from struggling with moving the seats. The gliders have at least four times the contact area and don't require the struggle, which will lead to a longer life span for the tracks. Another safety improvement is that with the new gliders, there is no possible way the seat can come out of the track. You'll never have to repeat the “fun” that comes with the front seat pins coming out of the track after releasing the brakes for the takeoff roll.

Alright, I've explained how great the product is, but what about installation? Quite easy, actually. The initial installation takes two to three hours. It requires pulling the front seat tracks up to install the gliders. Remember, there is no possible way for them to pop out of the tracks, so they have to be installed from the ends of

the tracks. This is a good time to really clean out those tracks that probably have not been cleaned well for a long time. There is also a cross brace that gets installed where the middle pins once were, which elevates the pins, but adds strength to the seat to help prevent warping and twisting. The original corner pins are removed and the holes are enlarged to accommodate the new gliders. Simply re-install the tracks with the gliders and lower the seat onto them. Then install the spring washers and nuts, and tighten as needed. So, in total, figure just a couple of hours for the initial installation, then about 5 minutes for installation after that, and the seats are perfectly adjusted.

So, what do these wonderful little anchors cost? Well, the kit for the two front seats lists for \$1800. With shipping and installation, you should be out the door for less than \$2000. It might seem like a lot for something that should have worked on its own, but over time you'll find they're worth their weight in gold.

Joel Stout

Juliet Delta Aviation
Elizabethtown, PA
flypa60@comcast.net
(717) 725-1674

U.S. MEMBERS VISIT

AUSTRALIA



With Bob and Mary Ellen visiting us for two weeks in November, I contacted Aussie Aerostar Owners to meet Bob again. They were particularly interested to hear about his new Winglets and the fact Bob had flown the Jet. ¶ Besides Bob and Mary Ellen others attending were Bob and Yvonne Davis (700P), Mark and Morag Jenkinson with Max and Mia (700P), Richard Ogilvie (601P) from Melbourne, and Lawrence Paratz (600A) with a friend Prof John Rosenberg also from Melbourne. Also, in attendance were the Airport owners Bill and Sue Antel who have various aircraft including a Comanche 400 and two friends of our ours, John and Neil, one a Jabiru owner and the other a pilot examiner. Our friends provided us with an excellent BBQ lunch with no charge for their labors. ¶ After lunch Bob Lepper was inundated with the Aerostar owners asking one question after the other, which he did a good job in answering. ¶ They all must have had a good time from the nice emails I received for organizing it. Both Richard Ogilvie and Mark Jenkinson attended the last AOA meeting at San Antonio and enjoyed it immensely. It is a must for all Aerostar owners, you learn so much. ¶ After 35 years of owning Aerostar VH-UYU and then a second 600A VH-UYV with the equipment I now knew I should have. Genny and I envy you younger pilots still flying.

LANGDON AND GENNY BADGER



Featured From Left To Right:

Langdon & Genny Badger, Bob & Mary Ellen Lepper, Richard Ogilvie, Lawrence Paratz, Mark Jenkinson, with Max & Mia & Morag and Bob & Yvonne Davis at rear.

NEWS

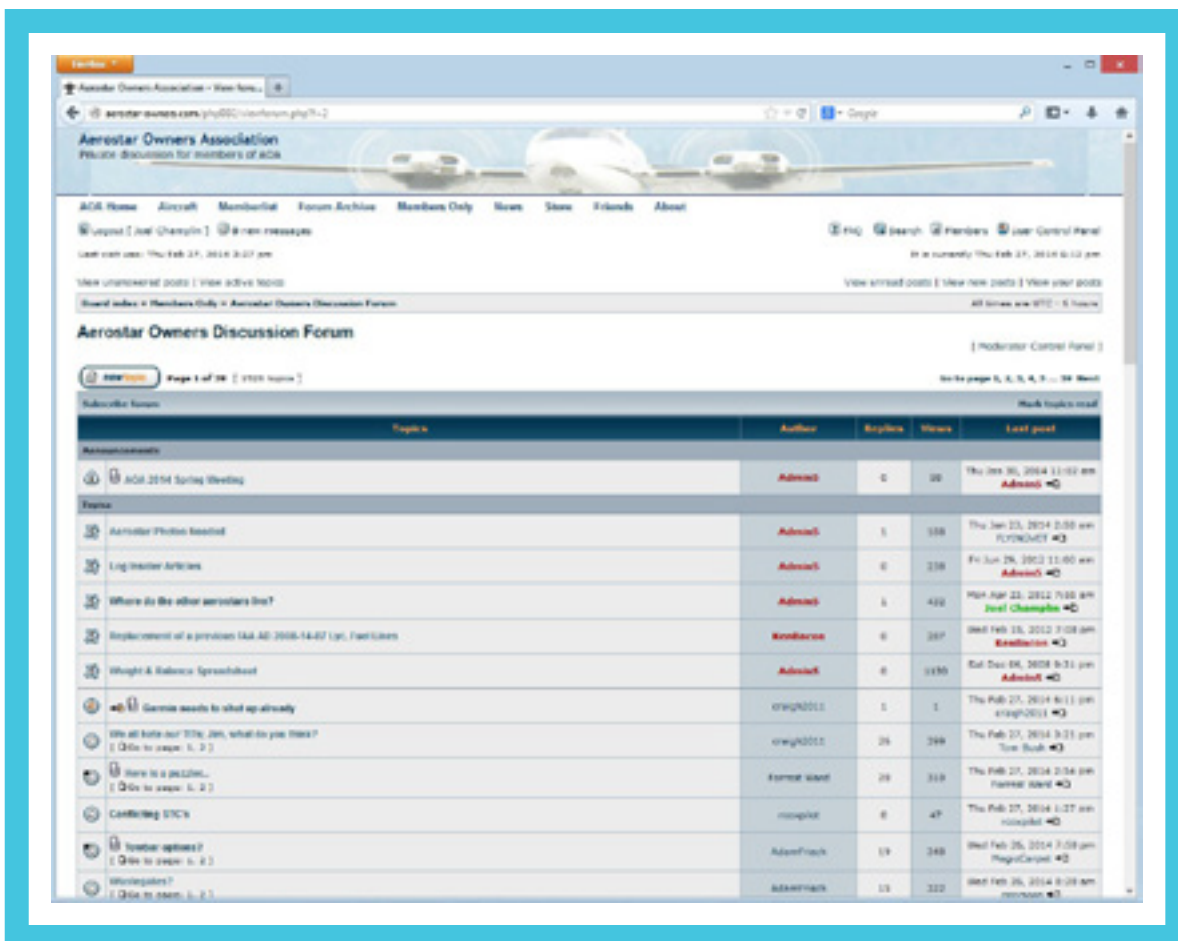
from the

FORUM

Greetings! I hope you have had a chance to join and follow the discussions on the AOA website forum. It is a valuable part of your membership and is constantly monitored by people knowledgeable about your aircraft. Plus there is an amazing amount of information contained in the history. The goal is to provide quick answers to your questions.

Here are some pointers:

1. It can take up to a day or two to get your registration approved. Register now, so it is quickly available when you need it.
2. With the exception of the Mart, it is a closed forum. So please use your real name for your username. If not at least use your full name in a Signature under "User Control Panel" in the upper right.
3. Speaking of Signatures, put your full name, email address, phone (if you want) and a description of your aircraft. For example mine is:
Joel Champlin
joel.champlin@gmail.com
N88CX – 1974 Aerostar 601P
4. While you are at it, you can add an "Avatar" which is nothing more than a small photo of you, your plane or anything else you would like. The maximum size is 100 pixels by 100 pixels.
5. If you have a question, the quickest way to get an answer is to do a search. Go to "Search" and put in something that will uniquely identify what you are looking for. You can also limit it by date, user, etc. If you want some help finding some information, just ask in a post and I will help you search.
6. If you do not find your answers via search, pose your question to the collective in a new topic. Go to the proper forum for the subject and click on "New Topic" in the upper left. Type in your question and hit "Submit". That's it.
7. Notice that the first few items are what are known as Sticky topics. They stay at the top. The others roll off



the bottom with the newest posts first by default.

8. Notice that the topics change color as you read them. If they change back it is because there is a new post.
9. A while ago we divided all the threads into topical sub-categories. It is nice if you want go back and read through the postings. A couple of things might help if you are struggling to like the new format.
 - It shows that you have all these “unread” topics even though you have read them. Look in the upper right of any forum or sub-forum box. Click on “Mark topics read” and that will make them all show as “read”. Then next time something is new it will show as “unread”.
 - If you don’t like going to each sub-forum to see the new postings, go to above the grey box where it says “View unread posts”. I have my link set up to go straight there. You can also click on “Members only” in the upper left of the box and that will bring up all of the topics uncategorized. Click on the oth-

er options such as “View active topics” to see what they bring up. Find the view you like best and set up a shortcut or bookmark to it.

That is all I will cover for now. Check it out. There have been some great discussions on lots of topics including:

- LED lights,
- Extending engine life
- Lean of Peak operations
- Landing gear upgrade kits
- Updates of the EPS diesel engine
- Crosswind landing techniques
- Accidents, and more...

As always, if you have questions send me a PM (personal message) on the forum or email.

Cheers!

Joel Champlin // Moderator

TURBO ISSUES

JACK BRUSH



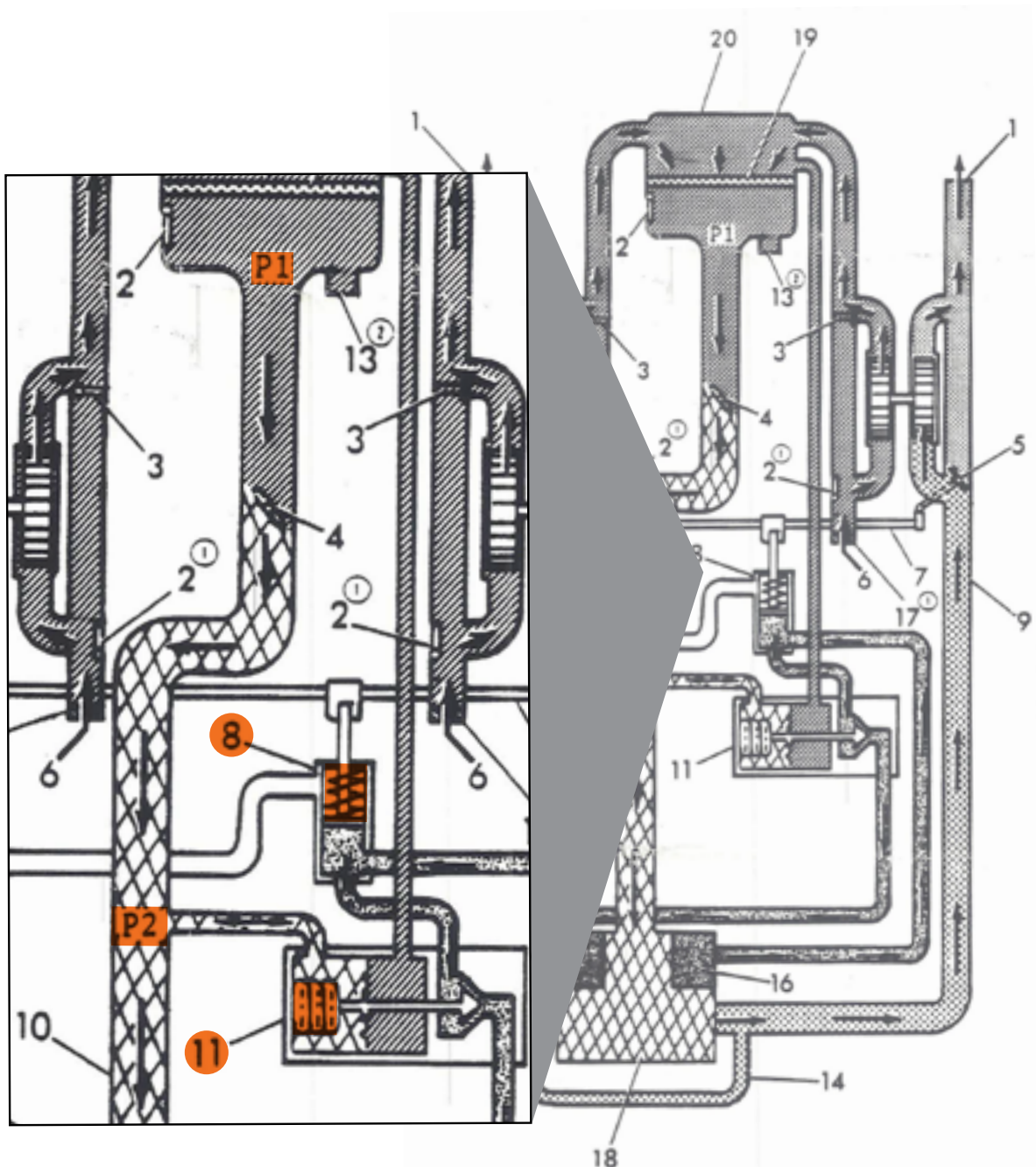
The Aerostar Aircraft Maintenance Manuals and flight manuals do an adequate job of describing the system and providing tables of symptoms and solutions.

The simplified circulation diagram gives you a good picture of air exhaust and wastegate control oil flow. Start at the controller (11). Upper deck air from the airbox (PI) is applied on one side of a diaphragm (left side in the picture) and lower deck air from downstream of the throttle plate (P2) is applied to the other side of a diaphragm. Some springs (not shown) balance the two pressures. The diaphragm is connected to a restrictor valve (shown tapered the wrong way in the picture) which partially opens or closes, controlling the flow of engine oil through the controller back to the engine. By restricting the oil flow, the controller varies the pressure in the wastegate actuator (8), which opens or closes both wastegates via the crossover shaft. The wastegate controls the flow of exhaust gas through the turbine section of the turbochargers. Changes in exhaust gas flow through the turbine change turbo RPM and change power furnished to the compressor. Turbine and compressor share the same shaft.

It works like this. Say you are at 18,000 feet pulling 27" HG in a 601P at 2200 RPM. The outside air pressure is about 15" HG and temperature 0°F. Obviously the turbos are compressing the air going to the engine. If they weren't your manifold pressure would be about 15" HG. The compressors are raising the ambient air pressure from 15" HG to 31" HG. They are producing (in the turbine) and consuming (in the compressor) only about 16 HP per engine, (assuming 70% efficiency). In compressing the incoming air, its temperature is raised to 110°F. The temperature of the exhaust gas drops 110°F, and the pressure drops about 13 PSI as it moves through the turbine. Incidentally, that means that

the exhaust backpressure is 26" HG or nearly sea level. Due to the springs in the controller, the pressure in the airbox is set slightly above 27" HG—about 31" HG in this case. The wastegates are spring loaded and open by the springs in the actuator and the small springs on the wastegates themselves. Engine oil pressure is driving oil through the actuator, and the controller is partially restricting the return flow to the oil sump just enough to force the actuator piston to move against its springs and partially close the wastegates. The wastegates are diverting just enough exhaust through the turbos to give you about a 4" MP upper and lower deck pressure difference. The controller tries to hold this difference constant all the time. The controller performs this balancing act by moving a shaft controlling the oil return to the engine in response to upper and lower deck pressure difference. With the wastegates only partially closed, you are not working the turbos very hard. They are raising the air from 15" HG plus some ram pressure to about 31" HG for a pressure rise of 2:1. They can do 3:1. Now suppose that due to turbulence, the airspeed increases 5 knots, the ram air pressure rise will increase, the turbine/compressor speed hasn't change yet, so the airbox pressure will be increased by two times the ram pressure rise. A constant fractional pressure drop will occur across the throttle plate. The net result will be a slight increase in upper deck pressure over lower deck pressure. This will force the controller shaft to the left in the diagram, opening up the restriction in oil return flow to the engine, lowering oil pressure in the actuator, which in turn will slightly open the wastegates. Opening the wastegates a

If the wastegates are forced fully closed, the controller can no longer keep the manifold pressure constant. OK, you know all of this—hang with me a while. *What can go wrong?*



bit reduces exhaust flow through the turbine, reduces its RPM, and reduces the pressure rise across the compressor. This reduction offsets the initial rise. The dynamics of the adjustment process are such that the upper lower deck pressure is amazingly stable so long as the wastegates are not completely closed.

If the wastegates are forced fully closed, the controller can no longer keep the manifold pressure constant. OK, you know all of this—hang with me a while. *What can go wrong?*

WEAR AND TEAR

The rod ends in the wastegate shaft actuator are under modest load, but considerable vibration. The rod ends near the wastegates are very hot all of the time. After 100 hours, you'll see some slop in the system. This can make the MP fluctuate or change the geometry so one or both wastegates aren't completely closed. Careless rigging will apply side pressure on the rod ends. You should be able to rotate the rods with your fingers at close, open, and anywhere in between. There are plenty of hoses and wires in close proximity to the moving parts. Hoses have been found tie wrapped to the cross shaft. In addition to binding the wastegate's movement, you could rub a hole in a hose. A slowly developing MP loss at critical altitude suggests that mechanical slop needs attention. A suddenly developed problem after exhaust system work means they didn't put it together the way it was, possibly changing the wastegate/turbocharger geometry.

The actuator piston can leak internally back to the engine and limit your ability to get expected boost. The turbos will eventually wear out. They ought to last at least 500 hours. What to do if the turbo clinks when you hit it with your palm—replace it—an internal heat shield is loose. If you can feel a wiggle in the turbo shaft, your turbo oil bearing is about to go. You're probably leaking oil into the air box or exhaust too.

CRUD

A buildup of oil sludge or a small particle in the restrictor passage of the controller can cause oscillation or lack of stable manifold pressure control. You might be able to convince a mechanic to pump gasoline both ways through the oil in and out ports of a controller when applying just enough air pressure at the upper deck part to open the valve (try 2 PSI to start). Replacing the controller is apparently the desired solution after swapping them left and right to see if the problem follows the controller. If one engine develops fluctuating MP or a reduced critical altitude, the mechanics may want to first swap controllers to pin down the defective part. If that doesn't work, they'll want to swap actuators. This is actually better than replacing with a newly-overhauled component. They might be defective out of the box. Realize that 601P's, 602P's, 700's and Machens do not all have interchangeable controllers or turbos. A slow buildup of crud will give you a slow onset of problems. The oil from the engine to the actuator flows through a restrictor about the size of a 1/16" drill before it enters the actuator. This little hole can get partially plugged by a piece of carbon or other item from inside the engine. This can cause instant wastegate opening and loss of manifold pressure. You can't fix it in the air.

A slow buildup
of crud will give
you a slow onset
of problems.

601P's take the actuator/controller oil from banjo fittings in the rear of the engine. It is the dirtiest oil on the engine because it is just in front of the oil filter. Some have installed an inline oil filter to guard against crud plugging the actuator and/or controller. Machen moved the controller source to the right rear fitting to get better oil pressure stability for Superstars.

At the same time, they got cleaner oil. 601P's used that port for turbocharger lubricating oil. Machen uses the relatively dirty oil at the banjo fitting for turbocharge lubrication. If your engine is normal, there is little real difference in oil quality, but if it's making particles, there can be a real problem. Sadly the penalty for dirty turbo lubricating oil is two new turbos. Double early turbo failure after an overhaul suggests dirty turbo oil.

POOR RESPONSE TO THROTTLE MOVEMENT

This can be real or sensor caused. Real can occur when the wastegates are forced so tightly shut that they stick, resisting the spring loading opening. You reduce the throttle but one MP stays up. Further reduction causes it to drop a lot. Any mechanical binding in the linkage can cause MP to stick and then overshoot. Sensor causes are fluids most likely oil in the line that should contain only air from the airbox to the controller or from the controller to the manifold. These are easy to disconnect and blow out. You can also get oil in the manifold pressure line from the cockpit gauge to the engine, which will give you a combination of slow MP response and then overshoot. The check and fix is easy. Disconnect the MP line at the instrument and the engine, and blow through it. You should not sense any bubbling. If you do, one classy way to get the oil out is to reconnect the line at the engine. Start the engine and let it run at idle. Stick the MP gauge end in a cup with a few ounces of gasoline in the bottom. Engine vacuum will suck out the gas and get all the oil out of the line. This can be a real concern after an engine overhaul.

COLD TEMPERATURE

The line from the controller to the actuator is about 4 feet long. It is supposed to be a -6 line. If it has been replaced by a -4 line, you'll have an exciting time in cold weather. Even a -6 line can have a problem. Here's what happens. When the engine oil temperature struggles up to the green, the oil in the lines to and from the controller could still be very cold. The oil pressure is very high. The cold, high viscosity oil resists flow through the hoses and can offer enough resistance to cause the oil pressure in the actuator to rise enough to close the wastegates. It will take longer than you think. Maybe 10 minutes at max power to replace the cold oil with warm oil. Firewall the throttle in this situation and watch the MP go off scale. A 601P could generate 90" of HG at sea level. That means instant engine removal. You are probably thinking that the little bellows I haven't talked about (on the left side of the controller in the picture) will save you. It is designed to collapse when it sees redline MP. The bellows is connected to the controller diaphragm and when it collapses, the controller opens all restriction to oil flow from the actuator to the oil sump. Unfortunately, cold oil in the actuator controller line can still generate enough pressure in the actuator to shut the wastegates. Those of you with Machens may have seen this a bit more often. **Rule: Set manifold pressure while you're looking at the MP gauge.** If you get red line MP way before you should, your fuel flow will be way low because of the servo schedule. Your EGT will be high. It's an easy way to find detonation in a 601P. Don't make the mistake I did once and say, "well its cold. I know what's going on here, I'll reduce MP, and by the time I rotate for takeoff, the oil will be warmed up." I was through 10,000 feet and in the ice before the cold oil engine started acting normally. The engine compartment will heat up faster on the ground.



POOR MAINTENANCE

If the nut connecting either end of the line from the airbox to the controller is only finger tight, the controller will see atmospheric pressure instead of upper deck pressure. Consequently, the controller will keep the wastegates open until you get within a few inches HG of atmospheric pressure. Then it will slam the wastegates shut. Keep pushing the throttle up and you'll see 90" HG at sea level. After any kind of engine maintenance, be very careful in applying full throttle. Don't hesitate to abort if you see any signs of over boosting. If the oil return-line from the controller to the engine is disconnected, everything will appear normal from the cockpit until all the oil is gone. Then you'll see normally aspirated manifold pressure followed by the prop feathering all by itself.

Before you go flying after any engine maintenance, consider doing a full power run up, verifying fuel flows, MP, EGTs then shutting down, pulling off all the cowlings and looking for oil leaks and fuel leaks and checking exhaust system integrity. The best maintenance shops do this for you and then tighten the clamps. It's not an insult to anybody to do it twice. Know your critical altitudes before you have any work done. Recheck them immediately after the work. An inspection should not lower your critical altitudes. If it does, it could mean you've got an exhaust leak you didn't have before. It could mean your wastegates aren't rigged correctly. It's

my opinion, but not everyone's, that you can't rig the wastegates correctly until after you run up the engine and retighten the V-band clamps.

BOOTSTRAPPING AND CRITICAL ALTITUDES

When everything is as it should be, you should be able to carry full red line manifold pressure at full RPM, at some airspeed up to some density altitude. 601P's, 602's, Machens and 700's vary. Above this altitude, the turbos can't hold the MP because the compressor inlet air pressure is too low. Don't be surprised if one of your engines is better than the other at this. You could see a 2" or 3" HG difference at full throttle and 25,000 feet. Know the critical altitudes of your engines. Look for possible air leaks, exhaust leaks, or rigging problems on your "low" engine. Realize that it is density altitude they deal in, so you can see a several thousand feet difference in summer and winter.

When you cruise with the wastegates shut, the turbos are said to be bootstrapped. How do you tell if you are bootstrapped? Reduce RPM by 50. If the MP drops, it's bootstrapped. You'll find that the MPs are very fussy and may oscillate when bootstrapped. Sometimes swapping controllers and actuators fixes the oscillation. You can't keep bootstrapped manifold pressure from changing in turbulence. Any airspeed change will cause an instant MP change. 601P drivers above 20,000

usually run extra rich to provide a detonation pad for MP fluctuations. Machens, 602P's and 700's have less of a problem. Operationally, power management in descent is a critical point. As you descend, the airspeed increase and altitude decrease may cause MP to increase. If you're not careful, you can run into detonation if you don't enrich the mixture. You don't want to pull off too much power to avoid shock cooling. On the other hand, you don't want to add power either. You might start a slow descent and then reduce the throttle to hold MP constant. A properly rigged 601P can easily have its wastegate almost welded shut after 3 hours in bootstrapped cruise, be alert for over boosting in descent. Machens are rigged so the wastegate doesn't quite close. They may be a little less prone to wastegates sticking shut. If the wastegate does stick shut, you can easily control MP with the throttle, but you'll have a throttle split left and right and the fuel servo will be confused. You will have to mess with the mixture to keep it running.

EXHAUST PIPE FAILURE

Anybody with much experience maintaining the Aerostar knows that exhaust cracks have been a problem for a long time. There are lots of theories about why the tailpipe sometimes cracks at the flange by the turbo. It's pretty obvious that if you open a big hole in the exhaust system before the turbos, the turbos will lack the capacity to drive the compressors. Loss of manifold pressure will clue you in to the problem. There is little risk of turning loose a 1300°F gas flow on the firewall from such a pre-turbo failure. It is self-extinguishing. Machen has an improved pipe/turbo setup.

Without the firelights, you had no idea if any tailpipe was still on the airplane. A tailpipe's only function is to get the exhaust overboard. You could run all day with no tailpipes at all, if your engine and hoses could stand the firewall temperature. You'd never see any problems at all.

Suppose your tailpipe breaks off. What's going to happen? First of all, *you aren't going to die*. I've heard of one credible case of a full throttle take off climb to a few thousand feet and landing 15 miles away. The tailpipe fell off sometime after starting because a mechanic forgot to put the

nut on the clamp. The pilot noticed a problem when he tried to reduce throttle (or mixture) and found the lever frozen. On the ground, the tailpipe was found lying on the bottom of the cowling. The exhaust had melted the plastic cover on the throttle or mixture controls. There was no other damage. A new control cable and a nut on the clamp was all it took to fix it. 400°F will set off the fire lights. The exhaust temperature drop is only a few hundred degrees. That will easily put 1000°F into the sensors. We tested some with a propane torch and you could get them on in 5 seconds. We've had them on our airplane for eight years and almost 1,000 hours. They've only come on twice. Once on the ground in the summer, simulating cruise power, leaned to 1600°F with about 65% power and a tailwind. As CHT and oil temperature approached red line after 2 or 3 minutes, the firelight came on. Throttling back to idle put it out. On shutdown, there was no sign of fire. Clearly lack of airflow can put 400°F on the firewall. The second time was in the air; about 55% power, gear down, flaps full down, 12,000 feet, and indicated airspeed of 70 to 75 knots for about 5 minutes fooling with an angle of attack indicator. A firelight came on. A zero G dive put the light out as airspeed went through 100 knots. On the ground no problem evident. Again low airflow.

It's very important to decide what you're going to do if a light comes on before it happens. I don't know if any of the maybe 20 airplanes with detectors installed before the AD ever had a tailpipe come off. There isn't much real world experience with lights installed and tailpipes not. My own impression is that the firelights are reliable, simple, and nearly bullet proof. If you see a light, believe you have 400°F and suspect a fire.

I'm planning on doing the following in this order:

- Confirm the engine
- Throttle to idle on suspected engine (If you're lucky, and there isn't a real fire, just a broken exhaust, the firelight should go out in a few seconds. Extinguishing the light is a reassuring confirmation that you've got the correct engine)
- Mixture to cutoff
- Prop feather
- The rest of the shutdown

Lucky pilots with a fire extinguisher will blow the fire bottle. Fooling around with things after a firelight comes on will do no good or harm if it was a false light. You simply can't tell anything from the cockpit. Incidentally, if the fire burns through and breaks the fire detector wire the light could go out again. Thus a light going on then off doesn't mean you're OK. Once your system is stable, assume that light indicates a fire, in which case you should shut down immediately. Be sure that your lights are paired up with the correct engines. Ground each sensor and make sure the correct light comes on. Consider what to do if the heat has melted your throttle or mixture or prop control and frozen it. You can use electrical power to shut off your fuel supply.

How do you feather the prop? If you can't do it, plan on a constant descent to landing. It occurred to me that one way to get the prop feathered, with the prop selector frozen, would be to do something that everyone has wanted to do; shoot the affected engine with a survival .357 Magnum, right through the window, into the oil pan. Why's that good, you ask? Because when the oil pressure drops to zero, the prop will feather. Try explaining to your insurance company "that the darn engine never could quite make its critical altitude. Then it caught fire and melted the prop control shaft so I couldn't feather. I was headed for Peterborough, and without feathering the prop, I'd have to divert to Newark. Faced with that choice, I did the obvious thing and shot the engine."

**Yeah, they'd
buy that.**



JACK BRUSH

I learned to fly and navigate in the Air Force in 1960 and have 7,000 hours of prop recip time including 2,500 in the same Aerostar. Over educated in Engineering, Economics and Karate. Met my delightful wife Elaine at the Tucson Aerostar Convention. My most interesting flying was 200 hours in a Cessna 337 as a Forward Air Controller in Laos in some long ago and best forgotten war. My landings are not getting any better.

Are you puzzled by Aviation Insurance?



Tom Chappell

Now more than ever, it's
important to understand
your insurance policy, and
we're here to help you!



**Call our staff today
for a free evaluation
and quote.**

800.999.1109

www.AviationInsurance.com



SPRING 2015 MEETING
KISSIMMEE, FL

NATIONAL AIRPARTS INC.

Alternator Specialists

The right connection for your Aerostar.



FAA-PMA APPROVED!

(phone) 386-734-3365 (toll free) 800-713-1111

www.nationalairparts.com

AT YOUR SERVICE

We are here to listen and to provide value to our AOA members. My personal goal is to save you, at a minimum the annual membership fee by helping you in all aspects of your Aerostar experience. Contact me, Ken Bacon, directly for your Aerostar needs:

- **Locating Parts**
- **Aviation Insurance**
- **Finding Aerostar Trainers**
- **Discounting On Parts**
- **Maintenance Assistance**
- **Buying / Selling An Aerostar**

If you need help with the AOA website or you have membership questions, please contact Burdella in the AOA office.

CONTACT

 **Ken Bacon**

 2608 West Kenosha, #704
Broken Arrow, OK 74012

 (918) 258-2346

 (918) 625-3161

 www.aerostar-owners.com

 kenbaconjr@cox.net

Event Calendar '15 '16

SPRING MEETING

April 23 - 26
Kissimmee, FL

FALL CONVENTION

Sep. 30 - Oct. 4
Nashville, TN

FALL CONVENTION

Sep. 18 - 22/Reno, NV
Date and Location are tentative

Advertising Rates

CLASSIFIED RATES

Classified advertising includes used aircraft, services and used equipment. Three column format (column width 2-3/16"). Regular line classified (42 typewritten characters per line - including spaces) Per regular insertion - \$60.00 // Oversize classifieds - \$90.00 Publisher reserves the right to refuse or withdraw advertising. Payment must accompany order.

DISPLAY RATES

Full page: ~\$372.00
1/2 page: ~\$216.00
1/4 page: ~\$144.00

Please call for cover rates and requirements.

Contact the executive directors office at:
918-258-246
info@aerostar-owners.com

Classified Ads

AEROSTAR FLIGHT TRAINING

Initial and recurrent. Insurance approved training programs. Contact: Dean Thomas at Pacific Aerostar LLC. **775-721-4618** or www.pacific-aerostar.com

FLORIDA SPRUCE CREEK FLY-IN

America's premier fly-in community. A 4,000' paved, lighted runway 5/23, 13 miles of paved taxiways, airport identifier, 7FL6. An 18 hole par 72 golf course, tennis courts, country club, 24 hour security, 15 minutes from Daytona Beach International Airport. Spruce Creek Fly-in realty, servicing Spruce Creek Fly-in for over 20 years, attends several trade shows a year, reaching out to customers; staff of full time associates; open seven days a week. We sell all property hangar homes, homes on the golf course, condominiums (some with planeports), lots, and rentals are available. Lenny Ohlsson, broker.

www.fly-in.com or
sales@fly-in.com
800-932-4437 (daytime)
or **386-761-8804** (evenings)

Advertisement Index

4 **AEROSTAR AIRCRAFT**

27 **AEROSTAR WORLD**

29 **AMERICAN CABIN SUPPLY**

46 **CS&A AVIATION INSURANCE**

21 **THE FLIGHT SHOP**

21 **JIMMY MULLEN USED PARTS**

10 **MASTER AVIATION**

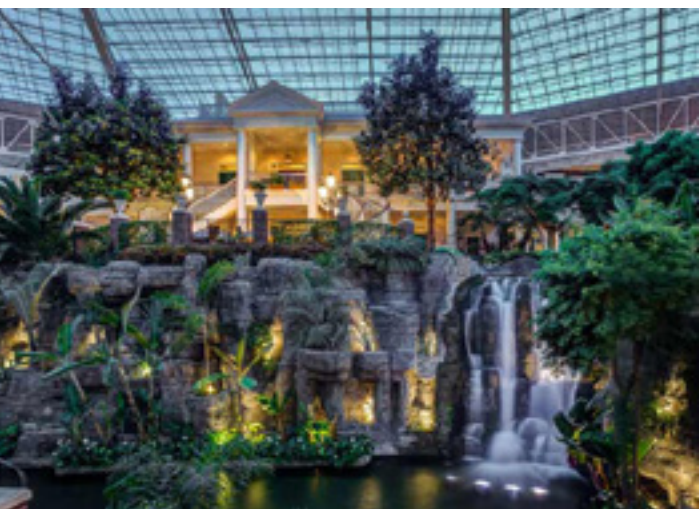
46 **NATIONAL AIR PARTS**

28 **NOVEMBER WHISKEY**

28 **WEBER AIRCRAFT**

Disclaimer

It is the policy of the Aerostar Owners Association that all Help Line suggestions be consistent with applicable FAA approved procedures, the FAA approved POH, Service Bulletins and Airworthiness Directives. Answers to technical questions are the best information available based on indications presented by the members asking the questions. Actual inspection of the airplane or system in question may change an initial telephone or email suggestion. Aircraft owners, pilots and readers are advised to physically present airplanes and indications to a qualified mechanic before choosing a course of action.



2015 FALL N CONVENTION

GAYLORD OPRYLAND RESORT

The Premier Opryland Hotel in
Nashville, TN
September 30 - October 4, 2015

