THE WIPAIRE WINDOW

A Special Newsletter Created for Everyone in the Aviation Industry!

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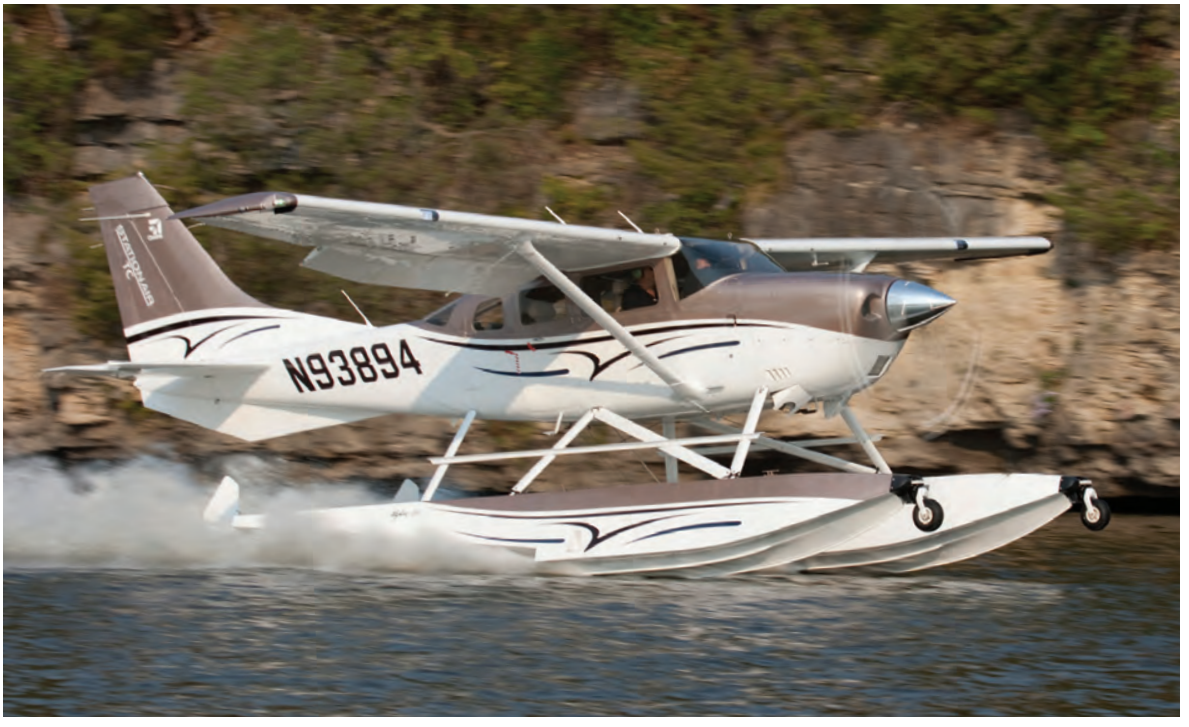


Featured Sections

Spring Seaplane Safety Refresher

Brian Addis, Business Manager - Lake & Air Pilot Shop

As we get ready for the seaplane season, well…okay, dream about getting ready for seaplane season, we start to think about the skills needed to get through the spring, summer, and fall seasons safely. I'm always looking to bring some new, revolutionary, amazing safety tip to these seaplane articles. So each newsletter time I search my archives for something so profoundly innovative that CNN will be at my doorstep. Nominations for the Pulitzer Prize will arrive in my mailbox. Seaplane people will take me to lunch. Then, reality sets in as I review the accident record once more, "same old stuff." Different people making the same mistakes, "same old stuff." As a refresher, the best thing I can do is list the "same old stuff" that causes accidents. Here's the "same old stuff" list:

Take-off or landing down-wind. Successful execution depends on planning, knowledge, skill and practice. Not recommended unless the circumstance leaves no other choice.

Glassy water landings. This one gets a lot of pilots each year. Good planning, good preparation, good procedures, and proper aircraft attitude are essential. Remember, if you gain reference because you're looking at the beach 100 feet off the nose of the airplane, and you're still in the air, there was most probably a mistake in planning.

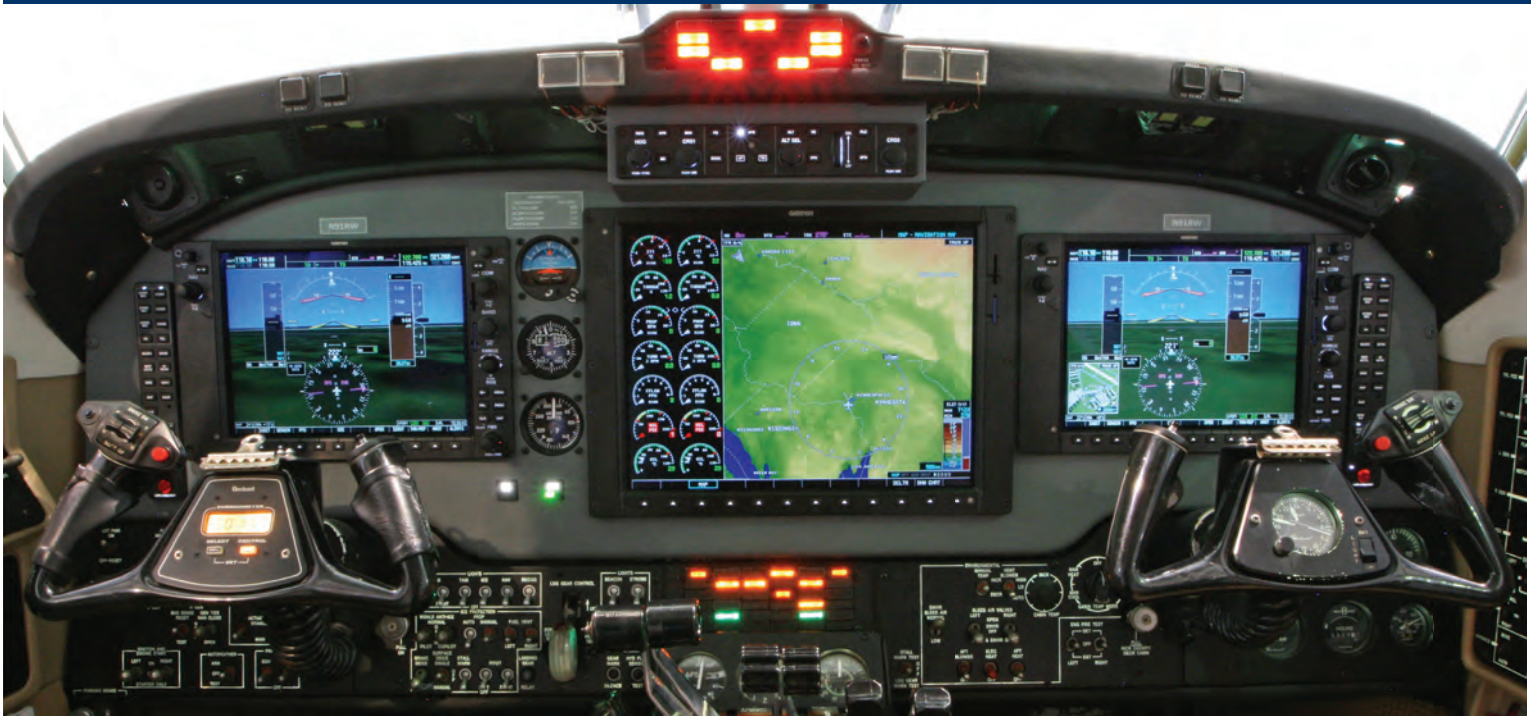
Gear down, water landing. This is not good, but it happens every year. There are so many procedural protections available to keep this from happening. The best defense is a "triple gear check" procedure before touchdown.

Too much wind. What can the airplane take, and what can the pilot take? If the pilot is unable to quantify the answer to this question, it's best to keep flying activity in surface wind conditions below 18 knots.

Takeoff without enough room to takeoff. Know your airplane. Know your skill level. Know your environment. Know your wind. Know the load.

Happy flying and keep your tips up!

Brian Addis

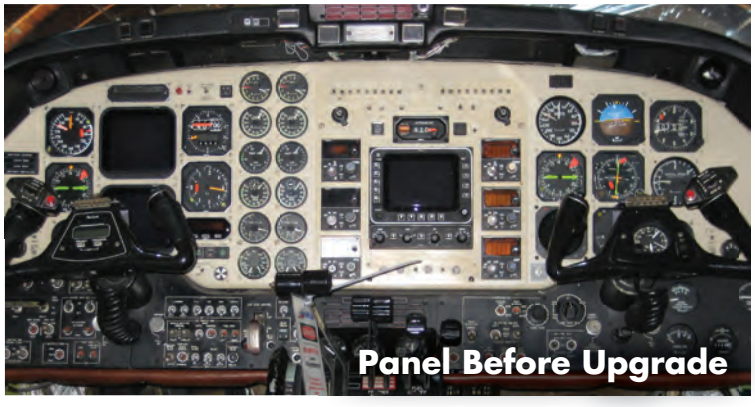


Wipaire Completes Garmin G1000 Transformation in King Air 300

Rick Wahlman, Avionics Manager

Shortly after Garmin announced the availability of their G1000 STC for the King Air 300, Wipaire completed our first G1000 retrofit in a 300-series King Air. This is more than a retrofit installation—it is truly a transformation. The G1000 integrates all primary flight, navigation, and engine instrumentation on large format, high-definition LCD displays. The G1000 suite includes two 10.4 inch primary flight displays (PFD) flanking an expansive 15-inch multifunction display (MFD). The transformation also replaces the aging autopilot with a Garmin GFC-700 fully digital, dual channel, three axis Automatic Flight Control System (AFCS). Behind the scenes, the G1000 is fed by dual WAAS GPS receivers, dual digital Attitude and Heading Reference Systems (AHRS) and dual digital RVSM-capable Air Data Computers (ADC). No more spinning-mass gyro's means more reliability and reduced maintenance costs, not to mention a tremendous weight savings.

Besides the basic system, the King Air G1000 STC also includes a Garmin GWX-68 digital radar, a GDL-69A XM weather data link (with XM radio), Class B TAWS and a flight management system controller as standard equipment. Our installation also incorporated a Garmin GTS-820 Traffic Advisory System, Synthetic Vision Technology, extended squitter Mode S transponders and a cabin display system. The transponders already comply with the upcoming ADS-B out mandate. The new instrument panel makes the G1000 look like it was always meant to be there. For our installation, all of the backlit switch and circuit breaker panels were removed and refurbished making the cockpit look like it just came off the assembly line.



Panel Before Upgrade

Wipaire is proud to be a King Air Preferred G1000 Installation Distributor and has been a top Garmin installation and service center for many years, having received the Garmin "Leading Edge" award in 2005 and 2006, the "Gold" award in 2008, and the "Silver" award in 2007, 2009, 2010 and 2011. The "Gold" award recognizes dealers in the top 10% worldwide, while the "Silver" award acknowledges dealers in the top 15% worldwide (Garmin has not yet announced the awards for 2012.). With experienced mechanics providing quality aircraft and engine maintenance services, coupled with world-class avionics, paint and interior capabilities, Wipaire can make your King Air look, feel, and perform better than new.

Spring Cleaning for Your Aircraft

Robin Ramberg, Lake and Air

Winter is finally loosening its grip, with longer days and warmer sunshine becoming the norm. Prime flying season isn't far off now! Spring is a great time to dust off your aircraft after winter hibernation, but proper cleaning is important no matter what the season. Whether it's freezing or scorching, Lake & Air Pilot Shop offers some great cleaning products.

Popular product lines include **Novus**, which features a multi-step approach to the cleaning process, and **Official Seaplane Gear**. To start off, we'll give you our tips for windshield cleaning. We recommend **Official Seaplane Gear Plastic Polish** as a first step. This formula will gently clean without scratching. It is imperative that you thoroughly clean the plastic surface before moving on to a scratch removal product, so that you don't add more cloudy scratches. You'll want to use 100% cotton wipes to ensure a scratch-free clean.

Now that your windshield is clean, you will need to evaluate the condition of the material. Does it have scratching or crazing? If so, to what extent? If you have heavy scratches, **Novus #3 Heavy Scratch Remover** is a great product. First, shake well and test a small amount in an inconspicuous area. Next, apply **Novus #3** by hand with a clean, soft, 100% cotton cloth, using back-and-forth motions at a right angle to the scratches. You may need to repeat this process depending upon the severity of the damage. Use **Novus #3** until only fine scratches remain.

Novus #2 Fine Scratch Remover should be used for fine scratches and to follow **Novus #3**. As always, shake well and test in a small area before using. Use a clean cloth for each product application, and wash after use. Similar to **Novus #3**, use back-and-forth motions perpendicular to the light scratches. Once the worst scratches have been polished out, reapply **Novus #2** in a circular motion to the entire plastic surface with short circular strokes and light pressure. Allow the product to dry to a light haze, then buff the surface to a slippery glaze, again using firm, short strokes. This final application is critical for achieving the best results.

To finish the process of cleaning your windshield, follow up with **Official Seaplane Gear Plastic Polish**. You're now ready to start your flying season off with a clear view!

These products are also useful for cleaning display cases, marble, electronic device screens, plastic lenses, and gauge faces.

For an all-over shine, don't forget **Lake & Air Float and Fuselage Cleaner**. This non-toxic concentrate is water soluble, biodegradable, and non-flammable. Because it's a concentrate, it can be diluted to the appropriate strength for your application. An economical solution, **Lake & Air Float and Fuselage Cleaner** leaves no oily film or gumminess, and is safe to use on metals, electrical insulation, and most painted and plastic surfaces.

For tougher grime, **Official Seaplane Gear Exhaust Stain Remover and Surface Cleaner** is an ideal product. Simply spray on, wait, and wipe away previously untouchable stains! You can use this product on aircraft, boats, RVs, and other vehicles. A versatile cleaner, it's also excellent for carpet, upholstery, and vinyl surface stain removal.

Browse the Lake & Air website, or visit our store on the first floor of the Wipaire office, to see all of our quality cleaning products and much more. We're always happy to help answer your questions!

LAKE & AIR™
Pilot Shop

www.lakeandair.com
1.888.525.3247

Common Aircraft Paperwork Errors

Paul Dauphinais, Chief Inspector

It's the first nice day of spring and you can't wait to pull your airplane out and go flying—but is your airplane ready? Sure, you've checked the oil and flight controls, but have you checked your paperwork? As an FAA- and EASA-certified repair station, we see a wide variety of aircraft come through our hangar doors. With that comes some common paperwork errors that both pilots and owner/operators should be watching for.

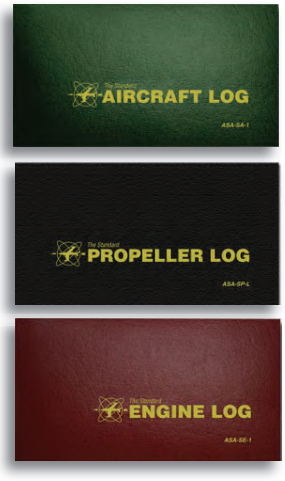
As pilot-in-command, you are responsible for determining if an aircraft is in airworthy condition prior to each flight (FAR 91.7). FAA Order 8130.2G defines "airworthy" and lists two conditions necessary to meet the definition.

If the paperwork is not correct, the aircraft is not airworthy.

1.) The aircraft must conform to its type design. Conformity to the type design is considered attained when the aircraft configuration and the engine, propeller, and articles installed are consistent with the drawings, specifications, and other data that are part of the Type Certificate (TC). This includes any Supplemental Type Certificates (STC) and repairs and alterations incorporated into the aircraft.

2.) The aircraft must be in a condition for safe operation. This refers to the condition of the aircraft relative to wear and deterioration; for example, skin corrosion, window delamination/crazing, fluid leaks, and tire wear.

Both conditions must be met for the aircraft to meet the definition of airworthy, so if the paperwork is not correct, the aircraft is not airworthy.



The aircraft's maintenance records consist of many pieces, including airframe logs, engine logs, propeller logs, and modification and repair documentation. Some of the items that must be present include STCs, which are approvals for modifications to a particular aircraft; this means that they are serial-number specific. If the STC is not present in the paperwork or does not reference the correct aircraft, the modification is illegal.

Don't forget that a current Airplane Flight Manual (AFM), commonly referred to as the Pilots Operating Handbook (POH), is required to be in all aircraft for which it is available. Remember that the AFM is serial number-specific, whereas a Pilots Information Manual (PIM) contains generic information that will not reflect the exact configuration of the aircraft. The POH typically contains an AFM section that is specific to the particular aircraft and its configuration. Another important item is an Airplane Flight Manual Supplement (AFMS) for aircraft with modifications requiring an AFMS. The AFMS addresses characteristics and considerations particular to a modification that the pilot must be familiar with. This supplement must be included with the AFM. Per Advisory Circular AC60-6B, the AFM, approved manual materials, markings, and placards "must be current and available in the airplane during operation." Note: Airplane Flight Manuals were not required for most light aircraft manufactured prior to March 1, 1979.

Remember, the owner or operator of an aircraft is primarily responsible for maintaining that aircraft in an airworthy condition (FAR 91.403). This means the owner/operator must properly communicate the work that must be performed on the aircraft to maintain its airworthiness, as well as ensure that it has been completed and signed off correctly by the maintenance provider. Don't get this confused with FAR 91.7, which states that it is the pilot-in-command's responsibility to determine that the aircraft is in an airworthy condition before flying it. If you are the owner and pilot, both responsibilities fall on your shoulders.

If you fly or operate a turbine aircraft, tracking time as well as cycles is vital. A cycle is defined as one landing and one takeoff. This is a different requirement than is present for piston aircraft, so be sure to monitor this if you are transitioning to a turbine aircraft. It's a change of pace that is easily overlooked, but necessary for tracking life-limited parts. Recall that both airframe and engine components can be life-limited and should be tracked accordingly.

Another simple one that we encounter is the annual inspection requirement. Per FAR 91.409, "no person may operate an aircraft unless, within the preceding 12 calendar months, it has had an annual inspection in accordance with part 43 of this chapter and has been approved for return to service by a person authorized by 43.7 of this chapter." The key term here is "12 calendar months." While this topic is covered on the pilot knowledge tests, it can be easy to forget. If your last annual

Common Aircraft Paperwork Errors Continued

inspection was performed and signed off on May 15, 2012, your next annual is due at the end of the month in which the previous inspection was signed off—or May 31, 2013 in this case. If your authorized inspector finds a lengthy list of discrepancies to fix and doesn't sign the airplane off until June 3, 2013, your next annual is now due by the end of June 2014.

Your aircraft maintenance provider works to ensure that your aircraft has the proper paperwork to return to service, but only you ,as the owner/operator, know the full story, especially if the aircraft has been to multiple service providers. As a pilot, you should be familiar with the records for both determining airworthiness prior to flying, as well as for learning about your aircraft. We wish you a safe season of legal flying!

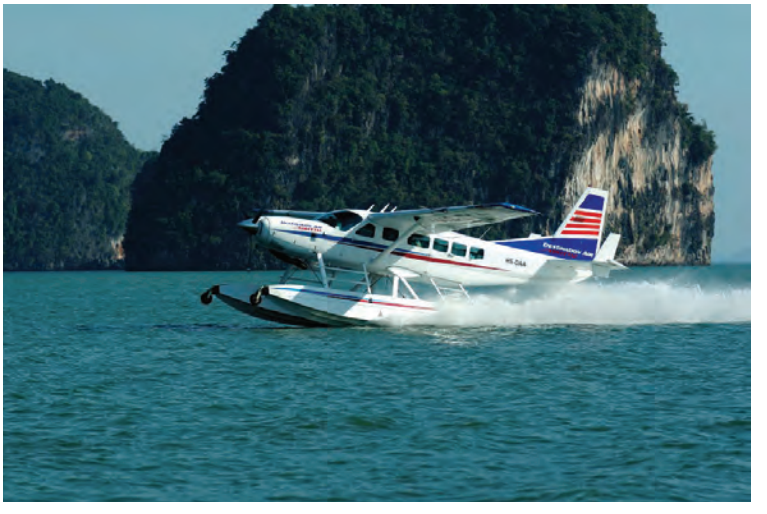
Brief on the Foreign Certification Process

Jalon Sortor, Documentation Administration/Foreign Certifications

Wipaire is proud to have products in operation worldwide, from Australia to North America. However, many people don't necessarily understand the work required to have modifications, such as Wipline floats, approved around the world. Wipaire's Jalon Sortor, who handles document administration and foreign certifications, offers some insight into the foreign approval process.

First, Wipaire secures a Supplemental Type Certificate (STC) from the Federal Aviation Administration (FAA) in the United States. Once an STC is issued from the FAA, it is eligible for aircraft specified on the STC or the Approved Model Listing (AML) within the United States. If the STC is to be eligible within foreign countries, many requirements must be met by the STC holder to obtain an STC Validation, or Letter of Acceptance, of the FAA STC from the country in question. Most international countries have their own requirements for foreign STC issuance but some countries have bilateral agreements, called Implementation Procedures for Airworthiness (IPA), or Schedule of Implementation Procedures (SIP), in place with the FAA for understanding each country's differences within this process.

There are a handful of government agencies that approve of the FAA's certification process. These include Transport Canada Civil Aviation, Civil Aviation Safety Authority (CASA) in Australia, and the Guyana Civil Aviation Authority to name a few. These countries will accept an FAA STC with no further design approval investigation. Most remaining foreign countries require an application to be submitted by the STC holder to the country's foreign authority for approval. The application, and associated engineering reports, must be in order per guidelines given by the foreign authorities' written instructions or by their regulatory



requirements. Once all documentation is in order, it will be mailed to the regional FAA Aircraft Certification Office (ACO). Once the ACO agrees that all required documents are present, ensuring the application is within the scope of the IPA or SIP, a statement of compliance letter is generated stating the FAA agrees with the STC holder's application. This letter and associated documentation is then mailed to the specified foreign authority. Once in the hands of the foreign authority, the review process begins. At this point, the application is either accepted or denied. Once the acceptance or denial has been established, a letter is sent to the applicant stating the acceptance or denial. The foreign authority is then in direct contact with the applicant for any questions or concerns that might be raised during the review of the application and engineering reports by the foreign authority's team of engineers assigned to the application. This process, depending on the foreign authority, can take from as little as six weeks to as long as two years.

Things to Do at Sun 'n Fun

Long considered "spring break for pilots," the annual Sun 'n Fun International Fly-In and Expo marks the unofficial start of the float flying season. Sunny Lakeland, Florida is a warm respite from the many locations still thawing after a lengthy winter. With pleasant temperatures and plenty of aircraft, here are a few of the things to look for at this year's event:

• Exhibits—exhibitors from all around the world make the trek to Lakeland each year to show off their new products and offer visitors a chance to see them up close and ask questions. Stop by the Wipaire booth in space MD-003D and introduce yourself!

• Florida Air Museum—the museum features a variety of aircraft with focuses such as Florida aviation history, Howard Hughes, the Tuskegee Airmen, Charles Lindbergh, and more. Admission to the museum is included with a ticket to the fly-in.

• Daily movies—see the schedule on the Sun 'n Fun website.

• Parts exchange—find the rare part you've been searching for or sell the one taking up space in your hangar!

• Forums—from planning your first trip to the Caribbean, to new electronics and unique history presentations, forums start at 9 am and go to approximately 2 pm each day and offer something for everyone.

• Daily airshow—with some of the premier airshow acts in the world, the daily airshow includes warbirds, vintage aircraft, state-of-the-art aerobatic aircraft, helicopters, gliders, and jets. Don't forget the popular night airshow on Friday.

• Splash-in at Lake Agnes—take a break from the hustle and bustle of the main event at the Lakeland airport and make the short drive to Fantasy of Flight on Lake Agnes for a day filled to the brim with seaplane fun! Precision "bomb dropping" contests and spot landing competitions, combined with a wide variety of seaplanes, make this event one of our favorites.

• Seabirds banquet—following the splash-in, stay over for the Seabirds banquet and enjoy some good food and great seaplane-oriented company. Tickets are available online via the Sun 'n Fun website.

We hope we'll see you there!

Don't forget to stop by Wipaire in booth MD-003D!

Spring Trade Show Schedule

Dates	Show	Location
March 25-26	MN Aviation Maintenance Conference	Brooklyn Center, MN
April 8-10	NATA Conference & Tradeshow	Yellowknife, NWT
April 9-14	Sun 'n Fun	Lakeland, FL
May 3-5	MN Seaplane Safety Seminar	Brainerd, MN
May 4-5	Great Alaska Aviation Gathering	Anchorage, AK