



*The Leader In Recreational Aviation*

## Chapter 736 Newsletter for June 2013

### Aircraft maintenance tips: Spring cleaning

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**By Jeff Simon**

The snow has melted in the northern parts of the country and previously dormant hangar doors are starting to open. Flying season is here!

But, before you jump back into the air, it's wise to take some time to prepare your airplane for the busy flying season. Aircraft are meant to be flown, and they can deteriorate quickly when sitting for long periods of time. So, it pays to do a thorough cleaning, inspection, and preventive maintenance as an introduction to the flying season.

#### **Cleaning inside and out**

Cleaning in the cold is uncomfortable at best and near impossible in some parts of the country. Take the opportunity that the warm weather brings to give your airplane a thorough cleaning, both inside and out. This isn't just about cosmetics; it's about inspection and preservation.

Begin by thoroughly washing the outside of the aircraft, removing any bugs, tar, and oil by using an aluminum-safe cleaner such as Extreme Simple-Green (regular Simple Green is corrosive to aluminum). Follow the wash by protecting the paint with a high quality wax or polymer sealant. I prefer polymer sealants such as Rejex because in my experience they tend to last longer and provide a better barrier to stains from bugs and sap compared with traditional carnauba-based waxes.

The glass on your aircraft requires specific attention as well. Give all of the aircraft Plexiglas a thorough cleaning using plenty of water and your bare hand in order to remove all debris without rubbing it into the glass and creating new scratches. Follow the cleaning by polishing the glass with an aircraft-specific Plexiglas polish such as Plexus, Clear View, LP Aero, or Novus.

Moving to the inside of the aircraft, begin by removing absolutely everything that isn't attached to the airplane. Get a cardboard box and begin filling it with all the charts, pens, checklists, flashlights, rags, batteries, etc. If you're anything like me, you'll have to stop halfway through the process in order to go find a bigger box. Once the aircraft is empty, vacuum it thoroughly and clean the panel and windows from the inside.

Finally, open the cowling and clean off the engine, mount, and inside cowl by hand. A little bit of 100LL and a rag (with gloves) goes a long way in removing any built-up gunk and oil.

## **Inspection time**

Inspections should not be just annual events, and you don't need to be a licensed mechanic in order to take a closer look at your airplane and its systems. Trace every system of the aircraft looking for leaks, mechanical issues, and corrosion. It doesn't take long to open the inspection covers on an aircraft and it's often the only way to get a glimpse of the control and fuel systems of the aircraft.

Look for signs of blue staining around all fuel hoses, injectors, etc. Check the drains on the fuel pumps and the distribution spider on fuel injected engines. Cold temperatures are particularly tough on the rubber diaphragms in these components and it's not uncommon to find leaks after a long, cold winter.

The control system is also subject to wear during the extreme temperature swings of winter. Using a soft cotton rag, gently run the rag over the control cables, especially near where they pass over pulleys. If the rag snags on strands poking out of the cable, have your mechanic take a look to see if the wear is within legal specs.

## **Lubrication, corrosion protection, and battery care**

Almost every aircraft has a lubrication chart, which includes locations for lubrication, types of lubricant, and the recommended lubrication intervals for each component.

Unfortunately, many owners have never seen the charts for their aircraft.

Take this opportunity to go through the chart and lubricate everything that calls for regular attention. These charts are very specific about the types of lubricant. Some areas require heavy lubricants such as greases while other locations can only use dry lubricants that will not attract dirt and grit. I've seen the problems caused by improvising in critical areas, so stick to the manufacturer's recommendations.

I also recommend using this springtime cleaning as an opportunity to treat bare surfaces of the aircraft to protect against corrosion. I like to wipe down areas such as the firewall with either ACF-50 or CorrosionX to keep everything clean and protected. I also make a point to coat any electrical contacts or terminals that are regularly exposed to the elements.

As a last step, start the summer off right by doing some routine battery maintenance. Batteries take a beating in cold temperatures. I recommend removing the battery from the aircraft, inspecting it, and charging it using an aircraft-specific charger.

A little TLC in the springtime can go a long way to ensuring that you have a safe and enjoyable flying season in the warm months to come. So, spend some time in the hangar this weekend, then pull out your bird and take back to the skies!

## **NTSB wants wind-test towers marked, registered**

As the wind-energy industry grows, the towers it uses to evaluate the potential of sites for power generation pose a growing hazard to aviation, the National Transportation Safety Board said, issuing six safety recommendations to stakeholders.

Citing three fatal accidents in which aircraft collided with meteorological evaluation towers (METs), the NTSB said the time has come for all such towers to be registered, marked, and lighted where feasible.

That recommendation, addressed to the FAA for possible amendment of Part 77 regulations—which now pertain only to structures more than 200 feet high—was accompanied by a recommendation that the FAA create and maintain “a publicly accessible national database for the required registration of all meteorological evaluation towers.”

“The NTSB notes that the deployment of METs will continue to increase in support of the wind energy industry in the United States and anticipates that, without a change in requirements, this hazard to aviation safety will increase accordingly,” said the May 22 recommendation, addressed to FAA Administrator Michael Huerta.

Although some states have passed or proposed legislation, the NTSB said, action is needed on a nationwide basis.

The NTSB also addressed recommendations to the American Wind Energy Association, urging it to “revise the Wind Energy Siting Handbook to clearly indicate the hazards that meteorological evaluation towers (MET) pose to low-altitude aviation operations and encourage voluntarily marking them to increase their visibility by reference to Advisory Circular 70/7460-1, ‘Obstruction Marking and Lighting.’ (A-13-018).”

The American Wind Energy Association also should inform its members about the circumstances of aircraft accidents involving METs—emphasizing the hazard to aviation, the NTSB said.

The NTSB also recommended that the U. S. Department of the Interior, Defense Department, and Department of Agriculture direct applicants seeking permission to build METs to the advisory circular on obstruction marking and lighting.

In a recommendation to 46 states, the District of Columbia, commonwealths, and territories, the NTSB urged enactment of legislation requiring that METs be marked and registered in a directory.

In 2011, the FAA released voluntary guidelines for the marking and lighting of METs, which, if less than 200 feet high, are not subject to Part 77 requirements for obstruction marking and lighting.

Many METs are portable, and can be erected and installed with guyed wires in a matter of hours, the FAA said.

### **Aviation Industry Looks to Prevent ATC Closings in October**

Aviation industry groups are looking to prevent a repeat in 2014 of the impact that the \$85 billion in government spending cuts known as sequestration had on airlines, manufacturers and air travelers recently.

A coalition of groups including the National Business Aviation Association (NBAA) and the Aircraft Owners and Pilots Association (AOPA) sent a letter to leaders of the House and Senate Appropriations Committees, urging them to preserve the contract air traffic control towers scheduled for closure at the end of the federal 2013 fiscal year in September. In May, both chambers of Congress passed a bill that allowed FAA to use \$253 million in funds from its Airport Improvement Program account to keep funding the 149 federal contract towers that were originally scheduled to close in April.

However, that funding is only good through the end of September. The towers, mostly located at small and medium-sized airports, would need an additional \$150 million in the FY2014 budget to stay open.

“NBAA has long maintained that these facilities are integral components in the world’s safest, largest, most diverse and most efficient aviation system,” said NBAA President and CEO Ed Bolen. “As lawmakers debate the federal government’s funding requirements for the upcoming fiscal year, we ask that they also consider the important role that contract towers play in our national airspace system.”

FAA's contract tower program currently includes 251 smaller airports across 46 states, handling about 28 percent of all air traffic control tower operations in the United States. When the sequester cuts became inevitable in March, the agency chose to close 149 towers with fewer than 150,000 takeoffs and landings per year.

Senate Appropriations Committee Chairwoman Barbara Mikulski (D-Md.) seems to agree with the aviation industry that the sequester cuts need to be reversed. In an op-ed published in The Washington Post last week, she expressed her belief that Americans "do not fully understand the long-term effects of cutting \$984 billion in spending over 10 years through sequestration."

"We 'fixed' the Federal Aviation Administration problem for only five months, and we paid for it by cutting FAA programs designed to expand the capacity of U.S. airports and improve safety. The sequester law lasts 10 years and imposes far deeper cuts," Mikulski wrote. "The solution to the sequester is not rocket science. We need to come out from behind our talking points and negotiate in good faith."

### **Next meeting**

Our next meeting will be held at the Curtis Air hangar at Pittsfield Municipal airport (2B7) on **Monday, June 17<sup>th</sup> at 6:30 pm.** Numerous issues associated with the upcoming fly-in will be discussed.

Please make every effort to attend.