



“Riveting Reading” North Carolina Wing Aircraft Maintenance

Nov 1, '18. Ed #11

By Major Martin 'Stryker' Heller



To: All NCWG Commanders, Operations Officers, Crew Chiefs and Aircrews;

1. October's highlights: Another month, another hurricane (Michael); fortunately, just 50 MPH winds as a tropical depression for NCWG. Crew Chiefs were able to safe haven their aircraft at home including four aircraft in maintenance at KSUT, plus N179CP (glad it was the off-season). While not the official total, I expect we'll have logged 300 hours in Oct; the actual total becomes available once the NCWG/DO compiles all those Form 10s, and populates the Form 18. You can usually find Form 18s on the WMIRS 'Reports' page below the link for 'Aircraft Logs,' after the ~14th of the month.

N405CV, N938CP and N963 each flew more than 30 hours. All stopped for their 100-hour inspection before October ended. **N741CP, N179CP, N4813C, N716CP & N99885** crossed 20 hours; probably **N99832** will too.

The good news is **N727CP returned** from New Jersey. New readers might not know it needed repairs to the cracked fuselage skin and bulkhead behind the fuel steps. Cessna won't admit to a weight limitation on those steps, and NCWG leadership is working to purchase small, folding ladders instead. It's not just being without an aircraft for 2+ months, or the >10K repair cost, (the A9 missions alone (to relocate the aircraft) are > 26 hours). More importantly, it's a matter of safety. Who hasn't slipped climbing up to check fuel? Once we get the ladders, please use them. Until then, use a local ladder if available, or your lightest crew member (or cadet). More good news: KLHZ was just assigned **N98426**, pictured above. She is a refurbished 1985 C-172 and NCWG's newest fleet addition (now 18 airplanes* in state, and one glider). (*MER still 'assigned' N358CP.)

The not-so-good news is **N358CP** (MESA) needs an engine rebuild after only had 1,069 hours. Before NCWG got use of it, this aircraft didn't fly much, and its first 100 hr/annual inspection here showed corrosion on the camshaft and pitting inside the engine block. Hopefully it will fly again before December.

“Atta-boy” to KECG pilot, Dan Malott: The consolidated maintenance shop gave accolades to Dan for spotting an overcharging condition (35 volts) on a C-182's start up. It should have blown a circuit breaker at (31.5 volts) but didn't. This observation helped maintenance quickly pin-point the problem and prevent further damage to the aircraft's electrical components. **N741CP** had been dogged by electrical problems for the past 2 months.

2. Maintenance Month in Review: After Hurricane Florence, we were back in the full swing of operations. N741CP got its new alternator. It then flew an AOB mission, came in for its 100 hr/annual, and got an alternator control unit (new name for voltage regulator). **N7360C** also had its 100 hr/annual. **N358CP**, despite all the minor repairs during the year, started its first 100 hour/annual (see above). **N98426 (C-172)** received an upgraded ADS-B transponder, its IFR certification and a bunch of squawk fixes. Despite coming straight from refurbishment, it had a few issues and was also outfitted with the standard NCWG equipment. **N99832** finally received its vacuum manifold rebuilt, so it again has a backup vacuum (IFR) capability, and returned to KINT. The delay was threefold; first Hurricane Florence caused a shop closure and evacuation. Next, N99832 was on temporarily tow plane assignment at KLHZ. Finally, it waited to swap places with N98426 (thus saving A9 funding). **N9930E** has new upholstery, (huge difference). 'Thor' was also polished. Special thanks to **Robert Rimmer** who helped with those improvements. All new fairings await N9930E's next annual. **N99885** received new, “Gameboy” style push-to-talk switches, as their 'RadioShack' buttons kept failing. **N4813C** had

intermittent Aspen display problems; turned out the remote sensor monitor (RSM) was bad and is being replaced. **N908CP's** new alternator didn't last more than a few hours and sat out nearly the month on replacements. **N726CP** got a new rear tail tie-down ring. Finally, **N938CP, N262CP, N963CP, N716CP, N179CP and N405CV** started their 100 hour/annuals the last week of October; **N938CP** is already back at KRDU.

3a. Admin Tidbits: Aircraft Information Files (AIF) and Flight Logs updates: Hope you enjoyed the break; we're back at it again with the following updates (due in your aircraft by 31 Oct 18). You can find the links to these documents at the CAP AIF webpage: <https://www.gocivilairpatrol.com/programs/emergency-services/aircraft-operations/aif/aif-airplanes-balloons/> and on our NCWG website at: <https://www.ncwgcap.org/index.cfm?fuseaction=page.display&pageID=80>

Document 1 - [AIF Layout](#) (updated)

Document 2 - [Current Version of Contents](#) (updated)

Tab #1 [Aircraft Flight Time Log 2](#) (update)

Tab #10 [Pre-flight Risk Assessment Instructions](#) (updated), [Pre-flight Risk Assessment Worksheet](#) (updated)

3b. The rescheduled NCWG Operations Conference is 17 November 2018, from 9:30 to 16:00 at a location to be determined. Lt Col Bailey will announce. All NCWG airplanes are required to be there, along with squadron operations officers, crew chiefs and Emergency Services officers. For those working on their Operation's Officer technical rating, attending one of these meetings is one of the requirements.

3c. **USAF Compliance Inspection of NCWG:** Annually, the Wing gets looked at, including spot checks of our aircraft. Last year, we were written up for low tire pressure on three aircraft. Tire pressure is supposed to be checked at least monthly (part of the CAP Form 71 checklist, (item 3F)). However, consolidated maintenance has also advised that often the tires are low. **Please pay attention to tire pressure.** Some based locations do not have easy access to an air compressor (or air tank). Other airports are easier. Nothing says you have to get your air at home station. **Repeat Write-Ups are bad news.** *'Don't let this happen to you (your aircraft).'*

4. **Maintenance Musings: Junk in the Trunk;** The weight of our aircraft boxes, aircraft logs, emergency kits, boat cushion, headsets, cleaning materials, extra quarts of oil and now/soon a ladder really adds up. We've updated the NCWGCAP.org Weight & Balance app for a default of 40 #s in the baggage area. If your squadron can find other places to store some stuff, or get rid of redundant material, it will give you more useful load.

5. Thanks for taking the time to read this and keep somewhere for your continuity. Riveting Reading can also be found on the NCWG Operations / Aircrew Maintenance Webpage. If you have questions, you can reach me at 703-732-3264.

- Stryker -

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This is N99832's vacuum manifold; basically, a pneumatic T-valve. After 33-years, the rubber seals gave, and needed to be replaced; a lot cheaper to rebuild than to buy new. To move the aircraft, the backup vacuum was bypassed (IFR restricted). The part was returned/re-installed in late October.