

“Riveting Reading”

Civil Air Patrol
North Carolina Wing
Aircraft Maintenance

Oct 1, '19. Vol #23
By Major Martin ‘Stryker’ Heller

N9930E’s Instrument Panel



To: NCWG Commanders, Operations Officers, Crew Chiefs & Aircrews;

1. Motivational Quote: *I was always afraid of dying. Always. It was my fear that made me learn everything I could about my airplane and my emergency equipment, and kept me flying respectful of my machine and always alert in the cockpit.* Chuck Yeager

2. “Happy New ‘Fiscal’ Year!!” Doesn’t really have the ring to it, and only makes finance officers and account managers both happy and miserable at the same time. But the government realized it’s better to separate the accounting year change over from the calendar new year.

2a. August Numbers Revisited: NCWG (you guys) has a strong finish in August and kept us #1 in CAP for hours/aircraft. Twin aircraft locations; **AVL & FAY** exceeded monthly hours requirements as did **BUY, JQL, & ECG**. **RDU/NC-048** was the top hour earner on **NC-170/KSUT’s C-182** with 33.3 hours. In total, **NCWG flew 337 hours in August.**

2b. September highlights: Another September, another hurricane. Thankfully, Dorian stayed off the shore and only coastal areas received strong winds, rain and some flooding...nothing like Hurricane Florence. Wing leadership sent out highlights of our mobilization, PoD activations and the photo missions we flew. Protecting our aircraft (Safe Haven) is becoming more efficient and without incident, so again, hats off to everyone. **N7360C** returned to service after three months and immediately flew a FEMA photo mission. Then “Lola” was supposed to deploy in support of the Puerto Rico/Bahamas, but ran into some alternator field/charging issues. A battery charge and five flying hours later, no problems found. Perhaps Lola didn’t want to leave NCWG. **NC-048** flew the hours off **N179CP**, and brought it back for its engine TBO/annual. And that was all just in the first week of September. Later, Hurricanes Humberto and Jerry started to threaten, but turned away early. Several airplanes went into maintenance affecting our fleet availability; those that didn’t, picked up the workload.

2c. September’s Numbers: NCWG had another good month with **446 hours**. It kept us ahead of the AZWG who flew almost 310 hours on their 13 aircraft. Top hour earners included: **KAVL/N99885 (47.6)**, **KBUY/N262CP (43.5)** **KJQF/KFAY swapping N727CP (37.8)**, and **KRWI/KIXA/ KRDU sharing N726CP (35.1)**. For the first month since May, every airplane flew; even if only 3 sorties.



2d. Yearly Totals: We ended FY19 with >4,800 total hours, averaging at least 260 hours per 16.8 aircraft (WMIRS report probably isn't right... more like 287 hours; we asked them to check.) You probably didn't know we had fractional aircraft... we don't. Its fractional due to aircraft coming and/or going during the year, and aircraft on prolonged maintenance (*Final numbers to be available when Form 18s are processed in Mid-Oct.*) **In FY19, NCWG finished # 1 in hours per aircraft in CAP (as we did in FY18, FY17 & FY16).** **NC-048/RDU flew N938CP >400 hours.** **NC-019/ KAVL flew N99885 (393) and N963CP (324) totaling 717 hours. (Not counting 30 more hours in others airplanes.)** **KFAY/NC-171 flew both N716CP & N4813C >340 hours ea.** **NC-022/KBUY flew N262CP > 300 hrs.**

2e. Top FY19 Performers:

- **NCWG's top hour earning pilot:** For the second year in a row; **Capt Morris 'Cliff' a.k.a. "Beast" Herring, (again) surpassed flying 200 (207) hours**, plus another 51 airplane hours in non-pilot roles.
- **Top O-ride pilot:** **Lt Col Wallace Courtney/NC-019** with >28 rides; he just passed 400 O-rides total.
- **NCWG Glider Operations was #1 in CAP with 282 Rides** (and with just one glider).
- **Top Glider Ride Pilot:** **Capt John Styers/NC-145**, CFI-Glider, with at least 85 rides.
- **Top Tow Pilot** numbers are hard to track, as glider tows per sortie vary on weather & other factors.
 - **Lt Col Richard Netherby/NC-145** is known to be the most prolific (having > 10 tows).
- NCWG had more than **3,350 Flight Releases**. The **busiest FRO** was (again) **Lt Col Craig Richardson with more than 700; ~ 21 % of all NCWG FY19 releases.**

3. Maintenance Administrative News: The **Aircraft Maintenance Reporting and Documentation (AMRAD) program** has been up for 5-weeks. *"It's the greatest invention since perforated toilet paper."* But that's the rub, everyone has to use it. It's not a logbook, but is a single source and record for tracking information & payments. Thus, every maintenance action needs to be opened as a discrepancy, whether it's a 50-hour oil change, 100-hour/annual, or aircraft repair (i.e., replacing a strobe light). Certainly, a vast improvement over the hundreds of emails, re-typing/cut and pasting on part #'s and estimates. Another advantage is that we get to see entire CAP fleet. Did you know there was a CAP balloon in New Mexico, or three C-182 retractable gear aircraft (NY, NH & MN) still in the inventory? While there are some growing pains, we'll learn to love and need it, as we do 'TP.'

3a. Maintenance Month in Review: New, 100-Hr/Annuals included **N4813C, N179CP, N99832 & N819CP**. We held off moving the first two aircraft to maintenance just before **Dorian** arrived, even though the aircraft were out of hours. Why? Because **KSUT** seems to be a hurricane welcome center. When we fly > 34-year-old aircraft, sometimes they need a lot of TLC. Such was the case with **N4813C, N99832, N9930E and N7360C**. **N4813C** had its windscreen re-sealed due to leaks, the nose wheel steering hardware replaced &/or rebuilt to eliminate shimmy. Several cowling screws had worn, so Riv-nuts were replaced. It got a new sun visor, known as a Rosen (as made by 'Rosen.') among other maintenance items. **N99832** arrived in the 3rd week in Sept. It needed 500-hour magneto checks, (one was full of oil--thus two weeks in sunny Florida for R & R, per CAP contract), and a replacement artificial horizon. The shop had to cover holes in the cowling worn through by the baffling/seals, thus baffling repairs too, replace a bent tow bar bolt, reconnect a wire so you could see the engine gauges at night, retorque the starter motor as it loosened up, replace the fuel tank quantity labels, repaired the external power door latch, replaced the frayed glider tow release cable, installed new brake pads, and verified the engine oil temperature gauge was still good, since its slow to rise. We finally installed its new

carburetor heater box which was ordered after its last 100 hour/annual. **N99832** also received a new aircraft battery. It's still sitting at KSUT, awaiting the magnetos triumphant return.

N7360C and **N9930E** rolled over from August and were completed in the first and second week of September respectively. **N9930E** had its corrosion protection, dual magneto inspection, some panel re-arranging, (so the autopilot isn't out of the pilot's reach, and removed a non-functioning Carb Ice detector (pictured above)), windshield re-sealed, nose wheel steering re-adjusted/hardware replaced (to lose the shimmy), propeller re-balanced, interior rear vents serviced, some headset jacks replaced, worn tires flipped, static wick & broken cowl fasteners replaced and an engine oil leak fixed. Seems the top engine housing bolts loosened and oil was making a mess. So that had to be cleaned, diagnosed and fixed as well. Astute readers and aircraft users may recall we recently replaced all the fairings and always do touch up painting on 'Thor.' That's why this C-182 doesn't look, nor perform, like the 1985 Cessna that it is. Same goes for **N7360C**, our 1977, Cessna 206G; the 6th oldest airplane in CAP. With its new right elevator and trim tab, the aircraft is much more responsive.... "Fly it, you'll like it."

N819CP (2003 C-182) had its annual done in Anderson, SC, due to the backlog of work at the KSUT consolidated mx facility. It remained off station, and sat out the AOB mission since the FY funding stopped. **N179CP** went through its engine TBO and 100 hour/annual inspection. The TBO engine has a new starter, mufflers, hoses, etc, although the alternator was rebuilt. It received a new master and avionics master switches and the ignition switch serviced as part of the 2000 limit. They also fixed a shimmy in the nose wheel. 'Sandy' took **N819CP**'s place at KHRJ, flying some very fast approaches.

3b. More Maintenance Actions: **N716CP** was grounded due to a strobe failure and the FAA/ AOPA legal 2018 interpretation. So, even though the airplane has ADS-B, other working anti-collision lights, including a beacon & pulse lights, and often flown crewed, it spent a week on the ramp awaiting a bulb; which by the way, has gone up by >\$100 to ~\$400 in the past year. **N716CP** flew aircrew chase for **N4813C**'s 100-hour/annual drop-off and got fixed 'on the fly.' **N963CP** had a spark plug fail on the #3 cylinder; repaired in a jiffy (well, twice), and allowed more of us practice on AMRAD entries. **N908CP**'s back-up attitude indicator was installed on an opportune visit to KSUT. On departure roll, the G500 died, and we taxied right back to the shop. Unsupported wires rubbed and blew the circuit breaker. An hour later, **N908CP** made the 23NM trip home to KILM in .3 Hobbs. Most G1000 aircraft aren't off the ground until .3 Hobbs time. **N963CP**, **N727CP**, **N405CV**, **N262CP**, and **N99885** had an oil change, as did **N724HR** (mine). **N726CP** and **N99885** (again) will get one tomorrow now that new FY money is here. FYI, Aeroshell now is sold in 6-quart boxes (although CAP /NCWG uses Exxon or else Philips oil). **N938CP** went to KTTA for a FLIR (Forward Looking Infra-red) ball install... **N963CP** will also get a FLIR ball.



3c. "What's WALDO?" Looking like a contraption to scatter human remains, WALDOair is a new technology, deployable, thermal imaging system that can be mounted on small piston engine aircraft (fortunately, not with double-sided tape). **NC-171/KFAY** practiced with it on **N727CP** in Mid-September. Eventually, we'll be briefed on the system and come up with a better wiring solution than running tape along the outside of the airplane. More info at: <http://www.waldoair.com>



3d. CAP Recruiting Events: Members don't like displaying dirty aircraft. (Left) Lt Karl Noffke - NC-170 washed N99832. (Right) NC-145 washes N7360C. Remember to claim credit in AMRAD.



3e. Prop "Strike" (JA): N179CP's propeller walked off the job o/a 7 Sept and travelled to KBUY to air its grievances. Concerned, NHQ paid more than four thousand dollars of attention to address its issues. Satisfied, the propeller has decided to return to work at KSUT while the engine TBO changeout was completed. It's now back in position, and 'Sandy' returned to operation o/a 27 Sept. (Read: Propellers and their governors are rebuilt during engine overhauls.) {Just checking if anyone is still paying any attention.}



4a. Admin Tidbits: Aircraft Information Files (AIF) updates: NCWG Supplement #2 to CAPR 66-1 (Aircraft Maintenance) was published 22 Aug 19 (attached). This means you'll have to swap three (3), double-sided AIF pages in Tab 12. There were no significant changes to the document. You can find all NC Supplements to CAP regulations at: <https://www.gocivilairpatrol.com/members/publications/approved-supplements-and-ois-by-region/mid-atlantic-region-supplements-and-ois>. Mid-month, Lt Col Bailey mailed out new credit card holders, so those get changed out as well, and remove the ripped, plastic card pocket on the AIF's inside cover. As for NHQ, their last AIF update was: 23 April 19. Expect an new update soon as they just implemented ICL [19-06](#) for CAPR [70-1](#)... regarding 'grounded aircrews.'

4b. FY20 CAP Member Funded Aircraft Rates: The NCWG CAPR173-3 supplement will be out in the coming weeks that will have contain this information. Remember, these are 'dry' (plus fuel) rates.

Manufacturer	Cessna	Cessna	Cessna	Gippsland
Model	172	182	206	GA-8
Cost/hour	\$65	\$73	\$106	\$101

4c. Miscellaneous Maintenance Stuff: Consolidated maintenance doesn't service your lockbox. If it is getting hard to open, it won't get easier for the next pilot to fly. Use some 'PT Blast' or WD-40 to help clean and lubricate the lockbox. Also, use caution when wiping dead bugs off the left wing of C-182s. That stall warning horn tab, can cut. At least it's on a red painted area so the blood doesn't show.

4d. KSUT New Terminal Open: Cape Fear Reg'l Jetport opened its new terminal on the west ramp, a few steps away from Cape Fear Airworks, our consolidated maintenance facility. With the new opening, they adjusted their fuel prices to have a self-serve discount (east ramp) of 50 cents/gallon. It adds up on

big fuel jobs, but also gives aircrews the option, if needed, to get full service as well. There are very limited tie ropes now on the west side, so expect to fuel and park on the east ramp.

5a. Where is it Written? You're asking for funding for SAR training; where can you find the scenario library to speed the process for everyone? Go to the Emergency Services tab on the NCWGCAP.org webpage and click on, 'Training Scenario Library.' Its right below the 'Training Funding Request' link.

5b. How about for Operations Proficiency? WMIRS demands to know which profile you are using. You can find those profiles in CAPP 71-4, **USAF Funded Proficiency Flights**. Night proficiency really isn't listed, but seems to fall under profile #7.

5c. In related flying, you just passed your bi-annual Mission Pilot form 91 check ride. Can you count that to reset your Mission Observer & Mission Scanner ratings? Yes, according CAP's Sortie Equivalency Chart,: <https://www.gocivilairpatrol.com/programs/emergency-services/education-and-training/sortie-equivalency> (attached). Just remember to go in and update your SQTRS for Mission Observer and Mission Scanner. It doesn't work for Aerial Photographer as that is a different set of skills. The chart allows a host of skills from Safety officer ←→ to MSA, Radio operators, to roles on Ground Team and in the Incident Command Center.

6. "Dip-Stick of the Month:" Not to restate the obvious, but our dip stick labels are squadron-based, not tail number designated. As NCWG re-assigns assets, I hope crew chiefs remember to take / re-locate their squadron's Dip Stick handle as appropriate; even if that means it sits on a desk for a while. There should still be the generic 'Fuel Hawk' that will remain with the airplane. This month's coveted, dip-stick holder has been awarded to **NC-057** in **Rocky Mount**. Wing Leadership has assigned **N9930E** full time to the Rocky Mount squadron. As a congratulatory prize, **NC-057** is this month's recipient. The dip stick holder was given to their commander at the Sept Wing Commander's Call.



Also earning the September Dip-Stick Award is NC-145 at Triangle North (KLHZ). Due to multiple squadron needs and challenges, the aircrews have changed based airplanes more often than most. They know, the CAP airplane on their ramp is theirs; even though the tail # changes fairly often. The prestigious Dip Stick award was present to visitors to KSUT on 1 Oct.



7. I'll be stepping away from CAP for a bit, so there probably won't be this newsletter for a while. Lt Col Chris Bailey (or designee) will be handling NCWG Maintenance issues in my absence. Thank you all for the support and for taking the time to read this. 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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