

"Riveting Reading"

Civil Air Patrol
North Carolina Wing
Aircraft Maintenance

July 1, '20. Vol #32
By Major Martin 'Stryker' Heller



N741CP: NCWG's 2006 Cessna 182/T was repainted in May. A funny story now, but COVID 19 restrictions/communications resulted in two, [blue colored](#), vertical "Civil Air Patrol" decals installed. KECG's maintenance shop removed & replaced them. Photo by 2d Lt Dan Malott Sr.

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

1. Motivational Quote: *When in doubt, hold your altitude; Nobody ever collided with the sky*

1a. COVID19 Aircraft Sanitation: Personally, I won't trust the aircrews before you to have sanitized the aircraft. Seeing the way some aircrews complete other end-of-flight tasks should be your first clue. Fortunately, cleaners are in the aircraft to sanitize before you fly. Atch 1 is a reprint of NHQ/LG's guidance on clearing the aircraft. It's your health...

1b. NCWG Chief of Standardization & Evaluation (NCWG/DOV) Comments: Special FAR time extensions (Atch 2)

1c. June highlights: In a word, 'Rain.' Between the weather & COVID19 phase zero restrictions, it's amazing we had much time in the air at all. NCWG flew: **~130 Hours**, about 10 hours less than May. The good news is that again, every NCWG airplane flew; averaging 7.2 hours each. **June's Top Hour Squadron** was a tie with **NC-019/KAVL for N99885 and NC-145/KLHZ for N938CP flying ~13 hours**. **NCWG's Top Pilot:** Capt Gary Shelley/NC-057, flying 9.8 hours.

2. Maintenance Month in Review: One might think COVID19 protocol would slow our maintenance needs; not so.

2a. Two Additional NC Consolidated Maintenance Shops: NHQ has approved both **Belle Aircraft Maintenance (KAVL) & Total Flight Solutions (KLHZ)** due to their previous performance and NCWG needs. As NCWG's fleet has grown, we needed additional capability, especially during peak flying operations. These two shops will eliminate the reliance on one facility, thus most backlogs, and will reduce A9 relocation sorties. Realize that several factors come into consideration when maintenance is due, so don't just assume your aircraft will go to the closest shop. **Maintenance moves will be coordinated as the needs arise.** Expect all planes to come to KSUT once a year. A big thanks to **NHQ Logistics** for quickly pushing this request & the paperwork through all hoops, despite the COVID 19 challenges.

2b. Aircraft in for Annuals: Just one this month; **N405CV**. "**Loki**" needed a new left brake 'puck' which froze. If it takes 1,300 RPM to taxi, a brake is probably dragging. '**Loki**' also again needed a main engine seal, a new battery and its IFR Certification. Due to summer rains, planes were delayed getting out of **KSUT**. **N405CV** went home on June 22 as part of a triple tail, and one car swap with **N179CP, N99832 & COV 32019**; kind of the same triple tail swap to get them all here & their aircrews home. Glad we saved a bunch of A9 money, because we ended up spending it below.

2c. Other Maintenance Actions: **N99832** needed both main gear landing bushings replaced, discovered and done while getting its bi-annual corrosion protection. **N179CP, N819CP** and **N437BA** also had their biannual corrosion protection done. **N405CV & N179CP** got caught up on their biannual, IFR certifications. Oil changes included: **N262CP & N4813C**. **N741CP**'s back up attitude indicator got the leans and its rear beacon went dark. **N726CP**'s intermittent radio problems were the result of the G1000, #1 GIA (integrated avionics) unit going bad. '**Betty**' was flown several times to chase down and confirm the problem. NHQ authorized a Garmin Exchange. **N726CP** went home, June 30. **N262CP**'s MFD FMS button needed to be replaced (read: swap out the MFD). In order to pay these two repairs (2018 N262CP and 2015 N726CP Garmin 1000 components) the **entire NHQ/LG staff** graciously forfeited their COVID19 stimulus checks. It was that expensive. Now, **N727CP**'s MFD buttons are getting really worn, **N963CP**'s co-pilot audio panel is acting up, **N4813C**'s GNS 200 is slow to awake and **N262CP**'s manifold pressure sensor is doing its own thing. We may need to start selling blood for these fixes. Any 'O-negatives' out there? It's the universal donor. **N963CP**'s FLIP camera was repaired and reinstalled on 25 June. **N99885**'s #1 Comm and repeater issues have been narrowed down to the cables

since we replaced about everything else, but the crew chief. **N99885** also exhibited some noises with the rudder cables. Maintenance opened up some panels, took a look, and couldn't duplicate the problem.

2d. Another 'Dip-Stick' Award: These go out to the Herculean pilots who feel the need to crank down on the oil level measuring probe. 'Don't!!!' The engine heat will automatically tighten the dipstick. If too tight, the plastic tube holding the dipstick can either loosen at the base, or even break off in the engine block causing aircraft grounding and repair. Snug is plenty fine. A loose dipstick wouldn't go far anyway since the oil access door will keep it in the tube. Oil loss, if any, would be negligible. If it takes two hands, or a tool to check the oil, the previous pilot overtightened it. So, lay off the spinach before pre-flighting. In related news, the call-sign, 'Dip-Stick' is still available.

3. Aviation Maintenance Support Information:

3a. GPS database current cycle (2008) started June 18th. Remember to update AMRAD; **both changed & due dates**. Also, a reminder to **use a different SD card to update the GPS database, than the data collection card**. Otherwise, every time one boots up 'Avionics Master #2', the MFD will ask if you want to replace a newer database with the older one. The 2009 cycle will start on July 15th.

3b. VIRB Camera, Exterior Mount, Hex key Replacement: It's the 3mm size; costs under \$1 at your hardware store.

3c. 'Clean Machines:' Omitted from June's RR was **NC-171** who washed and waxed **N727CP**. It's so clean, it even reflects on the ADS-B traffic displays. **NC-019** washed and waxed **N963CP** and **N99885** again, earning extra credit. Since the Asheville squadron (**NC-019**) is able to hangar their aircraft, their birds are really clean anyway.

3d. Aeronautical Information File (AIF) Updates: (Repeat) My 7 May email explained the litany of AIF changes since the new CAP Standards have been published. **Lt Col Bailey** updated & relocated NCWG's AIF page to the new website now found at: <https://ncwg.cap.gov/directories/operations/aircraft-maintenance/aircrew-information-files-aif>. Crew Chiefs should expect to print and swap out about ½" worth of pages, from the Table of Contents through the various regulations. NCWG added a 20 June email AIF addition for MAR Supplement to CAPR 160-2 behind tab #11.

4. Need All Pilots' Support: NCWG is coming up on inspection and working to **avoid a 'repeat write-up,'** namely **aircraft tire pressure**. In previous inspections NCWG actually had more over-filled tires than underfilled. Nevertheless, it's something we really need to avoid. We're asking pilots to find/use their aircraft's tire gauge and get used to checking the pressure. The next challenge is, 'where to get air if needed'? Some airfields have it easier than others; but the local pilots 'got to know'. This is an all-hands request so I don't care if you're 'under pressure', have an 'over-inflated' ego, or are just 'plane tired', please make sure it gets done. *This has been a public service message from the, 'Let's not get a three-pete writeup during our next inspection' committee. (LNG3WDNIC)*.

5. Thank you all for the support & for taking the time to read this. **Riveting Reading** has moved to NCWG's new website: <https://ncwg.cap.gov/directories/operations/aircraft-maintenance>. If you have questions, call 703-732-3264.

- Stryker -

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NCWG Aircraft Maintenance Officer

2 Attachments

1. NHQ COVID19 Aircraft/Vehicle Care
2. NCWG/DOV Comments

Riveting Reading – July 2020 - Attachment #3

NHQ/LG -- COVID-19 AIRCRAFT & VEHICLE CARE

March 20, 2020

To safely operate our aircraft and vehicles during the COVID-19 outbreak we need to disinfect and sanitize them to keep our personnel safe. This video was created by the CAWG to demonstrate sanitizing of Aircraft and Vehicles for COVID-19. Remember to never spray anything directly onto the screens or displays. Lysol can be used as well as the bleach solution they demonstrate in this video.

https://youtu.be/NOEs_jip-nU

We still recommend the use of a bleach solution or Lysol for disinfecting/sanitizing the aircraft since these (Textron) chemicals are not available. (Too pricey/too large quantity). This is a bit different than the soap and water recommended below. Soap and water will clean soiled items but will not disinfect/sanitize the items cleaned as Textron notes in their instructions. Also notice that Textron specifically recommends an alcohol solution be used on all electronic displays and that bleach solutions and Lysol not be used on these components.

If you're unable to attain these disinfectants due to shortages, we recommend these alternative cleaning options (Please note, cleaning may remove germs, viruses and other contaminants from surfaces, but may not be effective to kill them):

- Aircraft furnishings: We recommend using isopropyl alcohol (IPA)/water mix (60% IPA/40% water, by volume). For best results, wipe the surface with an IPA/water mix and let it dry. This mix can also be sprayed onto soft surfaces, like carpet, but **do not use this IPA/water mix on aircraft leather and windows.**
- Leather and windows: Any commercially available soap and water, such as dishwashing soap, can be used.
- Electronic displays: For glass products with anti-reflective (AR) coating, use a concentration of greater than 50% Isopropyl Alcohol (IPA) with a micro-fiber cloth to prevent scratches. Do not use bleach or Lysol® wipes, or any cleaners with Citric Acid or Sodium Bicarbonate as these can etch the coating on these displays. AR glass is used on displays and touchscreens in the Garmin G1000, G3000, and G5000 systems, as well as Collins Proline21 and Proline Fusion. Do not use IPA on acrylic, Lexan, or Polycarbonate screens such as the Garmin GNS 430/530.

The following options are not approved for use in Textron Aviation aircraft:

- Ozone generators: Ozone can be highly reactive to organic materials. Depending on its degree of ozonation, this method may degrade surfaces or rubber hoses.
- Hydrogen Peroxide: any solution of hydrogen peroxide may evaporate when used as a mist, degrading leathers, acrylic, or polycarbonate window coatings.

<https://www.gocivilairpatrol.com/members/cap-national-hq/logistics-mission-resources/aircraft-management/hot-news/covid-19-aircraft-care>

Riveting Reading – July 2020

Attachment #2 – NCWG/DOV Inputs (Major Stange)

(Re-broadcast of June 23, 2020 email from Kevin Conyers, NHQ Senior Program Manager, Stan/Eval)

(Expect more guidance from the FAA any day on extending the dates on some of these areas)

The FAA has issued a [Special Federal Aviation Regulation](#) (SFAR) providing regulatory relief to persons that have been unable to comply with specific FAA requirements due to COVID-19 impacts. Because the SFAR consists of three sections, each with different applicability, a careful reading and some interpretation is required to determine what relief is applicable to CAP flight operations. The discussion below addresses CAP/DO's interpretation of the application of each section and CAP's planned approach to implement the SFAR.

Section A (Training, Recency, Testing and Checking Requirements). This section provides relief to certain eligible pilots when conducting specific operations. For the purpose of CAP operations, *flight instructors and persons holding a remote pilot certificate* are provided relief while operating under Part 91 and Part 107, respectively. Relief is also provided to pilots conducting *any operation that requires the pilot to hold at least a commercial pilot certificate or for private pilots conducting flights to transport essential goods and/or medical supplies*. Since relief for commercial or private pilots is based on mission requirements, determination of eligibility must be made during the mission approval process and will only be considered when there is a shortage of qualified pilots to support the mission.

Relief provided under Section A includes extension of Flight Review expirations, extension of the timeframe permitted to meet instrument recency requirements, and extension of remote pilot knowledge recency requirements. CAP's guidelines for each item of relief are discussed below:

1. **Flight Review.** CAP Instructor Pilots holding an *FAA Flight Instructor Certificate* who have a Flight Review expiring in the period March 2020 to June 2020 are eligible to have their Flight Review expiration date extended to 30 June 2020. Prior to granting an extension within Ops Quals, CAP must validate that the pilot has complied with FAA required risk mitigations. Accordingly, the following process must be followed:
 1. Go to eServices > Ops Quals > Pilot – View/Upload Documents and upload to “FAA Flight Review” documentation of 10 hours PIC in the past 12 calendar months in an aircraft for which you are rated.
 2. Go to eServices > Ops Quals > Pilot – View/Upload Documents and upload to “FAA Flight Review” documentation of 3 WINGS credits accomplished Jan 2020 or later.
 3. Go to eServices > Ops Quals > Pilot FAA Requirements – Flight Review and enter 30 June 2018 in the Flight Review date, then click Submit.
2. **Instrument Recency.** As a risk mitigation measure, CAP pilots shall not use the 3-month extended instrument recency period provided by the SFAR for CFIs when flying CAP aircraft.
3. **Remote Pilot Knowledge Recency.** CAP Remote Pilots who need to re-establish recency of knowledge between April 2020 and June 2020, may use an online training course (www.faasafety.gov) to extend their expiration by 6 months. This is a manual process which is not tracked in Ops Quals.

Section B (Duration and Renewal Requirements) applies to all operations. Relief provided under Section B includes extension of medical and flight instructor certificates, as well as practical test validity periods. CAP's guidelines for each item of relief are discussed below:

1. **Medical Certificate.** Medical certificates expiring March 2020 – June 2020 will automatically be extended to 30 June 2020. Such extension shall not be interpreted as a change to the requirement of 14 CFR 61.53 regarding prohibition on operations during medical deficiency.
2. **CFI/CFII Certificates.** FAA Flight Instructor Certificates expiring March 2020 – June 2020 will automatically be extended to 30 June 2020. Flight instructors shall refer to the guidance provided in SFAR 118 to determine how to meet the revised requirements for renewal.
3. **Prerequisites for Practical Tests.** Knowledge tests expiring between March 2020 and June 2020 can be presented for a practical test for an additional 3 months past their expiration date.

Section C (Special Flight Permits) does not apply to CAP.

Action in Progress. Where appropriate, medical and FAA flight instructor expiration dates have been extended within Ops Quals. Qualifications are currently being updated to reflect the extensions. This process should be complete today. Ops Quals remains CAP's system of record regarding aircrew qualifications and flight release. Accordingly, unless a mission has been granted specific relief related to commercial pilot privileges, pilots shall not be released unless Ops Quals or a current FRO Support Report show the pilot to be qualified. If you believe a member is eligible for relief, but it has not been granted in Ops Quals, submit a Help Desk ticket in eServices with the subject "SFAR – [Qualification Name]." Mission critical release issues should be directed to the NOC.