

“Riveting Reading”

**Civil Air Patrol
North Carolina Wing
Aircraft Maintenance**

Nov '21. Vol #48

By Lt Col Martin ‘Stryker’ Heller



Glider Operations is one of the coolest missions in NCWG. A twice a month major effort, it needs help from pilots to coordinators. Contact Major Ricky Jones if you can support. (Left): Cadet Hannah Hummel, Orange County Composite Squadron (NC-150) & Major Chad Hutchins are ready for take-off.

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

1. Motivational Quote: *“Documentation is not understanding, process is not discipline, formality is not skill.”* Jim Highsmith.

1a1. NCWG Director of Operations (NCWG/DO) Comments: Condensed versions of emails to all pilots today included: NCWG is once again the top flying outfit in the nation. While the intense efforts...impossible without the combined efforts of so many of you, contributing in various large and small significant actions.... Actions are greatly appreciated, and 23,756 emails last year prove your involvement. (31 Oct/8:03). **Use of ladders to check fuel in our aircraft are now mandatory.** This is a safety and maintenance issue. Some of you are a little rough on the tires and **we ALL need to remember to be OFF the brakes when we land at the appropriate speed....** Finally...thank you, all of you (31 Oct/8:31am). Lt Col Matthew ‘Lobster’ Urbanek.

1a2. NCWG Director of Stan/Eval (NCWG/DOV) Comments: The monthly Continuous Training (CT) meeting will be "Making the Most of your FY22 Proficiency Flying." There will be two identical Teams Meetings so every pilot will have two opportunities to attend. The first will be Monday Nov 8, 2021 & the second will be Wed, Nov 10, 2021. Watch for an email with links to both. You can attend either. The information we will pass on is valuable to every pilot. -- Respectfully, Lt Col Arnie "Speedway" Andresen, USAF/Auxiliary.

Also, on Oct 29, Lt Col Andresen forwarded the **NHQ Standardization & Evaluation Newsletter**, November 2021 edition to all pilots in NCWG. Articles include: Taxiing incidents, GPS Jamming, and FRO process. All NHQ Stan/Eval newsletters can also be found at: <https://www.gocivilairpatrol.com/programs/emergency-services/aircraft-operations/standardization--evaluation-newsletters>

1b. Oct Highlights: NCWG slowed its roll: ~270 hours, **only 60 % of** Sep’s 446 hours. **N938CP** did de-surfaced (a.k.a. ‘flew’) the first week in October flew after Aero-Net issues were resolved and its propeller and governor rebuilt. This left only **N7360C** non-mission capable (NMC) which is awaiting a new (or at least a replacement) propeller. NCWG is still awaiting a C-182 promised in the FY19 trade for N358CP (*Mesa*) & is also down another C-182 aircraft when N9930E (*Thor*) was retired & sold off early due to the costly advisory directive. NCWG may be no closer to getting them, but at least leadership has written several papers and emails explain the situation again and again to higher headquarters. For those forgetting how we got N262CP, it was a delayed replacement for NCWG giving MDWG N991CP.

1c. Top Hour Flying Aircraft/Squadrons: **NC-048 (KRDU)** put ~40+ hours on **N716CP**. (Yes, we moved planes around a bit.) **NC-022/ KBUY** flew **N262CP** 27.8 hours. **N019 (KAVL)** flew **23.7** on **N963CP** and **20.8 hrs** on **N99885**. Other aircraft meeting the 20-hours/month goal included: **N99832, N4813C & N819CP**. In the under 10-hour (naughty) list were: **N741CP, N908CP** and **N98426**.

1d. Top (Hours) Pilot for October: 1) Lt Col R. Mason , NC-005 11.8hrs. 2) SM Virginia Cutler, NC-023: 9.3 hrs. **Top ‘C-mission’ pilot (self-funded): SM Virginia Cutler, NC-023: 7.0 hrs.**

1e. Ranking of Flight Hours Across CAP - Wing Averages for FY 2021

# in CAP	Unit	Average	No. Aircraft
1	PR	290.5	3
2	NC	284.3	15.4
3	DC	268	3.6
4	UT	257.1	7.6

Data (left) is as of: **30 Oct 2021**. As suspected, NCWG rose in standings to nearly #1 once hours were processed. 13 CAP Wings meet the NHQ Goal of 200 hours/aircraft in 2021. (In FY20, only 2)

Perhaps if NCWG didn't lose several aircraft for long term maintenance we won't have had ~125 unfilled special mission sorties, and put on back on top of CAP, yet again.

For the record, NC-019 (KAVL) flew nearly as many hours as PRWG.

2. Maintenance Month in Review:

2a. Aircraft in Annuals: **N726CP**: The 500-hour magneto inspection were due. Then the PFD failed on the way to maintenance. Next the airbag seatbelts failed their test, so they will be replaced with regular seatbelts. Waiting on magneto return from NHQ directed contracted maintenance. **N726CP** should return to **KILM** o/a 6 Nov.

2b. Other Maintenance Issues: Oil changes included **N727CP**, **N908CP**, **N179CP** and **N4813C**. **N99885** had a IFR certification at KAVL. Nice to have maintenance at home station, but in this case, the avionics specialist came to **KAVL** as part of a several aircraft certification effort. **N437BA**: The glider had some hardware issues and will be looked at/repared at home station (KLHZ).

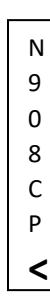
2c. Aircraft Wheels: A.K.A. Tires: As in we're tired of talking about tires. But we're under pressure to do so because NHQ is really tired of paying to replace them early. Mostly round is okay, and once again we are reminding pilots to keep their heels on the floor when landing. Maybe we should ban flight suits because aircrews don't have much pedal feeling with those military boots. The one-year-old, CAP Standard 73-2, Operational Procedures, Airplane, para 3.2, (Preflight): requires, "Aircraft tire pressures shall be checked with a gauge prior to the first flight of each day, at a minimum, and whenever tire inflation appears abnormal. As long as we're mentioning things we're supposed to do.... Carbon monoxide (CO) detectors shall be checked prior to each flight." ← Where is that written? Among other places, on every AIF cover page. To Help Pilots out; below is a picture history of tire flat spots, and when they need replacing (at scheduled times). Just because the tire has a flat spot, doesn't make in unairworthy.



A. Normal
Tire wear



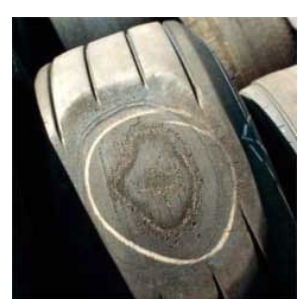
b. Slight tire tread
Worn due to hard
braking. Notice
2nd from right
tread rubbed flat
in one area.



c. Deeper wear
mark. The fiber is
showing and partly
worn. This is still
acceptable to use.



d. Notice the two
deeper layers worn
through. This tire
would be replaced at
the next 100 hr mx.
Still safe to fly.



e. This tire shows the
about six layers of
material when the tire
should be replaced
when discovered.

More info information at: https://www.bridgestone.com/products/speciality_tires/aircraft/eandr/rec_win05.html

3. Aviation Maintenance Support Information:

3a. Lots of new CAP Aircraft Maintenance Guidance: In the past few months, NHQ/LG has published, CAPR 130-2, CAP Aircraft Maintenance Management, (which is a rewrite & update of CAPR 66-1), CAPP 130-3, Aircraft Management removing some of the technical info (paint schemes, tie-down hooks, etc...)) out of CAPR 130-2/66-1. Also, NHQ published CAPP 130-2, Aircraft Maintenance Officer (AMO) Guide. This is a first time, detailed training guide for aspiring (or coerced) AMOs. Someday soon, there will be a AMO career track instead of the current Logistics Officer requirement. In short, the specialty is being recognized and maturing, rather rapidly; and perhaps someday, we'll have our own badge, patch, appreciation, respect, etc....

3b. NCWG Aircraft Maintenance Supplement: With great new regulations, comes great new supplements. **NCWG Supplement 1 to CAPR 130-2** is already deep in coordination and **will replace the NCWG Sup to CAPR 66-1**. Some information is obviously carried over but additions/changes include:

- **NCWG Regional AMO coordination Process.** This now documents what NCWG has been doing for the past two years. Aircraft going to maintenance will have their crewchiefs coordinate with the regional coordinators as follows: KLHZ – Lt Col Bailey; KAVL – Lt Col Davis; KSUT – Lt Col Heller; other shops – directly.
- **Additional Guidance on AMRAD Entries:** Small squawks get grouped together, big issues separate. Also, while NHQ allows pilots to directly enter discrepancies, NCWG highly encourages pilots to talk to their crew chiefs first to validate & properly document the problem; especially if one is thinking of grounding the plane.
- **Aircraft Logbooks will no longer be kept in the aircraft except on flights to/from maintenance.** IAW the new CAPR 130-2, Para 7.1.2., “Logbooks are to be kept in a fire proof/waterproof container.” We’re getting clearer guidance on that, but in the meantime, think about two layers of safety. I.e., in a file cabinet in a building is fine. Sitting on the shelf of a hangar, not as much. They should be in some sort of water-resistant container in the hangar and labelled so it’s less of a scavenger hunt when needed.
 - o Obviously, it would help other aircrews if they knew where logbooks are now kept. There is a spot in the AMRAD aircraft data for comments (bottom right side of the data form). **Crew Chiefs please add: “Aircraft Logs are kept at: (insert appropriate info here).”** (See N179CP entry for example.)

The following information/restrictions are more operational so they will appear in the next rendition of the NCWG Supplement to CAPR 70-1 rather than the new maintenance supplement :

- **Close the Window Before Engine Run-up and whenever in flight:**
- **Using a ladder instead of the aircraft fuel step** (for both safety & maintenance reasons). →→

3c. GPS database current cycle (2111) starts 4 Nov. Please update AMRAD so other aircrew members know. →→

3d. Cold Weather Operations: NHQ and some crew chiefs are already briefing cold weather operations as winter approaches. Attached are manufacturer guidance for cold weather procedures. Some have asked, ‘what if we don’t have time or ability to preheat the engine and a real-world mission comes up?’ If it’s too cold to start the engine, you don’t fly.... Cold starts do more damage to an aircraft engine than almost anything else. Don’t like that answer? Explain the Director of Operations or the Wing Commander why none of the other aircraft are available and we need to damage your aircraft for this search.

3e. Flight Release Officer (FRO) Program: NCWG Ops just released a new FRO list, adding more experienced aviators as FROs. Now, there is basically one FRO for every 4 pilots in each group. Some long serving FROs are no longer listed since they don’t meet the aircrew currency requirements (a lot of regulations have changed over the years). I’m sure they are relieved to be ‘off the hook.’ Remember, FRO’s can’t release your flight until the paperwork; especially until the Operations Risk Management (ORM) is complete. **So don’t select an FRO in WMIRS, until the ORM is done.** When choosing an FRO, shop locally – its harder for distant FROs to search for you if needed.

3f. 'AIF Tab of the Month:' (*seriously, I have to bring this up*) **Tab #3 – VOR Test Record / Fire Extinguisher Check**

[illegible][illegible]

Blank copies of these forms can be found on NCWG's Webpage under Operations/aircraft maintenance

These are probably (in some units) the two most neglected pages of the AIF. The VOR test is most important not only because of FAA requirements, but because the military 'Be Jammin.' Crew chiefs can rarely even do a ground check any more, as many VORs and VOTs were decommissioned. So, they need help. **Do you even know remember how to do a VOR check with your avionics?** The Extinguisher log is self-explanatory **but needs to be done monthly** as well as the CAPF 71. AIF guidance is in CAP Standard 72-4.



3g. NCWG Operations has positions open in the following areas:

- Wing Orientation Ride Coordinator (doesn't even need to be a pilot)
- Wing Aircraft Maintenance Officer (or assistant)
- Glider Operations Support (either as coordinators, tow pilots, or glider pilots). While the aircraft is based at KLHZ, it's a wing program, not just NC-145 responsibility.

4. AOB Restaurant PIREP: The Lumberton Great Tea and Bar-B-Que Community Restaurant has closed. Not only was there a small clientele, but someone removed the restroom signs. Apparently, patrons didn't know which bathroom to use. AOB aircrews should plan to bring their own lunch as travel time really detracts from the mission.

5. Thank you all for the support & taking the time to read this Riveting Reading. All the Riveting Reading newsletters are available on the Wing website (NCWGAP.org) under 'Members/Operations/Aircraft Maintenance.'

- Stryker -

Martin Heller, Lt Col, CAP
NCWG Aircraft Maintenance Officer

Attachments

1. Cold Weather Operations Guidance (3)