



**North Carolina Wing
Aircraft Maintenance
Nov 1, 2017, Ed #1
“Riveting Reading”**

**By Major Martin Heller -
NCWG/LGM**

To: All NCWG Operations Officers and Crew Chiefs

As the new guy in aircraft maintenance, I wanted to get some information out to the field to ensure we're all on the same sheet of music when it comes to keeping our fleet operational. I've got big shoes to fill, and for the most part, am trying to continue procedures in the same manner. As such, I've attached the NCWG Sup 2 to CAPR 66-1 which lists specifics of the NCWG maintenance program. To stay mission capable, flying the hours we do, (#1 CAP Wing in hours per aircraft), you and I need to stay on top of periodic and non-routine maintenance. Please note the following:

- 1) **First, Thanks** to all of you who watch over each of your aircraft. Even when everything works, the reporting on 17 aircraft is significant. Not just end of month reports and discrepancies, but **updating WMIRS on location moves is critical** so leadership knows assets are located. Also, remember to update the multitude of inspection due dates, once the aircraft returns from periodic maintenance.
- 2) **Communications (in):** Prefer you reach me by email to mheller@ncwgcap.org. Text messages are hard to organize and forward, let alone get the 'auto correct' from messing with it. It helps keep information tracked; and not comingled with my squadron NC170 email account.
- 3) **Communications (out):** We've updated the NCWG/Operations/aircraft maintenance/crew chief webpage, and I use those email links to inform both the primary and alternate crew chiefs on email subjects I generate. For subjects sent to me, it's more of reply all when appropriate.
- 4) **Response, realistically, will be a bit slower:** Without the four years of experience of my predecessor, and not sitting in front of a computer most daytime hours, most issues won't have an instantaneous answer. But I'll try to get back to you with 24 hours.
- 5) **New NHQ Maintenance Test program:** CAPNHQ is testing a program, requiring NCWG (and FLWG) to complete a CAPF 176 for any work not done at a consolidated maintenance facility (i.e. Southport, Danville, Greenville). They've been hit with too many surprise bills.

CAPNHQ require the estimate and maintenance facility information. Yes, it can slow the process. But knowing that, each aircraft assigned squadron should have the following two estimates ready:

- a) The price of a 50-hour oil/filter change (with Philips 20W50 oil)
- b) The price of 1-hour diagnostic fee. (To help when aircraft breaks on station)

6) **Maintenance Billing:** The email for maintenance shops to ac-Maintenance@ncwgcap.org. It keeps NCWG in the loop before forwarding on to CAP NHQ for payment.

7) **Maintenance tidbits:** Living by the maintenance facility, I get a firsthand look at problems and trends and will pass those along. For example;

- a. **Magneto checks....** How long do you run on one magneto? Probably like me, as soon as the RPM stops dropping (~3 seconds) before switching to the other magneto. Maintenance advises to run it for 15 seconds to see if the magneto is really working or just coasting. We just replaced a magneto coil on a magneto no one knew was about to die.
- b. **Rudder Trim:** There is only so much right rudder trim. Continuing to spin the wheel disengages the indicator from the system, leaving the pilot without knowledge of where the trim actual is positioned. It's happened three times now. When the tension gets tight, stop turning the wheel.
- c. **Windows Closed when aircraft is above idle RPM:** Perhaps due to our years of aerial photography before installing the photography windows, but the right window hinges are breaking. What appears to be a \$3 hinge is a \$600 fix since the door needs to be removed. A broken hinge is a grounding item since losing the window in flight could have serious aerodynamic, structural, financial and physiological repercussions. The winter months negate the motivation to keep windows open, but be sure to pass the word along.

8) **Maintenance Procedures:**

- a. **Drop-off heads-up:** Please continue to give me a heads-up, via email, on potential problems, or squawks maintenance needs to look at. It's easier and faster for them to have the information before they start in order to troubleshoot, and/or order parts ahead of time.
- b. **Plan on the aircraft being down 5 working days (if there are no surprises).** Yes, it should come back up faster and I'll advise. Calling me daily for updates neither endears maintenance to us, nor thrills me. When we need priority support, we always get it and we don't want to abuse that relationship. It's in the maintenance shop's interest to move aircraft as soon as possible, since they can bill, but they have other customers too.

9) **Aircrew transport.** With NHQ focusing on A9 sortie use, it's important that we are prudent with this funding. Getting oil changes locally is a good example if it costs less than moving

the aircraft. We'll try to combine trips when possible. Currently, CAPNHQ has faith in our management, and has rewarded us with well-maintained and equipped aircraft.

10) **Ferrying aircraft:** Two aircraft squadrons should plan to ferry their own aircraft and other squadrons should pair up with neighboring squadrons to move aircraft. That said, NC-170 is in better position to return aircraft from Southport since we are here when aircraft become available to get it back to you sooner. Trust me, I personally don't need to build hours, but it is a lot easier to coordinate.

Thanks for taking the time to read this, and keep somewhere for your continuity. I don't plan on writing a periodical since there are plenty of newsletters out there already. But there are occasions to get information to the field. Because, its only with your help that NCWG can maintain its maintenance program. If you have questions, you can reach me at 703-732-3264.

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Attachment

1. NCWG Sup 2, CAPR 66-1