

“Riveting Reading”

Civil Air Patrol North Carolina Wing’s Aircraft Maintenance

Sep 1, '19. Vol #22
By Major Martin ‘Stryker’ Heller



N7360C’s engine has returned. Along with a new right-side elevator, and trim tab, ‘Lola’ underwent an Advisory Directive (AD) on the airframe supports to the Wing struts.

Per WMIRS, N7360C is the sixth oldest airplane in the CAP fleet. With this work, she should outlive the others.

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

1. August’s highlights: Another month, nearly without incident, so hats off to everyone. Unfortunately, our project monthly flying hour total was only half of our normal average. Summer thunderstorms, and an AOB mission which did not materialize, didn’t help. Only Asheville met their numbers and even had a Save (of course.) Still, NCWG reached 4,000 flight hours for the year. It might drop us to second place in “hour per aircraft” behind Arizona, but probably not third place behind Puerto Rico. More than bragging rights, ‘Hours per aircraft’ is what earns or losses aircraft. NCWG has owned the #1 position for several years. So, please try to make effort to fly in September; especially with regaining night or IFR currency.

2. “Important-er” News from National Headquarters (NHQ):

2a. NHQ/DO sent out the following message last week for this new aircraft maintenance and flight release module in WMIRS; starting on/about 27 Aug 19:

*AMRAD is CAP’s new Aircraft Maintenance Repair and Documentation application in eServices. When it goes live AMRAD can be accessed through eServices <https://www.capnhq.gov> Select **Menu > Logistics > AMRAD**. It will take the place of most of the functions currently residing in the WMIRS Maintenance Module and adds several new aircraft maintenance tools to assist with flying and maintaining our CAP aircraft. It allows the entry of new aircraft discrepancies, transmits them to the Aircraft Maintenance Officer for validation and facilitates the flight release process. New aircraft maintenance requests can be entered, reviewed, parts can be ordered and NHQ approvals can be processed all in one location. It is designed to provide real-time visibility to aircraft status, open and closed discrepancies, aircraft inspection data, maintenance and repair requests, and parts orders and tracking data. Training for the new application is available in AXIS, CAP’s online training site at <https://www.capnhq.gov/CAP.LMS.Web/Default.aspx>. (See attached AMRAD & AXIS user manuals.)*

2b. End of Fiscal Year Close-out (NHQ/LGM): To keep good relations with our maintenance support, please contact and remind your local shops to check and submit/advise about any unpaid invoices, or unreturned cores. NHQ pays its bills pretty quickly, but with hundreds of bills being passed electronically, on occasion, some invoices may not get there, or perhaps, have not been submitted. In NCWG, we prefer to have the invoices forwarded to ac-maintenance@NCWGCAP.org. This email address allows us to see them yet still automatically re-transmits the invoice to CAP NHQ’s email at: CAPCONSMX@capnhq.gov. Snail mail is NHQ’s least preferred option but their address is: CAP/LGM, 105 S. Hansell St, Bldg 714, Maxwell AFB AL 36112.

2c. Flying Operations will end on Thurs, Sept 26th. It’s the standard, end of fiscal year, budget close-out stop.

3a. Maintenance Month in Review: Three new, 100-Hr/Annuals: **N7360C** (continued), **N99885**, **N938CP** and **N9930E**. **N99885** made its customary 57 Nm journey to Anderson, SC for its 100-hour/annual. Nothing significant to report. Elsewhere, **NC-170** loaned **N179CP** to **NC-048** in RDU as both **N938CP** & **N7360C** were in the shop. **N179CP** is nearly due for its engine change, and the replacement engine already arrived. As a two-airplane squadron, **NC-048/RDU** was in better position to fly off the rest of **N179CP**’s remaining 30 hours. **N179CP** & **N7360C** should swap back when Lola’s engine is done; expected the first week of Sept.

N938CP’s 100-hour/annual inspection had a big surprise, both bad and good. The bad news was that the nose gear lower support arm completely cracked. (Photos below). The good news is that the damage wasn’t worse. It was

'one-hard landing away from nose gear failure (read: prop strike).' There was no damage to the firewall, nor other components. Still, due to the nature of the break, a mishap investigation was required. A big thanks to NHQ/LGM who used their buying power muscle with Cessna to get a replacement lower nose gear bracket shipped within days, as the part wasn't available elsewhere. **N938CP** was also due its 500-hour magneto check and they replace one coil. A good discrepancy description helped identify the failing part. 'Max' also received new brakes, had tires rotated, new avionics switch, post lamp, besides all the nose wheel strut & linkages removal and repair work. Be glad you're not paying that bill; neither parts, nor labor.

N9930E was held at home station, awaiting **N938CP** to be completed. 'Thor' just arrived for its 100-hour/annual, and its bi-annual corrosion protection. We'll also relocate the autopilot closer to the pilot. While at home station, **N9930E** received a replacement TDFM136 Radio as it wasn't transmitting on the main channel. For those not familiar, the basic model reprogramming jack is on the back. The A & B models have a port on the radio's front panel (where the squelch button was). Since we needed to replace an TDFM-A (or TDFM-B) radio, and none are in stock, NHQ sent us the basic model. Thus, we'll had to install a 9-pin D-connector on the panel to make frequency/reprogramming changes. Such is the case with **N938CP** and both 'Max' and 'Thor' had a new 9-pin TDFM radio reprogramming plug extension installed. More on 'Thor's' annual in next month's Riveting Rag.



(Above left: A broken, lower nose wheel strut support; notice the second crack on the right flange. Center: Hard to see, but that nose wheel strut support is buried behind the nose wheel dampener. Right: the new replacement.)

N7360C (Lola's) Wing Strut AD was accomplished and the new right elevator installed. The engine returned from its crank shaft repair in Oklahoma, reinstalled, and returning to service as August ended. She'll need a test flight, before she is flown away from major maintenance. In related news, to meet squadron specific requests and wing needs, NCWG leadership re-assigned some aircraft between **KRDU, KLHZ and KRWI/KIXA**. We relocated most of those aircraft after coming through maintenance.

3b. More Maintenance Actions: **N908CP's** back-up attitude indicator is sitting on the shelf, awaiting its next oil change. **N99832's** new carburetor heater box is also waiting her next annual. One of our aircraft needed a battery charge; the crew chief inadvertently left the master on while conducting the end of month inspection. His advice, *'best to remove the gust lock and leave it on the seat before turning on the Master switch.'* In Sept, we expect **N179CP's** annual, TBO engine change & propeller overhaul, along with **N4813C & N99832's** 100hr/annual.

3c. Maintenance Admin Stuff: NCWG Supplement #2 to CAPR 66-1 (aircraft maintenance) had its annual review, and should be out in a few weeks. This means you'll have to swap some AIF page replacements. There were no significant changes to the document.

3d. Not your Fault; but you hear it anyway. NCWG has more than 180 pilots and flies an average of 420 hours per month. It's a tremendous volume of activity which we do safely, day in and day out. On occasion, 'stuff happens.' This periodical tries to educate/remind our population, to avoid more 'repeat stuff.' Sometimes it seems trivial, but it's important to the system. I just wanted to say 'thanks' for doing a great job, on each & every sortie. Non-pilots don't appreciate how much effort is required to take a CAP plane airborne. A rough estimate is that; (for an efficient pilot), every hour of flying requires two more ground hours which includes; preparation (Form 98, WMIRS, W&B, ORM) flight & mission planning, aircraft inspections, and post flight actions; fueling, paperwork completion (WMIRS). And the pilot is responsible for his/her life, the aircrew, and the airplane...so there's that!

4. Admin Tidbits: Aircraft Information Files (AIF) updates: Last update was: 23 April 19; more to come.

5. "Dip-Stick of the Month:" This month's coveted, dip-stick holder has been awarded to **NC-305 in Elizabeth City**. Besides protecting our northeast border from the Virginia hordes, they routinely meet their flight hour goals, and are easy to work with when coordinating maintenance actions. The dip-stick handle was just mailed to their squadron crew chief.



6. WMIRS Report; Pilot Hours: While we'll have to find the link now in AMRAD, here is a 23 Aug Pilot Summary Report, sorted for total hours (and limited to the top 25 of 182 pilots):

Nbr	Pilot	Unit	A Mission Hours	B Mission Hours	C Mission Hours	Total Hours
1	"Herring Jr, Morris C"	MER-NC-171	123.6	60.6	0	184.2
2	"Brown , William E"	MER-NC-145	81.4	43.1	5.8	130.3
3	"Courtney , Wallace C"	MER-NC-019	81.6	26.8	1.5	109.9
4	"Lesesne , Wendy J"	MER-NC-022	79.4	21.4	8	108.8
5	"Coffee , James E"	MER-NC-171	42.4	34.2	23.4	100
6	"Urbanek , Matthew D"	MER-NC-082	52	30.9	4.8	87.7
7	"Malott II, Daniel W"	MER-NC-305	48.2	26.6	1.1	75.9
8	"Fiedler , Harald P"	MER-NC-019	44.2	25.9	1.8	71.9
9	"Netherby , Richard J"	MER-NC-145	48.8	6.5	15.5	70.8
10	"Jones , Ricky R"	MER-NC-079	57.1	11.5	2	70.6
11	"Pfefferkorn II, James W"	MER-NC-022	44.3	23.5	1.2	69
12	"Walker , Jeffrey P"	MER-NC-023	50.6	5.3	11.4	67.3
13	"Browner , Jeremy T"	MER-NC-048	48.7	17.2	0	65.9
14	"Brandon , Robert M"	MER-NC-082	45.1	20.2	0	65.3
15	"Shelley , Gary M"	MER-NC-057	38.9	19.2	7.2	65.3
16	"Davis Sr, Raymond G"	MER-NC-019	23.2	37.3	2.2	62.7
17	"Lee , Jong I"	MER-NC-121	53.4	8.5	0	61.9
18	"Ish , Edward L"	MER-NC-305	26.1	35.2	0	61.3
19	"Noffke , Heino "	MER-NC-170	44.2	17.1	0	61.3
20	"Briola II, Donald A"	MER-NC-019	38.1	18.9	0.6	57.6
21	"Bennett , Michael T"	MER-NC-048	27.5	26.3	2.7	56.5
22	"Williams , Donald W"	MER-NC-048	37.8	15.3	3.4	56.5
23	"Mason , Robert C"	MER-NC-171	50.2	5.3	0	55.5
24	"Bailey , Christopher T"	MER-NC-145	46	5.1	4.1	55.2
25	"Lecompte , Malcolm A"	MER-NC-305	30	25.1	0	55.1

7. Thanks 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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2. Attachments:

1. AMRAD Users Guide 2.0
2. AXIS LMS Login Instructions V2