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15 November 2023

MEMORANDUM FOR RECORD

FROM: CAWG/CC

SUBJECT: Nondirective Publication Disclaimer – CAWGP 70-1-5

1. Attached to this memorandum is California Wing Pamphlet 70-1-5. This pamphlet is a nondirective publication, as that term is defined on page 18 of CAPR 1-2.
2. Compliance with this pamphlet is not mandatory. Any requirements or procedures explained in this pamphlet are either directed by other, directive publications or are provided as suggested methods, techniques, and/or best practices.
3. To the extent that the requirements or procedures explained in this pamphlet exceed the requirements and procedures directed by Civil Air Patrol, Pacific Region, or California Wing directive publications or by applicable law, a failure to comply with the requirements or procedures explained in this pamphlet shall not constitute a discrepancy for purposes of a Compliance Inspection or Subordinate Unit Inspection, nor shall they be grounds for termination of membership under CAPR 35-3.
4. Any directive language used in this pamphlet to describe a requirement or procedure which exceeds the requirements and procedures directed by Civil Air Patrol, Pacific Region, or California Wing directive publications or by applicable law, shall be interpreted as nondirective.

A handwritten signature in blue ink, appearing to read "C E Newton".

CRAIG E. NEWTON, Col, CAP
Commander

Attachment:
CAWGP 70-1-5, 15 November 2023

California Wing Pamphlet 70-1-5

Pilots' Guide to Maintenance Relocation Flights

15 November 2023

OPR: DO



1. Introduction. This pamphlet is meant to serve as an additional resource for pilots who will fly maintenance relocation on flights for CAP. Nothing contained is meant to override or replace any FAA or CAP regulations and/or the aircraft's pilots operating handbook procedures. This guide will cover two main points. The first is about the safety aspects of maintenance relocation flights, which involve an unusual risk of abnormalities. The second will dive into the logistics and steps to satisfactorily conduct these flights.

2. "Advanced" Preflights. Your preflight before the maintenance relocation flight must check certain items that are not typically checked in standard preflight inspections. The FAA Fastreads found [here](#) and [here](#) and the [NTSB Safety Alert](#) are meant to document some of the most common items to look for. While all pre-flights are meant to be thorough, these documents go over some of the other items to look for or to pay particular attention to. Every aircraft mechanic is human, and all humans will make errors. You must check if all the inspection panels secure, if the controls move the way they are supposed to, etc.

3. Good Habits. Besides the preflight, some good habits might be using all available runway for the initial takeoff, really paying attention to the engine-run up behavior and flying a few circles by the departure airport in case of abnormalities. This [NTSB report](#) involves a CAP glider that came out of maintenance with controls installed backwards. California Wing had a non-NTSB reportable mishap involved engine abnormalities right after takeoff when picking up an aircraft after maintenance.

4. Logbooks. When you are bringing an aircraft to drop-off to the maintenance facility, it is expected the aircraft maintenance logbooks will be onboard. Please do not take-off without verifying the logbook are onboard. If you don't know where they are kept, the assigned Aircraft Maintenance Officer (AMO) will be able to help. There are some cases when you won't bring the logbooks, but assume it is required unless told otherwise. When picking-up the aircraft from the maintenance facility, the same rule applies. Please make sure the logbooks are present before take-off. If for some reason they are not there, please make sure the AMO is aware and coordinate as appropriate.

5. Shop Operating Practices. It is strongly recommended to schedule an aircraft drop-off and/or pickup when the maintenance shop is still open for business. This is not always practical but there are some benefits. Any irregularities with paperwork or newly discovered mechanical issues could be resolved a lot simpler than after hours. You will often have the opportunity to talk to the individual who touched the aircraft and glean any helpful insights. It is sometimes hard to determine where to drop off and pick up aircraft. If the shop is open, this will make things easy. But some airports are much larger so it is not always obvious. Please make sure you know

where to go. It may not be right in front of the shop's hanger. Crews and mechanics walking in circles around the airport just to find an aircraft is not fun.

6. AMRAD and WMIRS. Another area of concern is ensuring what is in AMRAD matches what is in the actual aircraft maintenance logbooks. Any major discrepancies in AMRAD must be cleared before the flight release process for the return flight.

6.1. With how WMIRS needs grounded discrepancies cleared before release, many maintenance shops might email a picture of the new entries ahead of time. Whether they do or not, taking a few minutes to ensure the proper entries are there is important. If it has been a while since you have opened maintenance logbooks, ask someone knowledgeable.

6.2. Common things to look for is entries for all three to include airframe, power plant, and propeller following each annual. Were all the ADs checked for compliance? Are there A&P signatures on all new entries? If the shop doesn't work with the AMO ahead of time, you might have to work with the AMO remotely to finish this process before a flight release home.

7. Logistics. The primary point of contact for your pick-up/drop off should be the aircraft's assigned AMO. Also, each major contracted shop should have a local point of contact AMO who should be looped in. There will probably be a second aircraft with another pilot to facilitate picking up or dropping off a pilot. During a pick-up, while not required, a good habit might be to stay around for a little bit. If the picking-up pilot discovered an unresolvable paperwork issue or develops maintenance problems during the run-up or right after takeoff, the other aircraft can more easily take the pilot home. This also could put a pilot's mind at ease when discovering a minor abnormality. If they don't feel completely confident in taking the aircraft, they don't need to worry about a ride home.

Attachment 1: Excerpt from CAP Stan/Eval Newsletter January 2023 Edition

How to Conduct a CAP MX Flight – A9/B9/C9 (Lt Col M. Duc, CAWG)

You just received your Form 5 as a new CAP pilot, and you passed with flying colors. You have also completed the SQTR for Transport Mission Pilot (TMP) and have been approved. Your Check Pilot explains as a TMP you will be able to fly personnel and equipment in support of Air Force Missions and those missions are normally Air Force Funded. You think, great, I can maintain flying currency at Air Force expense, what a deal. Days later you are requested to deliver a CAP plane to maintenance (MX) and pick up another plane to be brought home. You suddenly begin to wonder what this mission involves because it was not covered in your initial training, and you didn't really question your Check pilot.

Does this sound familiar? It happened to me. I am sure I am not the only CAP pilot out there with the same questions. The checkout program for most CAP pilots focuses mainly on getting qualified to fly the plane and pass a check ride. In that regard, we normally do a good job, however, preparing a pilot for something as important as a Maintenance Flight is another thing. Ask yourself how familiar you are with 14 CFR 91.407 - Operation after maintenance, preventive maintenance, rebuilding, or alteration. How about CAPR 130-2? Many CAP pilots, unless they are owners, are not familiar with this section of 14 CFR. If you are doing any MX flights, you should read this portion of the CFR carefully and review CAPR 130-2. Your license could depend on it.

Here are some thoughts on how to conduct a successful A9 mission. This is my technique and not a CAP standard because I don't believe you will find any CAP procedures. A lot of this you may already know but if not, here is what I have learned:

1. Schedule your mission in WMIRS; normally an A9 but it could also be a B9, or C9. Allow plenty of time for the mission. If you think the oil change will take 1 hour...think again. Many of our pilots are also in a hurry and forget the big items (AROW) that could lead to an FAA violation!!
2. Schedule 3 missions: one for delivery, one for a test flight (optional) of the aircraft you are picking up, and one for the return home. Why 3 missions? Did you read 91.407 above!!
3. If the MX facility is more than 50 miles away...plan a XC based on your qualifications (VFR/IFR)
4. Find out who the MX officer is for your mission, not your local FRO, usually the wing MX officer.
5. Call the MX facility the day before and before departing be sure the plane is ready or will be ready for your planned arrival time. If you are being picked up by another crew, get the phone number of the PIC.
6. On the day of your mission:
 - a. Make sure all the documents are on board and do a thorough AROW check.

b. In addition to the AROW check, make sure all MX logbooks are on board.

- i. Prop Log
- ii. Engine Log
- iii. Aircraft Log

7. Get your release from the wing MX FRO before departure.

8. After successfully delivering the plane to MX, close out WMIRS and notify your FRO. If the plane is staying for an extended period, let the aircraft custodian know so the aircraft status is changed to Non-Mission Ready (NMC) status. This is recorded in WMIRS.

9. If you are picking up an aircraft, be sure to do a complete AROW check and verify all the MX logbooks are on board (see 6 above). I use my phone camera to record all MX logbook endorsements. If you have time, you could also update the AIF (pencil in changes) but that is not an FAA requirement.

10. Remember 91.407.

11. Call your FRO when you are ready for the test flight. Remember it is another sortie and must be released as any other flight.

12. Some MX issues require a test flight. However, you have the right as PIC to do a test flight for any MX done to the aircraft. After the test flight, simply follow the guidance in 14 CFR 91.407 and make a logbook endorsement in the airplane logbook. After you have determined the aircraft is airworthy (your responsibility, not the MX shop), you and any authorized passengers can fly the plane back. Remember there are CAP (not FAA) restrictions on carrying cadets after certain MX functions. Be sure you follow CAPR130-2 guidance. Your Squadron OPS MX officer should also be aware of these restrictions.

13. After you get home, close out your flight as you normally do and include the successful mission in WMIRS.

These are my thoughts on A9 missions, feel free to add, delete or ignore anything you think is not important, but whatever you do.... slow down and do it right!