

PA Wing LGM Guidance for making entries in the WMIRS Aircraft Discrepancy Log

The CAP Aircraft Discrepancy Log (ADL) application in WMIRS is designed to:

- Provide a standardized, central place for keeping accurate, up-to-date records of aircraft maintenance items that impinge directly on CAP aircraft airworthiness, functionality and mission-readiness.
- Provide a ready reference to open (i.e. not resolved) aircraft discrepancies for those who need it (e.g. Pilots, Aircraft Maintenance Officers, Operations Personnel, Commanders.)
- Satisfy the requirements of regulations (e.g. CAPR, FAR, CFR.)

It's easy to make an entry in the ADL. A pilot makes a discrepancy entry by completing a few fill-in-the blank boxes and making some point-and-click selections. Anyone familiar with WMIRS sorties should find using the ADL familiar and easy. There are decision-making challenges related to using the ADL and these are addressed with training and support:

- Understanding what constitutes a discrepancy that should be entered into the ADL, and just as importantly, what does not merit entry in the ADL.
- Making correct choices when entering discrepancy items, composing text entries and selecting from among point-and-click options.
- Currently, there are no written instructions for use of the Aircraft Discrepancy Log in WMIRS.
- Members' perceptions of how to use the ADL generally include an understanding that they must use the ADL to report items requiring maintenance on our aircraft. This broad definition means different things to different people. Not all maintenance items are discrepancies.

Training and written guidance will help all become familiar with the efficient and effective use of the WMIRS Aircraft Discrepancy Log:

ENTER the following in the ADL:

- Any item adversely affecting airworthiness of the aircraft:
 - Items that ground the aircraft which can include:
 - Failure of required Instruments and Equipment. Refer to FAR 91.205 Instrument and Equipment requirements available at this link: http://rgl.faa.gov/Regulatory_and_Guidance_Library/rgFar.nsf/FARsBySectionLookup/91.205 These are go/no go items for VFR flight. If these things fail, the plane is grounded until they're fixed. Users should click on "Grounded" under Status when making the ADL entry related to unresolved items of this type. However, some items in the regulation are conditional. There are other grounding items to consider in FAR 91.205. For IFR flight there are more, really additional, instrument and equipment

requirements. This regulation says a plane cannot be flown in IFR conditions if the “Gyroscopic pitch and bank indicator” (read that artificial horizon) has failed. And it contains some other conditional items: one electric landing light *IF* the aircraft is operated for hire. And there are some exceptions (e.g. can fly at night with a bulb out if headed to a place where it can be repaired); you’re probably familiar 91.205 and some of the exceptions and can use your knowledge of the FARs and flying experience to figure out the rest. And of course, there are always resource people to help with any questions: Group & PAWG DO, Unit and PAWG LGM.

- Engine roughness, failure to start, smoking, leaking (anything), out of range indications, unexpected noises, excessive vibration, etc.
- Pre-flight checklist items that fail their check, cannot be resolved by the pilot and result in cancellation of a flight. (e.g. flat tire that won’t inflate, large propeller nick, loose parts.)
- Previously unreported structural damage. (Paint scratches are cosmetic, not structural damage. While they should be reported to the LGM, they’re not cause for grounding unless extreme and indicative of other problems.)
- Any item the PIC determines to be a threat to the safety of flight.
- Inoperative aircraft or engine instruments and gauges not covered by FAR 91.205. Examples include: ammeter, voltmeter, gauges for vacuum, cylinder temperature, exhaust gas temperature, fuel flow, and fuel pressure, etc.
- Inoperative avionics or those with intermittent or functional limitations
 - Communications radios
 - Audio panel
 - Navigation radios including remote indicators on NAV radio, GPS, DME, ADF, Transponder, Stormscope, Autopilot, etc.
 - Flight instruments
- Items that limit flight capabilities:
 - Items that restrict night flight. (e.g. cockpit or instrument lights)
 - Items that restrict IFR flight. (e.g. low vacuum indicator)
- Items that limit Mission Capability:
 - Inoperative CAP FM radio
 - Inoperative Direction Finding Equipment

Some guidance about making entries:

- **IMPORTANT:** Create an ADL entry for each individual item. **Do not combine several items into one discrepancy.** This allows the PA Wing LGM to clear items as they’re resolved. If two items are on one entry and one is resolved while the other is not, the LGM can’t close that discrepancy
- Just the facts. No opinions. Document findings with objective observations of what you saw, heard, smelled, felt, etc. Include findings revealed by any troubleshooting. DO

NOT offer opinions. Examples:

- Do enter: Engine runs rough. Attempted to clear by running at 2000 RPM, leaning and running for two minutes; no change.
- Do NOT enter: The engine sputtered and farked at idle and didn't get any better. When I ran it up it was still rough and I tried a few things to make it better, but nothing worked; it's still bad. I think one of the spark plugs may be fouled or maybe it's time to get the mags rebuilt.
- Pay careful attention to the Status section selections and always consult with the Squadron Aircraft Maintenance Officer (SQ LGM) or PAWG LGM prior to selecting "Grounded" or "Deferred." Two heads are better than one and you can always pull in other resource people as needed. In any case, the SQ LGM ought to be advised anytime there's going to be a discrepancy entry. If he's not available, call the PAWG LGM.

DO NOT make an ADL entry for the following:

Report maintenance issues like these to the Squadron Aircraft Maintenance Officer (SQ LGM) or the PAWG Aircraft Maintenance Officer (PAWG LGM.) Phone numbers for these people are on the Administrative Preflight Checklist in the front section of the AIF.

- Non-flight and Non-Mission related items
- Items already reported (check the ADL for open discrepancies and also click on "Show all discrepancies" to see a list of things previously reported and closed.)
- Missing lose/removable equipment as detailed on the AIF cover checklist.
- Cosmetic items that don't affect flight or function of the aircraft. This can include: stains, wear or holes in upholstery, carpeting, headliner or cockpit interior. Cracks in plastic trim (so long as the trim remains intact and securely in place) peeling or chipping paint, missing or damaged CAP decals & placards, etc.
- Pilot serviceable items that the pilot is willing and able to fix. This can significantly reduce aircraft down time and save CAP lots of money on mechanics' labor! See CAPR 66-1 ATTACHMENT 1 – MAINTENANCE THAT MAY BE PERFORMED BY CAP PILOT. If you can fix something, are willing to do it and can secure needed parts that's GREAT! Thank you. Please call the SQ LGM or PAWG LGM for guidance on securing parts and reimbursement for any parts you buy. One of the biggest items in this regard are light bulbs. A CAP pilot can save us \$30-\$60 in mechanic's fees by changing a light bulb! In most cases all it takes is a screwdriver and a few minutes. Again see CAPR 66-1 Attachment 1 for maintenance that may be performed by a CAP pilot..
- Exhausted supplies (e.g. cleaning solutions, engine oil)
- Non-aircraft items (e.g. camera kit issues, hangar/base supplies and equipment)
- Complaints.

Here are some Aircraft Discrepancy Log reporting scenarios and decision-making processes:

- After a night landing at a remote airfield CAP pilot Bob notices the aircraft position light,

the white light on the tail, is not working. Bob knows FAR 91.205, Sec 17(c)(2) requires position lights for VFR night flight. Fortunately he's also familiar with this statement in Sec 17(c)(3) "In the event of failure of any light of the anticollision light system, operations with the aircraft may be continued to a stop where repairs or replacement can be made." Bob has changed this bulb in minutes in the past, but does not have a new bulb with him; he knows the aircraft supply shop across from the CAP hangar sells the bulbs for about \$5 and he can get one tomorrow and replace it. He determines he can fly home safely and does. Once at his home field he calls the SQ LGM and they decide he must enter a discrepancy limiting further night flight until he replaces the bulb. Bob replaces the bulb, verifies it works and calls the SQ LGM who works with the PAWG LGM to get that discrepancy closed.

- CAP pilot Sandy hears a ripping sound when she settles into the pilot seat for a proficiency flight. Examining the seat reveals a small tear in the seat fabric on the surface of the seat nearest the door. Wear from normal use has caused the fabric to give out at this spot. Sandy calls the Unit Maintenance officer and they decide that, while this item needs maintenance attention, it does not affect the airworthiness of the aircraft. They agree the Unit Maintenance Officer will bring this item to the attention of the PAWG LGM who will act to address the repair. No discrepancy entry is needed, Sandy may fly the plane.
- CAP pilot David smells electrical smoke when he turns on the mission master after engine start, there's an audible a click and he notes the "Mission Annunciator" breaker has popped. David does not try to reset the breaker, the smell of smoke abates quickly and the CAP FM radio and Becker DF are working properly. He notes there are no lights on the radio switches just above the power controls. David determines he can fly his mission safely and upon return contacts the SQ LGM regarding this finding. They determine there must be a discrepancy entry so future aircrews know the radio switches have no lights and agree David will make the entry and agree on verbiage. Here is that entry: "Smell of electrical smoke when mission master turned on after engine start, "Mission Annunciator" circuit breaker popped." David clicks "deferred" in the status section, "other" under limitation and enters the following in the "Actions taken" box: "Mission annunciator breaker zip tied in open position, no lights on radio select switches, see tab 7 AIF for switch position guidance." This will be addressed by the PAWG LGM who will make arrangements for repair of the mission annunciator.
- CAP Pilot Jack returns from a long flight to find there are no cleaning supplies available in the hangar for post-flight cleanup of the airplane. Jack calls the SQ LGM who apologizes for not replenishing materials in a timely way and promises to run them over the hangar later. He assures Jack he'll clean up the plane at that time. No discrepancy entry is needed.
- Cap pilot Helmut enters a discrepancy complaining, "No FRO was available to release me for my flight home after attending a CAP training meeting!" The Region Commander contacts the Wing Commander who contacts the Wing DO who contacts the Wing LGM (the only person who can close a discrepancy) relaying the message that this is an inappropriate use of the ADL as this matter had nothing to do with aircraft airworthiness or mission readiness. (Names have been changed, but this really happened!) The LGM

clears the discrepancy and the DO counsels the pilot about the correct procedure for reporting Flight Release challenges.

- Here's a test: On pre-flight you notice nothing happens when you switch on the master at that check list item. What do you do? Send your solution to this maintenance challenge to LGM@PAWG.CAP.GOV and I'll send you the ADL briefing on this item.

Thank you for your dedication to CAP flying and for your help in keeping our aircraft safe, airworthy and mission-ready!

One important note: if there's a mishap that involves aircraft damage make Mishap Reporting the FIRST priority. You must immediately call the Wing Commander following any Mishap. See CAPR 62-2 Mishap Reporting and the PA Wing CAPR 62-2 Supplement 1 found in every Aircraft Information File (AIF) and here:

http://capmembers.com/media/cms/R062_002_211E97E99C6A4.pdf

http://pawg.cap.gov/sites/default/files/pubs/PAWG-Supp-62-2_Jan14.pdf

Call the Wing Commander, Wing Safety Officer and your unit commander in the wake of any mishap; you can't go wrong if you do this immediately and they will assist you in all ways possible on subsequent required actions. Defer any ADL until the requirements for Mishap Reporting are met. Then please call me for guidance with associated entries in the ADL.

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