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CFI to CFI

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QUESTIONS, COMMENTS, SUBMISSION?

Send a note to CFINEWSLETTER@AOPA.ORG.

Thanks!

BROWSE THE PREVIOUS ISSUE:

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nxtbook.com/nxtbooks/aopa/cfi_vol9issue1

MID-ATLANTIC AND SOUTHEAST CFIs LISTEN UP!

The AOPA Air Safety Institute will hold In-Person Flight Instructor Refresher Courses (FIRCs) in Frederick, Maryland, and Jacksonville, Florida, July 14 and 15:

- **Mid-Atlantic.** Fly in to AOPA headquarters at Frederick Municipal Airport (KFDK) for the Frederick FIRC held at the AOPA You Can Fly Academy. You'll enjoy a light breakfast and lunch cookout on the premises on Saturday, and a light breakfast on Sunday. Get details and register for the event.

https://www.aopa.org/forms/event-registration/FIRC_MD_180714

- **Southeast.** Get a chance to mingle with fellow instructors when you attend the Jacksonville FIRC held at the DoubleTree by Hilton hotel adjacent to Jacksonville International Airport (KJAX). Get details and register for the event.

https://www.aopa.org/forms/event-registration/FIRC_FL_180714



WE NEED YOUR SUPPORT!

Educating pilots on improving their skills and enhancing GA safety is a core tenet of AOPA's Air Safety Institute and its educational programs. Your contribution funds these activities and ensures we continue to address the needs of pilots everywhere. Show your support with a donation today (aopafoundation.org/donate).

CFI to CFI will consider unsolicited submissions. All manuscripts and contributions should be sent to cfinewsletter@aopa.org. Reasonable care will be taken in handling manuscripts, but the newsletter assumes no responsibility for material submitted.

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CAN I FLY?

MELS, KOLS, AND THE REGS

BY JASON BLAIR



“CAN I FLY IF THIS EQUIPMENT ISN’T WORKING?” IT’S A COMMON RESPONSE I GET FROM CHECKRIDE APPLICANTS when I ask them if something is not working properly on their aircraft: Would they be allowed to fly themselves home without needing to fix it?

The question sounds simple, but it can easily end up driving students deep into confusion about Minimum Equipment Lists (MELs), Master Minimum Equipment Lists (MMELs), Kinds of Operation Lists (KOLs), and more confusion when the applicant tries to discuss Federal Aviation Regulation (FAR) requirements for different types of operations under FAR 91.205. Oh, and asking about these is required on most FAA practical tests, so your students should count on being asked questions about these.

Many applicants get confused about the applicability of FAR 91.205. This really is more about if the equipment listed in the regulation is “installed” in the aircraft, it has to be working to

conduct the type of operations planned (VFR or IFR). If one of the items listed in that regulation isn’t working, **no** MEL, MMEL, or KOL will allow a pilot to fly an aircraft without it operating.

Assuming those basic instruments are still functional, if anything else isn’t working, it is up to the pilot to determine if the aircraft has a MEL (this would be an FAA approved document specific to the aircraft tail number), if there is an MMEL that the manufacturer publishes, or if there is a KOL that applies to the make and model of aircraft. Most general aviation aircraft don’t have MELs. MMELs are not available for every aircraft, but a few common general aviation training aircraft do have them. The Piper Seminole is a great example. A quick search of the FAA website for MMELs allows you to find drop-down lists of the aircraft makes and models that have been published and listed with the FAA. But this also requires that the FAA has approved it for use with the aircraft and is something that isn’t commonly done by

an operator. KOLs are a more modern invention and are beginning to be found in more POHs for newer aircraft. Whichever one the aircraft has is the one you will use to determine if you can fly when something isn’t working—think of them as a “permission list.”

MELs, MMELs, and KOLs don’t tell a pilot what has to be working, they tell them what is allowed to be “not working.” If it isn’t listed in the document, was originally installed, or is a part of a type certificate for an aircraft, it has to be working. To fly without something exempted on one of these lists requires involvement of a maintenance professional, probably a disabling of the piece of equipment, some placarding, and potentially a special flight permit.

It really is that simple: These are lists that help a pilot determine if they can fly when something isn’t working, or if they need to get help from maintenance!

ONE EXAMPLE I USE IN PRACTICAL TESTS IS THE MMEL ON THE PIPER SEMINOLE. WHILE FAR 91.205 INDICATES THAT AN AIRCRAFT MUST HAVE A GENERATOR OR ALTERNATOR, THE SEMINOLE HAS TWO. SO, I ASK IF WE COULD FLY IF ONE WASN’T WORKING WHEN WE RAN THE AIRCRAFT UP FOR A PREFLIGHT.



I HAVE EVEN HAD PEOPLE TELL ME THAT THEY COULD LEGALLY FLY AN AIRCRAFT WITHOUT AN AILERON IF THE AIRCRAFT DOESN'T HAVE A MEL, MMEL, OR KOL SINCE AILERONS AREN'T LISTED IN FAR 91.205.

One example I use in practical tests is the MMEL on the Piper Seminole. While FAR 91.205 indicates that an aircraft must have a generator or alternator, the Seminole has two. So, I ask if we could fly if one wasn't working when we ran the aircraft up for a preflight. Many times, I get applicants struggling through the MMEL (if they know how to even find it) and find that the document is silent on the topic of alternators. If an item isn't listed as able to be not working, or in this case, perhaps if 1 of the 2 were not working, it means the item must be functional for us to be able to fly. Another example on the same aircraft lists the cockpit shoulder harnesses. It says that there are two installed, and that the right side harness may be inoperative as long as that seat remains unoccupied. I know this sounds simple, but it really does end up a major confusion point on many practical tests.

ATOMATO FLAMES, FLAPS, AND GRAB CARD

HERE ARE THREE MNEMONICS TO REMEMBER FAR 91.205 REQUIREMENTS.

DAY VFR EQUIPMENT:

Anticollision lights
(aircraft manufactured after 3/11/1996)

Tachometer

Oil pressure gauge

Manifold pressure gauge

Altimeter

Temperature gauge
(liquid-cooled)

Oil temperature gauge
(air-cooled)

Fuel gauge

Landing gear position

Airspeed indicator

Magnetic compass

EL

Seat belts

NIGHT VFR EQUIPMENT:

Fuses
(circuit) or circuit breakers

Landing light
(if for hire)

Anticollision lights

Position lights

Source of electricity

IFR EQUIPMENT:

Generator

Radios

Attitude indicator

Ball

Clock

Aadjustable altimeter

Rate of turn indicator

Direction gyro

MMEL

U.S. DEPARTMENT OF TRANSPORTATION		MAINTENANCE EQUIPMENT LIST	
FEDERAL AVIATION ADMINISTRATION			
AIRCRAFT:	REVISION NO.:	PAGE:	
CIRRUS MODEL SR-44	5	25-3	
	DATE: 01/31/2003		
SYSTEM & SOURCE/ISSUE NUMBER	1. ITEM	2. NUMBER INSTALLED	3. NUMBER REQUIRED FOR DISPATCH
25. EQUIPMENT/FINISHING			4. COMMENTS OR EXCEPTIONS
1. Cockpit Shoulder Harness	B	2	1
2. Passenger Seat	C	0	0

KOL

Kinds of Operation

The SR20 is equipped and approved for the following type operations:

- VFR day and night.
- IFR day and night.

Serials 1337 and subsequent with SFV configuration: The airplane is equipped and approved for the following type operations:

- VFR day and night.

Kinds of Operation Equipment List

The following listing summarizes the equipment required under Federal Aviation Regulations (FAR) Part 23 for airworthiness under the listed kind of operation. Those minimum items of equipment necessary under the operating rules are defined in FAR Part 91 and FAR Part 135 as applicable.

In another aircraft example, the Cirrus SR20 has a KOL and directs a pilot differently depending on if they will be operating at some points in IFR or VFR conditions. For example, the KOL allows a pilot to operate with only Alternator or Battery 1 operational in VFR flight, but requires that both Alternator and Batteries 1 and 2 be operational if the pilot will be operating in IFR conditions.

NO NEED TO CONFUSE THIS ANYMORE, FOLKS. IF THE DOCUMENT ALLOWS THE PILOT TO OPERATE WITH SOMETHING INOPERATIVE, IT WILL SAY SO.

Sometimes I get people driven into very crazy positions on this when they don't understand how to use the documents. More than once, I have even had people tell me that they could legally fly an aircraft without an aileron if the aircraft doesn't have a MEL, MMEL, or KOL since ailerons aren't listed in FAR 91.205.

No need to confuse this anymore, folks. If the document allows the pilot to operate with something inoperative, it will say so. If the pilot doesn't have one of these documents, or available documents are mute on a component or system, he or she should consider that it would need to be working to fly.

Teach your students to use these documents as mentioned and describe how they would respond when asked about operating with inoperative equipment during their next practical test. This knowledge will certainly improve their chances of passing their next test.

Jason Blair is an active single and multiengine instructor and FAA designated pilot examiner with 4,900 hours total time and 2,850 hours instruction given. As examiner, he has issued more than 800 pilot certificates. He writes for multiple aviation publications and actively works within the general aviation industry.