

Clarification of Runway Markings at 52F

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Now that we have a new runway with standard markings, some pilots have had questions about them. This article will answer those questions and provide the background information necessary to understand the reasons for the answers.

The purpose of having standard markings is to enhance safety and reduce the risk of liability. In general, pilots should be familiar with the meaning of standard markings and comply with them. 52F's markings conform to the standards for small airplanes as described in FAA Advisory Circular (AC) 150/5340-1L, Standards for Airport Markings. These markings accommodate airplanes in Aircraft Approach Category A (AAC-A), Airplane Design Group I (ADG-I), and Taxiway Design Group IA (TDG-1A)¹ for a visual runway.² If the dimensions of your airplane exceed the limits of TDG-1A (see footnote), exercise extreme caution when turning onto either runway and adjust as necessary to keep the main landing gear on the asphalt. 52F cannot conform to the standards for any larger or faster airplanes because of the proximity of structures and other obstacles.

One of the most frequently asked questions is whether pilots are required to honor the markings. As unsatisfying as it might be, that answer is maybe. A better question, perhaps, is whether pilots *should* honor the markings and why. Answering this question requires answering two other questions: (1) What are the airport's responsibilities? and (2) What are the pilot's responsibilities? Let's address each in turn.

I. AIRPORT RESPONSIBILITIES

The POA has a duty to operate the airport in a reasonable and prudent manner. To determine what is reasonable and prudent for 52F, we must consider its status as a privately owned, public use airport.

As a privately owned airport that receives no federal funding and does not provide passenger service, 52F is not required to have any runway or taxiway markings. Even the old runway had markings, but they were all non-standard and violated various FAA recommended separation distances. Although local pilots were generally accustomed to them and generally had some idea what they meant, the combination of having non-standard markings and no markings where there should have been presented four potential issues: pilot confusion, a false sense of security, risk of accident, and risk of liability to the POA and the property owners.

For standard airport markings to be mandatory, 52F would have to meet the following criteria:

¹ TDG-1A markings will accommodate airplanes with a maximum main landing gear width of 15 feet and a cockpit to main landing gear distance of 20 feet. See FAA AC 150/5300-13A (2/26/2014) Table A7-1, p. 269.

² “*Visual runway* means a runway intended solely for the operation of aircraft using visual approach procedures, with no straight-in instrument approach procedure and no instrument designation indicated on an FAA-approved airport layout plan, a military service approved military airport layout plan, or by any planning document submitted to the FAA by competent authority.” 14 C.F.R. §77.3.

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1. Have a runway certificated under 14 CFR Part 139 for passenger service, or
2. Receive federal funds through the Airport Improvement Program (AIP), or
3. Receive revenue from the Passenger Facility Charge (PFC) Program.

52F meets none of these criteria. Therefore, 52F is not required to have standard markings or any markings at all, but their existence severely limits any attempt to hold the POA and the property owners liable for damages for failure to provide standard markings. Pilots tend to place the blame on any target available if they have an incident that causes damage to their airplane, its occupants, or other persons or property. Standard markings go a long way toward protecting the POA and its members from liability.

As the entity legally responsible for airport governance and operation, the POA's mission closely parallels the mission of public airport authorities, i.e., enhance safety and improve efficiency. Let's review some of the events at 52F to see why the POA should take reasonable steps to enhance safety.

On November 3, 2012, Frank Laudo and his wife, Heather, pulled out in front of and hit a Cessna 172 when its student pilot was attempting to land on Rwy 17. See image below. Frank Laudo was injured and sued everyone in sight, including the POA. Among his many claims, Laudo accused the POA of failing to provide adequate airport and runway markings. Fortunately, I was able to demonstrate to the Laudo's attorney that the POA had no management authority and had nothing to do with airport markings, so she dropped the POA as a defendant. That is no longer the case. The POA and the property owners are now directly responsible for all aspects of the airport's condition.



Two other incidents that year resulted in two fatalities. On September 22, 2012, Charlie Yates and Chris Pratt were killed while taking off on Rwy 17. Then on October 12, 2012, a Little Toot crashed on takeoff on Rwy 17. Fortunately, the pilot suffered only minor cuts and bruises. A rather unique event took place on May 15, 2008 when a Piper Cherokee (PA-28) landed on top of a Stinson 108-3 on takeoff roll on Rwy 35. The instructor in the Piper and both pilots were

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miraculously uninjured. According to the NTSB report, the cause of the accident was the Stinson pilot's "inadequate visual lookout, but a contributing factor was the trees/visual obstructions along the runway's approach path."



In every case, those involved or their heirs could have sued the POA regardless of whether the POA had anything to do with the accident. The time and expense associated with answering such lawsuits is almost always substantial.

Enhancing safety and having the ability to defend against these types of claims are the primary reasons for having standard runway markings and properly displaced thresholds. Having non-standard runway markings would have the effect of waving a red flag in front of any possible plaintiff's attorney while yelling "Sue us, sue us!" with a high likelihood of being held liable for the damages. A court would likely consider non-standard or non-existent markings unreasonable for a public-use airport.

As a privately owned but *public use* airport, the POA and the property owners remain subject to liability if the POA fails to operate the airport in a reasonable and prudent manner and injury occurs. According to the Airmen's Information Manual (AIM):

Uniformity in airport markings and signs from one airport to another enhances safety and improves efficiency. Pilots are encouraged to work with the operators of the airports they use to achieve the marking and sign standards described in this section (emphasis added). AIM 2-3-1(b).

Despite this unequivocal admission that the existence of and adherence to FAA marking and sign standards is not always mandatory, the guidance in the AIM is presumptively reasonable, while ignoring its guidance may be considered careless or reckless under some circumstances. The Flight Information Publication Policy section of AIM states:

- a. It is a pilot's inherent responsibility to be alert at all times for and in anticipation of all circumstances, situations, and conditions affecting the safe operation of the aircraft.
- d. This publication, while not regulatory, provides information which reflects examples of operating techniques and procedures which may be requirements in other federal publications or

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regulations. It is made available solely to assist pilots in executing their responsibilities required by other publications.

One of those other publications is AC 150/5340-1L. It states:

The FAA recommends the guidelines and standards contained herein for the marking of airport runways, taxiways, and aprons. The use of these standards is the only method of compliance with the marking of runways, taxiways, and aprons for airports certificated under Title 14 Code of Federal Regulations Part 139, Certification of Airports (Part 139). These standards are ... to be implemented at all Part 139 certificated airports. Further, use of this AC is mandatory for all projects funded with federal grant monies through the Airport Improvement Program (AIP) and/or with revenue from the Passenger Facility Charge (PFC) Program. (emphasis added)”

According to the FAA, “Compliance with 14 CFR Part 139 is mandatory for an operator of a U.S. airport that chooses to serve air carrier operations covered by the regulation. (An airport operator may be a public entity, such as a county or city, or a private organization or individual.)

“Specifically, Part 139 applies to operators of airports in any State of the United States, the District of Columbia, or any territory or possession of the United States serving passenger-carrying operations of an air carrier certificated under 14 CFR Part 121 and 14 CFR Part 380 if

- Scheduled passenger-carrying operations are conducted in aircraft designed for more than 9 passenger seats, and
- Unscheduled passenger-carrying operations are conducted in aircraft designed for at least 31 passenger seats.

Airport operators can choose not to be certificated under Part 139. Part 139 is mandatory only if the airport operator chooses to serve the air carrier operations described above.

Again, 52F is not certificated under Part 139 and receives no funds from AIP or revenue from PFC. Thus, AC 150/5340-1L and the sections in the AIM that deal with airport markings are merely advisory. Nevertheless, proper runway markings will protect the POA and its members from claims against them if, for example, a pilot lands on our runway, runs off the end, tears up aluminum or hurts someone, and tries to recover damages from the POA or its members.

A reasonable and prudent airport manager would ensure that the runway has standard markings that accommodate obstacles in the Runway Safety Zone (RSZ), Runway Object Free Area (ROFA), or any other condition that would have any effect on takeoff, approach, and landing safety. 52F’s markings accommodate both the north and south roads that traverse the ROFA and adhere to the runway hold-short standards for runways designed to Aircraft Design Category I for small airplanes, which provides the narrowest spacing requirements under the guidelines. Keep in mind, though, that the taxi lines at the runway turn-ins are not suitable for airplanes with a main landing gear width greater than 15 feet (e.g., Cessna 414 @ 17.08 ft).

Now let’s turn to the pilots and their obligations under 14 C.F.R. §91.13 as it might apply to pilot compliance with airport markings.

II. PILOT RESPONSIBILITIES

If the taxiway and runway markings at 52F are not required, then the question becomes whether disregarding them could constitute careless or reckless operation of an aircraft in violation of 14 C.F.R. §91.13. That answer is highly fact sensitive and so the answer is a definite maybe. 14 C.F.R. §91.13(a) states:

Aircraft operations for the purpose of air navigation. *No person may operate an aircraft in a careless or reckless manner so as to endanger the life or property of another.*

This regulation contains six elements.³ FAA investigators must support each element with one or more items of proof (IOP) to establish a violation. For the purposes of this article, I will discuss only the last three elements: Careless or reckless, Endangerment, and Life or property of another.

Careless or reckless: *Careless* indicates a lack of care, an act a reasonably prudent person would not commit if mindful of the potential consequences. Careless conduct has the following attributes: Failure to exercise ordinary, proper, or reasonable care. Failure to recognize a risk. No awareness that a risk was being taken. Should have been, but was not, aware they were taking a risk. Actions were based upon an expectation of correct conduct. No awareness that an error was going to be made. No intent to engage in the misconduct. An example of careless conduct would be a pilot's lack of vigilance to observe and avoid other air traffic. In this respect, the pilot must clear his position prior to starting any maneuver, either on the ground or in flight."⁴

Reckless can be alleged when there is evidence that a person intended to do what they did. It is not necessary to prove, or even allege, that they knew that their action was a violation of any regulation. Reckless conduct has the following attributes: Wanton abandonment of concern for the potential consequences of an act. Conscious disregard of a known, visible, significant, or unjustifiable risk. Substantial disregard of accepted safety standards so as to potentially or actually endanger the life or property of another. An example of reckless conduct would be a pilot pulling out in front of a landing aircraft when the pilot knew or suspected that doing so would interfere with the landing aircraft.

Endangerment: It is not necessary to show actual endangerment, evidence of potential endangerment is sufficient. "Proof of actual danger is unnecessary, for the regulation[s] prohibit any careless or reckless practice in which danger is inherent."⁵ "[I]t is well-established that 'potential endangerment' is sufficient to sustain a violation of §91.13(a)."⁶

Life or property of another: There must be evidence that the endangerment was to the *life or property of another*. If an aircraft flown solo was entirely owned by the alleged violator, and if there is no nearby property or persons to be endangered, there is no violation.

³ FAA Order 2150.3, Appendix E, ¶ 1(a).

⁴ *Id.*

⁵ *Roach v. National Transp. Safety Bd.*, [804 F.2d 1147](#), 1157 (10th Cir.1986), cert. denied, 486 U.S. 1006, 108 S. Ct. 1732, 100 L. Ed. 2d 195 (1988) (quoting *Haines v. Department of Transp.*, [449 F.2d 1073](#), 1076 (D.C.Cir.1971)).

⁶ See, e.g., *Hinson v. Evanko*, No. EA-4221, 1994 WL 409525 at * 4 & n. 11 (N.T.S.B. July 19, 1994) (citing cases).

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Applying these standards to the question of whether a pilot *should* honor the taxiway and runway markings, the answer is almost always yes. The mere act of ignoring the markings, however, would not be sufficient to establish a §91.13 violation. For aircraft larger than TDG-1A (main landing gear width greater than 15 feet), turning inside the taxiway markings at the runway turn-ins with one of the main landing gear encroaching into the no-taxi area might be necessary to keep the other main landing gear on the asphalt.

52F's new runway has the same load-bearing capability throughout its 3,470-foot length (3,250' declared distance). Thus, there is no structural reason not to use the full length for takeoff if necessary. As for landing distance available, the displaced thresholds are required by physical obstacles near the approach ends of each runway. Thus, pilots should honor them unless an emergency dictates otherwise. In general, pilots who disregard the markings do so at their own risk. If an accident occurs, the POA and property owners would not be liable for damages based on a claim that the airport has non-standard or improper markings.

With this background, let me now address three other frequently asked questions.

1. Given that the runway hold-short lines are no longer in the old runup area, where should I perform my runup?

Answer: Perform your runup either on the taxiway before the hold short line or in the old runup area after you've checked for landing traffic. According to the FAA, "When you are operating at a non-towered airport, you may cross [the hold-short line] only when the runway is clear of traffic, and then you should proceed with extreme caution."⁷ If you decide to use the old runup area inside the hold-short markings regardless of landing traffic, you risk a potential violation of §91.13.

This is an example of where the old markings created a false sense of security. In many circumstances, honoring the old runway markings could have resulted in a §91.13 violation. Abiding by non-standard markings or improperly placed markings would not save a pilot from a §91.13 violation if all the elements were otherwise met.

2. What do the yellow bars mean in the old runup areas? Can we taxi in those areas?

Answer: Yes, you can taxi in those areas unless you would interfere with landing traffic. In fact, an airplane with a main landing gear width greater than 15 feet⁸ and a cockpit to main landing gear distance greater than 20 feet might need to taxi in those areas to keep the main landing gear on the asphalt. So, for pilots of these larger airplanes, a potential violation of §91.13 could occur if the pilot stayed on the yellow centerline at the runway turn-ins. Officially, the yellow bars indicate a no-taxi zone. They are necessary in our situation to preserve the 125-foot minimum distance from runway hold-short markings to runway centerline, but you can use those areas just as you did before if you do not interfere with landing traffic. There would be no risk of violating §91.13 merely by taxiing in these

⁷ FAA Runway Safety: A Best Practices Guide to Operations and Communications; www.faa.gov/go/runwaysafety

⁸ Cessna 414 main landing gear width is 17 feet.

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areas unless doing so would endanger the life or property of another for some other reason.

3. Is it legal to land before the displaced thresholds?

Answer: Maybe, but not advisable. According to the AIM, “Displacement of a threshold reduces the length of runway available for landings.”⁹ AIM provides only one caveat: unless an emergency requires landing in front of them.¹⁰ In general, landing in front of the displaced threshold suggests that your approach was nonstandard for some reason. For most aircraft, it is difficult to land before the displaced threshold from a stabilized, on-speed approach on a normal glide path with a proper aim point. Therefore, although technically legal under some circumstances, abiding by the AIM is presumptively reasonable and not abiding by the AIM could be considered careless or reckless if doing so potentially or actually endangers the life or property of another.

In conclusion, 52F is not required to have standard runway markings but the POA chose to install them to enhance safety and limit liability. In general, pilots should honor them even if it would not be technically illegal to ignore them in some circumstances. The exceptions, of course, include airplanes larger than TDG-1A or in an emergency. Pilots should always keep §91.13 in mind. Exercising good judgment in all aspects of aircraft operation is the best way to avoid any allegations of careless or reckless conduct and allows us all to enjoy aviation and keep everyone safe.

⁹ AIM 2-3-4, ¶ 2 (4/3/2014).

¹⁰ AIM 6-1-1(a), (10-12-2017).