

# FARs and Bowling Balls

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*It is the intent of this program to identify not only a direct violation of FAR's, but to also identify areas that may simply be a really "bad idea." We will use it to develop some "best practices" to become safer pilots. This entire scenario is frictional and does not represent any actual flight or FAA investigation.*

The FAA has received a complaint from a private citizen involving a low flying twin engine aircraft throwing bowling balls out the door over Lake Michigan. This complaint triggered an investigation by the FAA and the following is the factual report of the background leading up to the incident. The person filing the complaint was commercial fisherman and had recovered one of the bowling balls from a fish net. He witnessed the drops while on his boat parked at a dock about one mile from the actual drop sight.

You have just been hired by the FAA to review the data collected for the case to see if any regulations were violated during the alleged event. In addition, the FAA would like to know if any over violations occurred during the events that lead up to the complaint.

If a problem, issue, or violation did occur, note the violation by number in the margin of the report. Assume today's date is 08-01-2022

You do not get credit for 14 CFR Part 91.13 concerns.

## BACKGROUND INFORMATION COLLECTED BY FAA

1.

### From the pilot's certificates

Name: Fred Wildman Smith

Pilots Certificate Address: 123 Street, Toledo, OH 43123

DOB: 09-01-1942

Sex: Male

Citizenship: USA

Certificate number: 1234859

FAA Certificate: Private Pilot, Airplane Single Engine Land, Instrument Airplane,

Pilot Certificate issued: 04-01-1962

Medical: First Class, issued 07-04-2022 Limitations: Must wear corrective lenses for near vision

SODA: Blind in one eye, flight test passed, limited to day time flights only, no expiration

Notes:

FAA certificate is signed only as "*F. W. Smith*"

### Case Background:

2. Fred Smith, a private pilot with SEL privileges had not flown for six years when he decided to get back into it as a way to celebrate his upcoming 80<sup>th</sup> birthday. Fred soloed on his 16<sup>th</sup> birthday in a Piper Cub and went on to fly for almost 200 hours in his Piper 140 before selling it and buying a new Piper Arrow 180 in 1968. He flew the Arrow for an additional 143 hours and sold it six years ago after losing his left eye while attempting to hand prop the aircraft without anyone else present.

3. Fred realized that he needed a flight review, so he called his grandson Ralph Smith on July 4, 2022 to get the sign off. Ralph had just completed his CFII check ride the week before. It was his first and only instructor certificate. He did not have a CFI since he had no desire to teach primary students. They met at 05:00 at a local breakfast spot and reviewed the current FAR's over a 90 minute time frame over a beer.

4. Later that same day at 15:00, they went out to the local FBO and rented their “open air desktop” simulator approved as a BATD for two hours. Ralph wanted Fred to wear a view limiting device, but Fred refused since it was a simulator. The FBO had just installed a new X-Plane software program that the chief instructor had picked up on Ebay. It really improved the realism of the device when compared to the factory original program. They completed 2 VOR approaches, one circling GPS approach, and 3 ILS approaches. All approaches were flown with the autopilot on. In addition, they completed several holds, two course intercepts, and one unusual attitude.

5. After the simulator session, Ralph went back to his house to pick up his Pilot Certificate and Medical. He could not find his Instructor Certificate at the time. The two of them then returned to the airport where they rented a Cessna 152. The rental was in Ralph’s name since he was already approved by the FBO to fly the aircraft. As a result, Ralph insisted that he fly left seat. Since Fred had not flown for a long time, they used 4/10 of an hour on the hobbs meter before taking off. With Fred doing all of the flying from the right seat, they completed several stalls, turns, and two touch & goes, followed by a full stop landing. Ralph did all of the radio work since Fred did not like airports with control towers and they were flying from an airport with an operating control tower staffed by a contract company for the FAA. When they paid for the flight they had ended up with exactly 1.1 hour on the Hobbs meter.

6. At the end of the flight, Ralph made the two following entries on two pieces of plain white paper and told Fred to tape them both into his logbook when he got home. No other entries were made.

**07-04-2022 I certify that Fred Smith, holder of private pilot certificate 1234509 has completed a flight review in accordance with FAR 91.56(e).**

*Ralph Smith* 127899923 CFII expires 6/22

**07-04-2022 Mr. Fred Smith, holder of pilot certificate 1234059 has satisfactorily completed the instrument competency check as required per 14 CFR Part 61.57(d) on this date.**

*Ralph Smith* 127899932 CFI expires 06/24/22

7. Fred could not find his logbook since he had just moved to a new apartment two months ago, so he just put the documents in his briefcase in a folder that he labeled “Flying Stuff & Records”.

8. Two weeks later, in late July, Fred found a super deal on the internet for an old “known ice” Piper Aztec in St Louis. He went to the local airport and found a CFI with a MEI that had just bought a Seneca I. The MEI had three hours of PIC time in the Seneca and offered it to Fred for fuel only so he could build his own experience in the airplane. They flew 6/10 of an hour and completed two landings. The instructor then made the following sole entry in a new logbook that Fred bought at the pilot shop that day.

**I certify that Mr. Fred Smith, holder of pilot certificate 1234859 has received flight and ground training and is competent for solo flights as PIC in an airplane multi-engine land aircraft on July 21, 2022.**  
*Ace Pilot*, 56749982 CFI (AIMS) Expires 10/24

9. No other entries were made by the instructor. Over the next two days, Fred flew the Seneca I locally for 8 hours and made 21 touch and go landings, and 7 landings to a full stop. Two of the landings were single engine after Fred shut the engine down for the experience. In addition, a cross country flight to an airport 102 nm away, he made two instrument flights in actual IMC to practice is instrument skills and approaches in the twin.

10. The following weekend, Fred flew commercially to St. Louis. The commercial flight was very unpleasant since the pressure changes amplified a nasty ear and sinus infection that he had just acquired. In addition, his eyes were watering a lot. The prescription medication that his wife gave him for her condition seemed to help a lot.

11. After a quick taxi trip to the outlying airport, Fred arrived at his dream airplane. It was a 1968 Aztec with after market engine modifications giving it a rated horsepower of 400 on each side. It had been used at a local flight school.

**12. The maintenance records reflected the following:**

Current hobbs 25,293.4

Last 100 hour at hobbs 25,208.3

Last annual: June 30, 2020

ELT removed for repair in April

Heading Indicator, Transponder's Mode C, and pitot heat, all placarded INOP

Three recurring AD's on the airframe were overdue

All Engine and Propeller logbooks were missing

The last three Airframe logbooks were present, Original one was missing

Two “Mandatory” Service Bulletins from Piper had not been completed

Last altimeter check: June 30, 2018

Last pitot static check: July 30, 2018

Last Transponder check: July 2, 2020

13. Fred did not want to spend any money to have a licensed mechanic (A&P) assist on the pre-buy inspection, so he did it all himself.

**He noted the following during his inspection:**

The green navigation light on the left wing tip was always on with the Master switch ON.

The navigation light on the right wing did not work at all

Fuel sumps on the right wing tank were all inoperative.

The equipment list did not reflect the Garmin 530 installation.

Oxygen gage on "0"

The fire extinguisher in the baggage compartment was about half empty.

The middle two seats did not have seat belts of any type

Three screws were missing in the right engine cowling

The nose tire was totally bald in spots but no cords were showing

Data base for the GPS was outdated

Probable cause of the Mode C being inop was a loose static line on the unit. Fred tighten the line himself

The "N number" on the right side was made from gray duct tape that someone had used after re-priming some of the paint on the fuselage.

14. He also noticed that it did not have an MEL so he went to the FAA website and downloaded a copy of the MMEL for a PA-23 and placed a copy in the aircraft to cover the inoperative equipment. All inoperative items were on the MMEL. After downloading the MEL he found one that had actually been approved for the airplane from two owners ago. So, he took it along also.

15. Fred decided to purchase the aircraft and paid the \$2,000 asking price in cash. Although they could not find a notary public to witness the transaction, the seller completed the FAA Bill of Sale, signed it, and gave it along with only the most current Airframe Logbook to Fred.

16. Fred then travelled to the local FSDO and picked up a Ferry Permit to fly the aircraft back to Detroit. He listed the reason for the flight was "Annual Inspection". While he was there he also asked about getting the FAA form for aircraft registration. They were out of stock so he decided that he would pick it up in Detroit when he got home. He did not want to lose the Ferry Permit so he mailed it to his A&P in Detroit.

17. While at the FSDO office Fred realized that he had lost his wallet somehow on the trip. So the FAA inspector ordered a copy of his certificates and medical from the FAA offices in Oklahoma City. He went to put the document in his newly purchased logbook but realized that he had left the logbook at home. He stuffed the FAXED document that the inspector had given him in his pocket and carried it with him at all times until arriving home in Detroit. Two hours

later he realized that the zip code had the last two numbers switched with each other, so he crossed out the zip code and wrote in the correct zip code.

18. Excited about the trip, he flew away in his new Aztec at daybreak the next morning into a clear blue sky leaving 34 minutes before official sunrise. Before leaving, he filed a VFR flight plan, but forgot to open it after take off.

19. Instead of flying directly back to Detroit he decided to stop in Chicago to make a call on a supplier for his business for two days. He decided to attempt to overcome his fear of a control tower, so he landed at O'Hare airport for the experience. On the last night while checking the weather for the flight on the next day, it appeared that the weather in Chicago was going to be marginal VFR, so he filed an instrument flight plan over to South Bend, Indiana for his departure in the morning.

20. The next morning, filling up with fuel was very expensive at O'Hare, but while waiting for the fuel truck he met a used bowling ball salesman trying to pick up a ride to Detroit. Fred then offered to take the salesman with him if the salesman paid for the entire fuel bill. The tanks were close to empty with only 10 gallons in each tank. So, the fill up saved Fred a ton of money. Those 400 HP engines were very thirsty and consumed about 30 gph each in normal cruise flight. The salesman had never been in a general aviation aircraft before in his life.

21. The salesman travelled with 20 bowling balls, so they stacked them in the back seat and in the baggage compartment. They did not secure them in any manner since they did not have a cargo net. Fred did not do an actual weight and balance for the trip, but he had worked a number of problems in the motel room the night before with weights very similar to the weights with the bowling balls. All of those were always well within any weight and CG limitations, so he felt comfortable that they were well within the weight and balance limitations for the trip and did not see a need to work an actual weight and balance problem. While loading the balls Fred did notice that one of the appeared to have a modification to hold something inside. He notice what looked like a marihuana leaf covered with a white powder substance on the floor but elected not to say anything to his new friend. "Don't ask, don't tell" worked for Fred.

22. Fred went into the pilot lounge for a quick check of the weather and managed to pick up the current METARS, NOTAMS, winds aloft, and TFR's along the entire route before the computer lost internet connection and dropped off line. The line guy said that when that happened, it would usually stay off line several hours. Since everything was now very good VFR along the entire route and no NOTAMS or TFR's applied, Fred decided to go with the information. He did not file a VFR flight plan and never opened the IFR plan that he had filed the night before.

23. The salesman fell asleep before Fred even started the first engine. He looked like he had done some heavy drinking earlier in the morning. Fred thought it was best not to awaken him, so Fred secured the seat and shoulder straps for him and went on his way.

24. On take off the big engines roared to life and with the gear up the old ship accelerated quickly to 205 kts by the end of the massive O'Hare runway. They maintained that speed for the next 20 minutes as they left the Class B airspace. Fred terminated radar services as soon as they cleared the inner ring of the airspace and stayed under the rest of the Class B airspace.

25. They were on their way to Detroit, Michigan. Shortly after the uneventful take off, they decided to cut directly across Lake Michigan to save some time. While heading directly for Detroit, flying about 10 miles from the shoreline, cruising at 6,500', they lost the right engine for unknown reasons. That woke the salesman from his deep sleep. They headed for the south shoreline. Unable to maintain altitude, they decided to open the door and throw all of the bowling balls out the door after doing two circles (65 degrees of bank so they could see the water surface better) to check for any boat activity on the surface. No boats or any other type of activity was observed on the surface. The balls made huge splashes as they hit the water after falling 1003' to the surface.

26. Flying the aircraft was very difficult and tiring for Fred so he asked the salesman if he would take the controls for a few minutes. Fred quickly demonstrated to him what each control did. To reach the controls the salesman had to take off his seat lap belt. Fred left his seat belt on, but had taken off the shoulder strap shortly before the incident began.

27. Suddenly, and for unknown reasons, the engine started again on its own since Fred had not completed any shut down procedure on it. He did not have a checklist for the Aztec with him. Everything seemed to be okay so they once again headed east over the open water without another human in sight. During the scenario, their altitude had dropped to about 300' above the water's surface. Fred took over controls again and decided that it was kind of fun flying at that altitude so he continued on at 100' AGL at 260 kts.

28. After that Fred decided to file and open a VFR flight plan over to Detroit. He did that while in flight. Reaching the east shoreline they noticed a low layer of heavy fog along the coast line so Fred climbed to 6,500 to stay VFR on top of it. The fog layer soon turned into a solid overcast that topped at 6,000' MSL. The sky was clear above their cruising altitude of 6,500.

29. By the time they were in the Grand Rapids area, the tops were at 17,500' but Fred had continued to climb and was flying at 18,500'. Listening to the local ATIS he discovered that the weather on the surface was 17,000' overcast with 25 miles of visibility and the altimeter was 29.92". He switched his altimeter from its current setting of 29.94" to 29.92". Other pilots in the

immediate area were complaining about building ice quickly in the clouds. He decided to ask for a short IFR clearance to descend to VFR conditions. Center gave him a clearance to proceed directly to the GRR VOR and descent to 15,000'. He tuned in the VOR and then preceded directly to it. He cancelled IFR when he arrived in VFR conditions after flying through the 500' layer of clouds. He picked up about ¾" of ice in the descent and quickly cycled the de-ice boots to clean off the wings and tail. He had not actually cycled the boots before to see if they worked. During the descent through the clouds he noticed that his passenger was using a voice recorder and shaving with his electric shaver while trying to smoke an old cigar.

30. He continued on toward Detroit. Approach Control at Detroit was very busy and they ended up vectoring Fred over the Canadian side of the river before bringing him back to land. Laughing, Fred told the salesman that he would not charge extra for a "two country" world tour.

31. Fred continued and landed at his home airport. It was a small uncontrolled airport and he decided to just make a straight in approach and land. After shut down, he was in a hurry to call all of his friends to tell them of his adventure and did not take time to set the parking brakes, chock the wheels, or do anything else to secure the aircraft on the ramp. He even left the main cabin door unlocked in his haste. Walking across the ramp exhausted, Fred stumbled a few times. A local constable saw his actions and thought that Fred had been drinking or was under the influence of some drug. He approached Fred and requested a blood sample. Fred refused since he thought that the constable was not prepared to draw blood under sanitary conditions.

32. Two hours later the FBO called Fred and said that he had apparently failed to close his VFR flight plan.