

Name: Enrique Gutierrez, Pilot In Command (PIC)
Date of Birth: 05/16/1968
Certificate #: [REDACTED], Commercial Pilot
Location of Interview: Rm # 336 Centro Medico Hospital, San Juan, PR
Subject: Interview regarding the accident that took place in N3889D, a Cessna 182A
Date and Time: 06/15/2018 at 10:50 local time
FAA Participants: Nusret Guvercin, ASI Ops, FSDO-63
Rafael Gonzalez, ASI AW at FSDO-63
Interview:

Inspector Gonzalez presented the NTSB Form 6120.1 Pilot Operator Accident/Incident to Mr. Gutierrez for him to fill it out and return.

PIC estimated that the accident took place on Sunday at/around 1:30 local time. PIC's girlfriend who accompanied him at the hospital room stated that she received the call from him after the accident at 12:30 local time on Sunday, which was minutes after the accident. The PIC stated that he had adequate rest the night before, and estimated his sleep time to be 8 to 10 hours. He stated that the accident aircraft was N3889D, a Cessna 182A.

PIC stated that he began his day at/around 7 am, and the accident flight was his 5th flight of the day.

According to the PIC statements, the company supplies fuel for its operations via a fuel tank (a plastic container) with an estimated capacity of 200 to 280 gallons located at the Arecibo Airport (ABO)(TJAB). The company purchases 100LL Avgas fuel from the Copeca fuel supplier at Aguadilla airport (BQN)(TJBQ). Pilot estimated the fuel consumption to be to around 14 gallons per hour in this aircraft, and based on the company's usage of aircraft with parachute jumps, he estimated that the fuel in this plastic fuel container lasted about 4 days of operations.

PIC stated that the aircraft was refueled from this local fuel tank on the day of the accident. PIC made three (3) flights earlier in the day with each flight lasting around 30 minutes from takeoff to landing. After his third flight of the day, the aircraft was refueled again from the same fuel supply source. PIC made another flight (the fourth flight of the day; the first flight after second refueling) with the parachutists, landed, and shut down the engine and waited inside the aircraft for the next flight. When asked to elaborate on his preflight and run-up procedures before takeoff, he stated that he habitually did the run-ups before the first flight and did not do run-ups on the subsequent takeoffs in the same day. However, for each flight he would do prop governor check and magneto check, and he typically performed the takeoffs with 10 degrees of flaps.

The accident flight was the fifth flight of the day, and he stated that the aircraft accelerated normally during takeoff roll and all indications were normal. He made an early left crosswind turn after takeoff, and all was fine up until reaching nearly 300 feet AGL after takeoff at which time the engine stumbled with a clinking noise and lost power with prop still rotating. He stated that from the time he heard the clinking noise to total engine power loss was approximately 3 seconds. He then checked fuel selector - OFF, mixture - OFF, throttle - IDLE, magnetos - OFF. He lowered the flaps and controlled airspeed and

maneuvered to land in an area; touched down at 60 KIAS. During landing roll, he could see the grass was very tall (estimated the grass height to be around 8 feet) coming all the way up to the windscreen during landing roll. Shortly after touchdown, nose wheel went into a ditch, and the aircraft rolled over. The ditch was invisible from the cockpit due to tall grass.

When asked about his typical flight for parachute jump, he described the flight profile as take off with full power, and climb with max power allowed (2500 RPM) for a continuous climb to 10,500 feet MSL. He then entered the jump pattern; dropped the parachute jumpers; descended from 10,500 feet MSL to landing with 2300 RPM to avoid shock cooling of the cylinders/engine. He estimated the time to takeoff/climb to 10,500 feet MSL to be around 20 minutes, and 10 minutes to enter the drop pattern, drop the parachutists, and return for landing at 2300 RPM at/around 160 KIAS airspeed with steep spirals.

Pilot stated that the company routinely weighed the passengers (parachutists) with their gear on the ground; weight and balance calculation was made for each flight; and PIC performed the preflight procedures via checklist. As highlights in his checklist flow, he emphasized that he checked the engine mounts, and propeller/spinner back plate for security regularly; he checked the fuel for contamination on the first flight of the day, and at every refuel. He further stated that he checked oil as part of the preflight inspection for every flight. When asked by this inspector if he checked the oil for this particular flight and how he checked the oil, he stated that since the aircraft had just received a 100-hour inspection, the oil dipstick was clean showing brand new oil color. When asked to see if he smelled the oil, he stated that he did, and the oil did not have any burn smell to it.

This inspector had questioned the PIC about his knowledge of engine malfunctions typically encountered with piston engines, such as detonation, hot spots on the cylinder heads, sticky/stuck valves, and spark plug fouling, etc. He demonstrated very good working knowledge of all of these possible causes, and their associated systems on the aircraft. He stated that it (the cause of the engine failure) could not have been detonation as the noise was not loud enough. He stated that he did not expect mechanical clinking noise with engine failure associated with fuel/filter contamination issues. He also added that he knew very well about sparkplug fouling.

Judging by the aircraft flight profile presented by the pilot that the aircraft was used on a regular basis with high power climbs/descents for extensive durations, this inspector asked the pilot if he experienced any other failures of any kind on this aircraft before. He responded that he experienced partial power loss one time in the past with engine not producing enough power. The company mechanic's examination showed that the crankshaft was good, but push rods were corroded. At this time, the company performed an oil analysis and the oil test results showed "more particles than normal due to corrosion". At this time, company changed some major components of the engine, but, it was as comprehensive as an overhaul.

As far as the history of this aircraft, the pilot stated that this particular aircraft was in long-term storage roughly around 40 years with very little usage.

The pilot stated that this aircraft has a Supplemental Type Certificate (STC) allowing the use of AUTO gasoline. Based on the pilot's history of flying with the company and this aircraft, the company had used auto gas for some time during its operations. PIC described that since the exhaust pipe of this aircraft was short, and protruding slightly outside of the fuselage, the exhaust was running very close to the

fuselage skin causing a streak of discoloration and heavy residue. Due to this marking (carbon smoke) of the exhaust on the fuselage, the company has changed the fuel ratio to 50/50% 100LL Avgas/Auto gasoline combination for a while. The results were more or less the same. Then, the company changed the ratio to 70/30% 100LL Avgas/Auto gasoline combination, and the results were more or less the same, again. Then, the company switched to 100% Avgas about a year ago. The company has mixed the 100LL Avgas and Auto gas in the plastic fuel container, and stored it and refueled the aircraft with premixed 100LL Avgas/Auto gas combination.

When asked by this inspector if he knew about any maintenance requirements in the beginning and termination of the STC fuel provisions, and/or any fuel combinations allowed as per STC instructions, he stated that he was not aware of any.

Inspector Gonzalez presented a final question to the PIC to acquire about an occurrence that took place the day before the accident flight where this PIC in this same aircraft called San Juan Center and reported engine problems during his descent after dropping the parachutists. The pilot confirmed the report and he stated that the engine trouble he experienced was related to fuel contamination. However, he stated that there was no fuel contamination found during post flight inspection for fuel contamination.

PIC stated that he had accumulated around 1,500 hours of flight time in the make/model of the accident aircraft.