

STATEMENT OF MARK SHACKELFORD REGARDING JULY 4TH EMERGENCY LANDING in Bonanza N4219B

At approximately 7:15 pm, after a normal preflight inspection, I departed Stan Stamper municipal airport in Hugo, Ok with one private-pilot rated passenger in the right seat. Having departed Nassau Bay (OTX0) earlier in the day, with a full right main and $\frac{3}{4}$ full left main, there was still approximately $\frac{1}{3}$ tank remaining in the right main, and near full on the left main due to the 3-4 gallons per hour the fuel system returns to the left main tank. A normal run-up and departure was made to the south to climb to a cruising altitude of 6500' msl.

Shortly into the flight, upon reaching our cruising altitude of 6500, I confirmed prop RPM at 2300, the maximum for cruise flight on the E-225-8 engine, and leaned the mixture until a slight drop in manifold pressure was noted, then enriched slightly. The auto pilot was then engaged and the flight proceeded normally.

As we crossed the Red River to enter Texas a few moments later, I instructed the passenger to plug in the Icebox cooler we had brought along for in-flight air conditioning. It worked superbly on the way over from its built in battery, but the battery was now low, so it would require 12 volts from the aircraft's system to operate. The instant the 12 volt plug was inserted into the aircraft's 12 volt outlet, a loud pop was heard, from what seemed under the engine cowling. I would compare it to a firecracker in sound.

At this point the autopilot disengaged causing the aircraft to pitch up. I tried to trim it using the electric trim, but realized it wasn't responding. I instructed my passenger co-pilot to push the nose down so we didn't stall while I ran the Electrical System Failure checklist. No breakers were popped. As the nose was lowered, I reached under the dash to manually re-trim the pitch wheel to a more nose-down position.

As we regained airspeed, I noticed a drop in prop RPM. I increased the throttle and had no response. For approximately 2 seconds I was in denial because I thought it was impossible, but I quickly accepted that I was dealing with the loss of not only the electrical system, but also the engine.

I was faced with a situation I don't believe I've ever been trained for, either in a Level D sim, or with a private flight instructor – Simultaneous loss of engine power and electrical system.

The Emergency checklists were useless to me, as the Electrical failure checklist assumed engine still running, and the Loss of Engine Power checklist assumed the electrical system was still operational.

I used my GPS to find the nearest field, which showed to be a private grass strip of 3000' located 4.5 miles away. I knew at best glide the aircraft could make that field, so it was selected as our destination.

I changed to the left main tank with no change. I selected each mag on and off with no change.

The grass strip was located at our 11:00 position.

I wasn't sure what the aircraft's performance would be with the prop windmilling and the gear down, so I waited until we were closer to the field to begin the manual gear extension procedure. Having practiced this procedure before, I knew to expect 50 cranks to fully lock the gear in the down position. I gave the controls to my co-pilot, and leaned back to begin the procedure. After carefully counting the cranks, and needing to rest at 30 cranks, at exactly 57 cranks the gear locked such that the crank would turn no more.

With gear down, I entered the pattern for a right downwind to the north runway. Winds were assumed calm. I was flying a normal pattern, but as I turned base, I realized I was sinking too fast to fly a standard pattern.

At this point I had a stand of trees perhaps 70' tall that I had to clear to make the runway. I was unable to lower my flaps due to the loss of electrical power, and I knew any abrupt maneuver could lead to a stall. I broke off my base leg and aimed directly for the numbers (there were no actual numbers on the grass strip of course).

I maintained 60 mph indicated and we cleared the trees, but now I had the setting sun directly in my eyes as we entered this most critical phase of the flight. Having a sense of relief that we cleared the trees, I thought we would make a normal landing, but to my horror, I realized we were heading directly for a stack of about 10 large round hay bales stacked on the edge of the runway, perhaps 8 feet tall. I felt that trying to pull up over them would induce a stall, so I turned to the right just as the aircraft touched down.

About 100 feet after we touched down, the left wing impacted the stack of hay bales, causing the aircraft to spin to its left and come to a sudden stop. My head hit the dashboard causing a broken nose, gashes, and a broken tooth. Bleeding profusely, my passenger told me he couldn't open the door. I instructed him to pull the emergency exit wire from the passenger rear window and crawl out, which he did. He then assisted me out. Fearing a fire, we quickly moved away from the aircraft. No fire occurred.