

June 6, 2026

Pilot of S2R-T34 4990X statement of engine flame out requiring emergency off airport landing wherein the air frame sustained repairable damage on 5/20/26.

Purpose of flight was aerial application of fungicide to a field corn crop near Cameron, Texas. The flight originated from a private airstrip 10 miles west of Bryan, Texas.

The weather conditions at the time of the flight were winds 050 at 8 mph temperature 80 degrees. Visibility 10 miles going to a variable east wind 3 mph with broken cloud cover at 1000 feet AGL (estimated).

Take off and ferry to the application site was usual and normal with no indications of any engine malfunction. At the application site approximately 140 acres of fungicide mix was applied with no malfunction noted and all pressures and engine instruments in normal ranges.

The aircraft left the application site to return the airfield for a second load. Ferry altitude was 500 foot AGL. A stretch of elevated topographic terrain had to be crossed in a straight line back to the home airfield and a gentle climb was initiated to maintain 500 foot AGL. The pilot noted the guidance system seemed dim and initiated a menu change to enhance the light bar visibility.

A moment later the engine shut down. The shut down did not act like fuel starvation wherein an engine loses thrust quickly then may fire up again as the remaining spurt of fuel is consumed. This shut down was slower without the sudden loss of thrust and no secondary fuel spurt to extend the glide. This effect may be explained by the climb attitude.

The pilot initiated the electric fuel boost pump but did not have the altitude or time to initiate the ignitors. The propeller was already feathering and un-feathering would not be complete before the aircraft was on the ground. An off field land was the only option.

There was open pasture land one mile behind and two miles ahead of the flame out but neither site was an option with the altitude remaining. A small coastal hay field (perhaps 700 feet long) was immediately to the right joined by a small rough and broken pasture at a slight angle to the coastal hay patch (perhaps adding 600 feet) to the total length of the landing zone. The coastal hay field declined in elevation in the direction of the landing so the aircraft did not slow down appreciable after initial touch down. A fence with steel post separated the coastal hay field from the pasture. The pilot used the remaining airspeed to raise the aircraft up enough to bounce the plane over the fence while attempting a left bank to align the aircraft for the best use of the remaining open land as there was open rock pits to the right and only about 40 yards of open land to the left. Again this pasture was rough and exhibited significant topography. Braking produced little guidance for the roll out because the wheels bounced at each rough mound. The right wing or the aircraft struck branches on a tree causing the craft to turn to the right sharply but at that point all forward movement had stopped. The propeller never touched the ground.

The aircraft wings and empennage were removed to transport the air frame back to the base. Before the wings were removed 48 gallons of fuel had to be drained. That is a little over an hour's worth of fuel. Inspection of the fuel filters at the landing site did not reveal any fouled filters. All fuel connections were good and no fuel leaks. Once back at the base airfield a barrel of fuel was attached to the header tank then all lines to the flow divider were purged of air and the engine started and ran for two 10 minute intervals.

In evaluating the above situation, the pilot recognizes that greater altitude may have provided reasonable landing opportunities. Additionally, greater altitude would have provided greater opportunity to employ the ignitors and fuel boost pump. Ignitors should be employed first and boost pump immediately thereafter and initiating a start cycle if all else fails. A test at the base demonstrated that the airflow through the turbine was too great to reignite without ignitors.

Suspected causes of the flame out is a combination of fuel sealant flecks in the right fuel tank which obstructed the right fuel hose and a momentary time in climb of uncoordinated flight while the pilot adjusted the guidance system when vent air may have entered the fuel header tank.

Thank you

23,000 hour Ag pilot