Aviation Investigation Final Report

Location:	Sidney, New York	**Accident Number:**	GAA18CA015
Date & Time:	October 18, 2017, 17:15 Local	**Registration:**	N37TP
Aircraft:	THOMAS G PARKHURST KITFOX IV	**Aircraft Damage:**	Substantial
Defining Event:	Loss of control in flight	**Injuries:**	2 Minor
Flight Conducted Under:	Part 91: General aviation - Personal		

Analysis

The pilot reported that, during final approach, the airplane was "out of alignment to the left edge of the runway." He decided to add throttle and realign with the runway, but as he reached for the throttle to add power, at that instant, he was "blinded" by sun glare, and he had "no memory of [the] events for approximately 6 seconds" after that point. He added that, just before impact, he saw the ground, but "there was nothing that could be done." The airplane impacted a parking lot in a nose-low, left-wing-down attitude.

The airplane sustained substantial damage to the fuselage, empennage, and both wings.

During a telephone conversation with the National Transportation Safety Board investigator-in-charge, the passenger reported that, during landing, the airplane was crabbing to the left but traveling forward. He reported that, before the runway threshold, there was a momentary sun flash that "lit up the plastic windscreen." He further reported that the pilot applied power, pulled back on the control stick, and the airplane "spiraled" and "twisted" left and downward into a parking lot.

The pilot reported that there were no preaccident mechanical malfunctions or failures with the airplane that would have precluded normal operation.

It is likely that the pilot exceeded the airplane's critical angle of attack and then entered an aerodynamic stall/spin.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be:

The pilot's exceedance of the airplane's critical angle of attack following a loss of ground reference during landing in glaring sun conditions, which resulted in an aerodynamic stall/spin.

Findings

Personnel issues	Aircraft control - Pilot
Aircraft	Angle of attack - Capability exceeded
Personnel issues	Situational awareness - Pilot
Aircraft	Airspeed - Not attained/maintained
Environmental issues	Glare - Effect on personnel

Factual Information

History of Flight

Approach-VFR pattern final	Other weather encounter
Approach-VFR pattern final	Loss of visual reference
Approach-VFR pattern final	Loss of control in flight (Defining event)
Approach-VFR go-around	Aerodynamic stall/spin
Approach-VFR go-around	Collision with terr/obj (non-CFIT)

Pilot Information

Certificate:	Flight instructor; Recreational; Sport Pilot	**Age:**	68,Male
Airplane Rating(s):	Single-engine land	**Seat Occupied:**	Left
Other Aircraft Rating(s):	None	**Restraint Used:**	4-point
Instrument Rating(s):	None	**Second Pilot Present:**	No
Instructor Rating(s):	Sport pilot	**Toxicology Performed:**	No
Medical Certification:	Sport pilot None	**Last FAA Medical Exam:**	
Occupational Pilot:	No	**Last Flight Review or Equivalent:**	July 8, 2017
Flight Time:	(Estimated) 394 hours (Total, all aircraft), 90 hours (Total, this make and model), 302 hours (Pilot In Command, all aircraft), 13 hours (Last 90 days, all aircraft), 13 hours (Last 30 days, all aircraft), 1 hours (Last 24 hours, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	THOMAS G PARKHURST	**Registration:**	N37TP
Model/Series:	KITFOX IV NO SERIES	**Aircraft Category:**	Airplane
Year of Manufacture:	2014	**Amateur Built:**	Yes
Airworthiness Certificate:	Experimental (Special)	**Serial Number:**	ASC-199
Landing Gear Type:	Tailwheel	**Seats:**	2
Date/Type of Last Inspection:	May 2, 2017 Condition	**Certified Max Gross Wt.:**	1200 lbs
Time Since Last Inspection:		**Engines:**	1 Reciprocating
Airframe Total Time:	81 Hrs as of last inspection	**Engine Manufacturer:**	Rotax
ELT:	C91A installed, activated, did not aid in locating accident	**Engine Model/Series:**	912
Registered Owner:	On file	**Rated Power:**	80 Horsepower
Operator:	On file	**Operating Certificate(s) Held:**	None

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual (VMC)	**Condition of Light:**	Day
Observation Facility, Elevation:	KBGM,1636 ft msl	**Distance from Accident Site:**	25 Nautical Miles
Observation Time:	21:53 Local	**Direction from Accident Site:**	240°
Lowest Cloud Condition:	Clear	**Visibility**	10 miles
Lowest Ceiling:	None	**Visibility (RVR):**	
Wind Speed/Gusts:	4 knots /	**Turbulence Type Forecast/Actual:**	/ None
Wind Direction:	220°	**Turbulence Severity Forecast/Actual:**	/ N/A
Altimeter Setting:	30.22 inches Hg	**Temperature/Dew Point:**	17°C / 6°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	SIDNEY, NY (N23)	**Type of Flight Plan Filed:**	None
Destination:	Sidney, NY (N23)	**Type of Clearance:**	None
Departure Time:	16:30 Local	**Type of Airspace:**	Class G

Airport Information

Airport:	SIDNEY MUNI N23	**Runway Surface Type:**	Asphalt
Airport Elevation:	1026 ft msl	**Runway Surface Condition:**	Dry
Runway Used:	25	**IFR Approach:**	None
Runway Length/Width:	4201 ft / 75 ft	**VFR Approach/Landing:**	Go around;Traffic pattern

Wreckage and Impact Information

Crew Injuries:	1 Minor	**Aircraft Damage:**	Substantial
Passenger Injuries:	1 Minor	**Aircraft Fire:**	None
Ground Injuries:	N/A	**Aircraft Explosion:**	None
Total Injuries:	2 Minor	**Latitude, Longitude:**	42.305278,-75.408889(est)

Preventing Similar Accidents

Prevent Aerodynamic Stalls at Low Altitude (SA-019)

The Problem

While maneuvering an airplane at low altitude in visual meteorological conditions, many pilots fail to avoid conditions that lead to an aerodynamic stall, recognize the warning signs of a stall onset, and apply appropriate recovery techniques. Many stall accidents result when a pilot is momentarily distracted from the primary task of flying, such as while maneuvering in the airport traffic pattern, during an emergency, or when fixating on ground objects.

What can you do?

- Be honest with yourself about your knowledge of stalls and your preparedness to recognize and handle a stall situation in your airplane. Seek training to ensure that you fully understand the stall phenomenon, including angle-of attack (AOA) concepts and how elements such as weight, center of gravity, turbulence, maneuvering loads, and other factors affect an airplane's stall characteristics.
- Remember that an aerodynamic stall can occur at any airspeed, at any attitude, and with any engine power setting.
- Remember that the stall airspeeds marked on the airspeed indicator (for example, the bottom of the green arc and the bottom of the white arc) typically represent steady flight speeds at 1G at the airplane's maximum gross weight in the specified configuration. Maneuvering loads and other factors can increase the airspeed at which the airplane will stall. For example, increasing bank angle can increase stall speed exponentially. Check your airplane's handbook for information.
- Reducing AOA by lowering the airplane's nose at the first indication of a stall is the most important immediate response for stall avoidance and stall recovery.
- Manage distractions when maneuvering at low altitude so that they do not interfere with the primary task of flying.
- Resist the temptation to perform maneuvers in an effort to impress people, including passengers, other pilots, persons on the ground, or others via an onboard camera. "Showing off" can be a deadly distraction because it diverts your attention away from the primary task of safe flying.
- Understand that the stall characteristics of an unfamiliar airplane may differ substantially from those of airplanes with which you have more flight experience.

See https://www.ntsb.gov/Advocacy/safety-alerts/Documents/SA-019.pdf for additional resources.

The NTSB presents this information to prevent recurrence of similar accidents. Note that this should not be considered guidance from the regulator, nor does this supersede existing FAA Regulations (FARs).

Administrative Information

Investigator In Charge (IIC):	Gerhardt, Adam
Additional Participating Persons:	Todd Moses; FAA/ FSDO; Albany, NY
Original Publish Date:	February 21, 2018
Last Revision Date:	
Investigation Class:	Class
Note:	This accident report documents the factual circumstances of this accident as described to the NTSB.
Investigation Docket:	https://data.ntsb.gov/Docket?ProjectID=96214