Aviation Investigation Final Report

Location:	Somerset, Pennsylvania	**Accident Number:**	ERA18TA266
Date & Time:	September 30, 2018, 14:20 Local	**Registration:**	N4001F
Aircraft:	Cessna 172	**Aircraft Damage:**	Substantial
Defining Event:	Nose over/nose down	**Injuries:**	1 None
Flight Conducted Under:	Part 91: General aviation - Personal		

Analysis

During the airplane's first flight after an annual inspection, the commercial pilot practiced touch-and-go landings and then flew the airplane for about 1.5 hours before returning to the airport. While on final approach to land, he reduced the engine power. The pilot stated that after the airplane touched down on the runway, it was traveling too fast to stop before the end of the runway but not fast enough to abort the landing. Subsequently, the airplane continued off the end of the runway, down an embankment, and came to rest inverted about 150 ft from the departure end of the runway. Postaccident examination of the brakes revealed no anomalies, and the pilot reported that there were no mechanical malfunctions or failures of the airplane that would have precluded normal operation. The pilot stated that he lands farther down the runway during full-stop landings because his hangar is at the far end of the runway. Thus, it is likely that the pilot landed the airplane too far down the runway and that it was traveling too fast to prevent a runway overrun.

Probable Cause and Findings

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

The pilot's decision to land with insufficient runway remaining to stop, which resulted in a runway overrun.

Findings

Aircraft	Surface speed/braking - Incorrect use/operation
Personnel issues	Aircraft control - Pilot
Personnel issues	Decision making/judgment - Pilot

Factual Information

History of Flight

Landing-landing roll	Runway excursion
Landing-landing roll	Nose over/nose down (Defining event)

On September 30, 2018, about 1420 eastern daylight time, a Cessna 172, N4001F, was substantially damaged after it overran the runway while landing at Somerset County Airport (2G9), Somerset, Pennsylvania. The commercial pilot was not injured. Visual meteorological conditions prevailed, and no flight plan was filed for the local flight, which originated around 1215. The personal flight was conducted under the provisions of Title 14 *Code of Federal Regulations* Part 91.

According to the pilot, he was practicing touch-and-go landings during the airplane's first flight since its annual inspection. He then departed the airport, flew locally for about 1.5 hours, and returned to the airport to land on runway 25. He noted a 6 knot left crosswind, and while on final approach, he reduced the engine power to perform the landing. When the airplane was at the end of the 5,000 ft-long runway, the pilot knew that it was traveling too fast to stop prior to the end of the runway, but not fast enough to abort the landing. The airplane continued off the end of the runway, down an embankment, and came to rest inverted about 150 ft from the end of the runway.

During the accident sequence, the airplane sustained substantial damage to the forward section of the fuselage and the vertical stabilizer.

During a telephone interview, the pilot reported that when doing a full stop landing, he lands further down the runway since his hangar is at the far end of the runway.

The 1415 recorded weather observation at the 2G9 included wind from 140° at 6 knots, visibility 10 statute miles, clear skies, temperature 20° C, dew point 11° C; barometric altimeter 30.31 inches of mercury.

A Federal Aviation Administration inspector examined the brakes after the accident revealed that no anomalies were noted. In addition, the pilot reported that there were no mechanical failures or malfunctions of the airplane prior to the accident that would have precluded normal operation.

Pilot Information

Certificate:	Commercial; Private	**Age:**	68,Male
Airplane Rating(s):	Single-engine land	**Seat Occupied:**	Unknown
Other Aircraft Rating(s):	Balloon	**Restraint Used:**	Unknown
Instrument Rating(s):	Airplane	**Second Pilot Present:**	No
Instructor Rating(s):	None	**Toxicology Performed:**	No
Medical Certification:	BasicMed None	**Last FAA Medical Exam:**	July 6, 2017
Occupational Pilot:	No	**Last Flight Review or Equivalent:**	
Flight Time:			

Aircraft and Owner/Operator Information

Aircraft Make:	Cessna	**Registration:**	N4001F
Model/Series:	172 Undesignat	**Aircraft Category:**	Airplane
Year of Manufacture:	1958	**Amateur Built:**	
Airworthiness Certificate:	Normal	**Serial Number:**	36901
Landing Gear Type:	Tricycle	**Seats:**	4
Date/Type of Last Inspection:	September 21, 2018 Annual	**Certified Max Gross Wt.:**	2299 lbs
Time Since Last Inspection:	2 Hrs	**Engines:**	1 Reciprocating
Airframe Total Time:	3458 Hrs at time of accident	**Engine Manufacturer:**	Continental
ELT:	C91 installed, activated, did not aid in locating accident	**Engine Model/Series:**	O-300-A
Registered Owner:	On file	**Rated Power:**	145 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:	2G9,2275 ft msl	**Distance from Accident Site:**	19 Nautical Miles
Observation Time:	14:15 Local	**Direction from Accident Site:**	27°
Lowest Cloud Condition:	Clear	**Visibility**	10 miles
Lowest Ceiling:	None	**Visibility (RVR):**	
Wind Speed/Gusts:	6 knots / None	**Turbulence Type Forecast/Actual:**	/
Wind Direction:	140°	**Turbulence Severity Forecast/Actual:**	/
Altimeter Setting:	30.3 inches Hg	**Temperature/Dew Point:**	20°C / 11°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	Somerset, PA (2G9)	**Type of Flight Plan Filed:**	None
Destination:	Somerset, PA (2G9)	**Type of Clearance:**	VFR
Departure Time:	12:15 Local	**Type of Airspace:**	

Airport Information

Airport:	Somerset County 2G9	**Runway Surface Type:**	Asphalt
Airport Elevation:	2275 ft msl	**Runway Surface Condition:**	Dry
Runway Used:	25	**IFR Approach:**	None
Runway Length/Width:	5002 ft / 75 ft	**VFR Approach/Landing:**	Full stop;Traffic pattern

Wreckage and Impact Information

Crew Injuries:	1 None	**Aircraft Damage:**	Substantial
Passenger Injuries:		**Aircraft Fire:**	None
Ground Injuries:	N/A	**Aircraft Explosion:**	None
Total Injuries:	1 None	**Latitude, Longitude:**	40.034442,-79.023887(est)

Administrative Information

Investigator In Charge (IIC):	Kemner, Heidi
Additional Participating Persons:	Gary Ankney; FAA/FSDO; Allentown, PA
Original Publish Date:	February 11, 2020
Last Revision Date:	
Investigation Class:	Class
Note:	The NTSB did not travel to the scene of this accident.
Investigation Docket:	https://data.ntsb.gov/Docket?ProjectID=98380