Aviation Investigation Final Report

Location:	Deer Park, Washington	**Accident Number:**	WPR23LA268
Date & Time:	July 7, 2023, 08:30 Local	**Registration:**	N633VS
Aircraft:	VICKERS-ARMSTRONG LTD SPITFIRE IX	**Aircraft Damage:**	Substantial
Defining Event:	Loss of control on ground	**Injuries:**	1 None
Flight Conducted Under:	Part 91: General aviation - Other work use		

Analysis

The pilot of the tailwheel-equipped airplane reported that, during landing roll with a 90° left crosswind at 6 kts, the airplane had a slight drift to the left after touchdown. He attempted corrective inputs by using a combination of right rudder and right brake, but the airplane continued drifting to the left and departed the runway. Subsequently, the landing gear collapsed, and the airplane collided with the dirt surface, resulting in substantial damage to the right wing.

The pilot initially reported that there were no preaccident mechanical failures or malfunctions with the airplane that would have precluded normal operation and that a gust of wind pushed the tail of the airplane's tail to the right. The pilot later stated he suspected the right brake had locked during landing, which he said would have reduced the braking effectiveness on the right side. Pictures of skid marks on the runway associated with the right tire show a lighter and narrower skid mark initially parallel to the runway heading, that increased in width and darkness as it turned to the left to where the airplane exited the runway. The right main tire was flat spotted and worn through about ½ the thickness of the sidewall. The airplane was not examined or secured after the accident due to the pilot's initial assessment that there were no abnormalities or malfunctions with the airplane, and that the airplane had been affected by wind. The evidence is consistent with the pilot's testimony that he applied right rudder and brake to counter the left turn during landing rollout with a left crosswind.

Probable Cause and Findings

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

The pilot's failure to maintain directional control during landing with a crosswind.

Findings

Personnel issues	Aircraft control - Pilot
Aircraft	Directional control - Not attained/maintained
Environmental issues	Crosswind - Effect on equipment
Environmental issues	Crosswind - Response/compensation

Factual Information

History of Flight

Landing-landing roll	Loss of control on ground (Defining event)

Pilot Information

Certificate:	Airline transport; Commercial	**Age:**	69,Male
Airplane Rating(s):	Single-engine land; Single-engine sea; Multi-engine land; Multi-engine sea	**Seat Occupied:**	Single
Other Aircraft Rating(s):	None	**Restraint Used:**	4-point
Instrument Rating(s):	Airplane	**Second Pilot Present:**	No
Instructor Rating(s):	None	**Toxicology Performed:**	
Medical Certification:	Class 1 With waivers/limitations	**Last FAA Medical Exam:**	October 2, 2022
Occupational Pilot:	No	**Last Flight Review or Equivalent:**	April 15, 2023
Flight Time:	12400 hours (Total, all aircraft), 155 hours (Total, this make and model), 11400 hours (Pilot In Command, all aircraft), 26 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:	VICKERS-ARMSTRONG LTD	**Registration:**	N633VS
Model/Series:	SPITFIRE IX	**Aircraft Category:**	Airplane
Year of Manufacture:	1945	**Amateur Built:**	
Airworthiness Certificate:	Experimental (Special)	**Serial Number:**	CBAF IX.571
Landing Gear Type:	Tailwheel	**Seats:**	1
Date/Type of Last Inspection:	June 16, 2023 Annual	**Certified Max Gross Wt.:**	7500 lbs
Time Since Last Inspection:	1 Hrs	**Engines:**	1 Reciprocating
Airframe Total Time:	1387 Hrs at time of accident	**Engine Manufacturer:**	Rolls Royce Packard
ELT:	Not installed	**Engine Model/Series:**	Merlin 266
Registered Owner:	On file	**Rated Power:**	1760 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:	KDEW,2206 ft msl	**Distance from Accident Site:**	0 Nautical Miles
Observation Time:	07:53 Local	**Direction from Accident Site:**	358°
Lowest Cloud Condition:	Clear	**Visibility**	10 miles
Lowest Ceiling:	None	**Visibility (RVR):**	
Wind Speed/Gusts:	6 knots /	**Turbulence Type Forecast/Actual:**	/
Wind Direction:	70°	**Turbulence Severity Forecast/Actual:**	/
Altimeter Setting:	29.91 inches Hg	**Temperature/Dew Point:**	23°C / 9°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	Spokane, WA (KSFF)	**Type of Flight Plan Filed:**	None
Destination:	Deer Park, WA (KDEW)	**Type of Clearance:**	VFR
Departure Time:	08:00 Local	**Type of Airspace:**	Class E

Airport Information

Airport:	DEER PARK DEW	**Runway Surface Type:**	Asphalt
Airport Elevation:	2210 ft msl	**Runway Surface Condition:**	Dry
Runway Used:	16	**IFR Approach:**	None
Runway Length/Width:	6100 ft / 75 ft	**VFR Approach/Landing:**	None

Wreckage and Impact Information

Crew Injuries:	1 None	**Aircraft Damage:**	Substantial
Passenger Injuries:		**Aircraft Fire:**	None
Ground Injuries:		**Aircraft Explosion:**	None
Total Injuries:	1 None	**Latitude, Longitude:**	47.967055,-117.42858(est)

Administrative Information

Investigator In Charge (IIC):	Rho, Paul
Additional Participating Persons:	Tom Lang; FAA; Spokane, WA
Original Publish Date:	December 21, 2023
Last Revision Date:	
Investigation Class:	Class 4
Note:	The NTSB did not travel to the scene of this accident.
Investigation Docket:	https://data.ntsb.gov/Docket?ProjectID=192586