



Aviation Investigation Final Report

Location:	Opa-locka, Florida	Accident Number:	ERA23LA104
Date & Time:	January 3, 2023, 12:35 Local	Registration:	N2354E
Aircraft:	Cessna 172N	Aircraft Damage:	Substantial
Defining Event:	Prop/jet/rotor blast/suction	Injuries:	2 None
Flight Conducted Under:	Part 91: General aviation - Instructional		

Analysis

The flight instructor reported that during the taxi for takeoff in a non-movement area, he and his student noticed a large multi-radial-engine airplane near their intended taxi route. The instructor told the student to deviate from the painted taxiway yellow line to provide for additional distance away from the prop wash behind the larger airplane. Subsequently, as their taxi continued behind the other airplane, the accident airplane started “violently shaking,” the right wing lifted, and the left wing contacted the taxiway surface. The nose also tipped forward, which resulted in the propeller striking the ground. The flight instructor shut off the engine, however, he estimated the airplane was pushed by the propeller blast an additional 100 ft further until eventually stopping upright on all three landing gear. The left wing sustained substantial damage.

According to the pilot of the larger airplane, there had been delays for departure clearances and he had positioned his airplane into the wind while waiting, which resulted in the tail and the engines propeller blast oriented towards the taxiway the accident airplane taxied through. He stated that at the time that the event occurred, his airplane was at flight idle, and he was not performing a run-up. He did not know anything had happened to the accident airplane, until he heard of a propeller strike announced over the radio.

Probable Cause and Findings

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

The flight instructor's decision to taxi behind a large multi-engine airplane, which resulted in an encounter with propeller blast and a loss of airplane control on the ground.

Findings

Personnel issues	Decision making/judgment - Instructor/check pilot
Aircraft	Directional control - Attain/maintain not possible

Factual Information

History of Flight

Taxi-to runway	Prop/jet/rotor blast/suction (Defining event)
Taxi-to runway	Collision with terr/obj (non-CFIT)

Flight instructor Information

Certificate:	Commercial; Flight instructor; Private	Age:	20,Male
Airplane Rating(s):	Single-engine land; Multi-engine land	Seat Occupied:	Right
Other Aircraft Rating(s):	None	Restraint Used:	3-point
Instrument Rating(s):	Airplane	Second Pilot Present:	Yes
Instructor Rating(s):	Airplane single-engine; Instrument airplane	Toxicology Performed:	
Medical Certification:	Class 1 Without waivers/limitations	Last FAA Medical Exam:	January 9, 2023
Occupational Pilot:	Yes	Last Flight Review or Equivalent:	August 31, 2022
Flight Time:	312 hours (Total, all aircraft), 275 hours (Total, this make and model), 225 hours (Pilot In Command, all aircraft), 6 hours (Last 90 days, all aircraft), 3 hours (Last 30 days, all aircraft), 3 hours (Last 24 hours, all aircraft)		

Student pilot Information

Certificate:	Student	Age:	Male
Airplane Rating(s):	None	Seat Occupied:	Left
Other Aircraft Rating(s):	None	Restraint Used:	3-point
Instrument Rating(s):	None	Second Pilot Present:	Yes
Instructor Rating(s):	None	Toxicology Performed:	
Medical Certification:	Class 3 Without waivers/limitations	Last FAA Medical Exam:	August 22, 2022
Occupational Pilot:	No	Last Flight Review or Equivalent:	
Flight Time:	(Estimated) 40 hours (Total, all aircraft), 40 hours (Total, this make and model)		

Aircraft and Owner/Operator Information

Aircraft Make:	Cessna	Registration:	N2354E
Model/Series:	172N NO SERIES	Aircraft Category:	Airplane
Year of Manufacture:	1979	Amateur Built:	
Airworthiness Certificate:	Normal	Serial Number:	172-72777
Landing Gear Type:	Tricycle	Seats:	4
Date/Type of Last Inspection:	December 4, 2022 100 hour	Certified Max Gross Wt.:	2550 lbs
Time Since Last Inspection:		Engines:	1 Reciprocating
Airframe Total Time:	7210 Hrs as of last inspection	Engine Manufacturer:	LYCOMING
ELT:	Installed, not activated	Engine Model/Series:	O-320-H2AD
Registered Owner:	A&N FLIGHT SCHOOL INC	Rated Power:	160 Horsepower
Operator:	SKYDUO FLIGHT ACADEMY LLC.	Operating Certificate(s) Held:	Pilot school (141)
Operator Does Business As:	SKYDUO FLIGHT ACADEMY	Operator Designator Code:	

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual (VMC)	Condition of Light:	Day
Observation Facility, Elevation:	OPF,4 ft msl	Distance from Accident Site:	1 Nautical Miles
Observation Time:	12:33 Local	Direction from Accident Site:	266°
Lowest Cloud Condition:	Scattered / 2700 ft AGL	Visibility	10 miles
Lowest Ceiling:	Broken / 3400 ft AGL	Visibility (RVR):	
Wind Speed/Gusts:	14 knots /	Turbulence Type Forecast/Actual:	None / None
Wind Direction:	120°	Turbulence Severity Forecast/Actual:	N/A / N/A
Altimeter Setting:	30.15 inches Hg	Temperature/Dew Point:	28°C / 21°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	Opa-locka, FL	Type of Flight Plan Filed:	None
Destination:	Opa-locka, FL	Type of Clearance:	None
Departure Time:		Type of Airspace:	Class D

Airport Information

Airport:	MIAMI-OPA LOCKA EXEC OPF	Runway Surface Type:	
Airport Elevation:	8 ft msl	Runway Surface Condition:	Dry
Runway Used:		IFR Approach:	None
Runway Length/Width:		VFR Approach/Landing:	None

Wreckage and Impact Information

Crew Injuries:	2 None	Aircraft Damage:	Substantial
Passenger Injuries:		Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	2 None	Latitude, Longitude:	25.911205,-80.265358(est)

Administrative Information

Investigator In Charge (IIC):	Gerhardt, Adam
Additional Participating Persons:	Gilbert P. Olarte; FAA/FSDO ; Mirimar, FL
Original Publish Date:	June 15, 2023
Last Revision Date:	
Investigation Class:	Class 4
Note:	The NTSB did not travel to the scene of this accident.
Investigation Docket:	https://data.nts.gov/Docket?ProjectID=106551

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The NTSB does not assign fault or blame for an accident or incident; rather, as specified by NTSB regulation, “accident/incident investigations are fact-finding proceedings with no formal issues and no adverse parties ... and are not conducted for the purpose of determining the rights or liabilities of any person” (Title 49 *Code of Federal Regulations* section 831.4). Assignment of fault or legal liability is not relevant to the NTSB’s statutory mission to improve transportation safety by investigating accidents and incidents and issuing safety recommendations. In addition, statutory language prohibits the admission into evidence or use of any part of an NTSB report related to an accident in a civil action for damages resulting from a matter mentioned in the report (Title 49 *United States Code* section 1154(b)). A factual report that may be admissible under 49 *United States Code* section 1154(b) is available [here](#).