Aviation Investigation Final Report

Location:	Orlando, Florida	**Accident Number:**	ERA24LA100
Date & Time:	January 28, 2024, 16:23 Local	**Registration:**	N103JT
Aircraft:	HONDA AIRCRAFT CO LLC HA-420	**Aircraft Damage:**	Substantial
Defining Event:	Loss of control on ground	**Injuries:**	4 None
Flight Conducted Under:	Part 135: Air taxi & commuter - Non-scheduled		

Analysis

The on-demand air taxi flight proceeded to the destination airport and, about 1 hour and 22 minutes before landing, the flight crew reviewed the destination airport automated terminal information service (ATIS), which indicated the wind was from 270° at 14 kts, gusting to 24 kts. The cockpit voice recorder (CVR) recorded the crew discussing the crosswind component of the winds reported on the ATIS, the aircraft operating limitations, company procedures, and an alternate airport, but the pilot flying (PF) elected to continue to the planned destination airport.

About 16 minutes before the airplane touched down, when it was about 39 nautical miles (nm) from the destination airport, the PF advised the pilot monitoring (PM) that he checked the airport's automated surface observing system (ASOS) and reported the wind velocity was currently at 270° at 13-14 kts. While on final approach, about 1.2 nm from the approach end of runway 36L, the tower controller advised that the wind was from 290° at 19 kts, gusting to 24 kts.

The PF continued the approach and just about when the airplane was at touchdown the controller broadcast on the frequency for another airplane that was on approach that the wind was from 290° at 20 knots, gusting to 24 kts. After the airplane touched down, it began drifting to the left side of the runway. The PF applied left aileron control input, deployed the speedbrake, and applied right rudder; however, the airplane departed the runway and impacted a frangible runway distance-remaining sign. The PF then corrected the airplane to the right, returned it to the runway, and taxied off onto a taxiway, where the pilot stopped the airplane and evacuated.

Postaccident inspection of the airplane revealed substantial damage to the left wing's forward spar in the area that impacted the sign. The rudder and aileron trims were found in the neutral

position. The operator reported there was no preimpact mechanical failure or malfunction with the airplane that would have caused the runway excursion.

Although the PF reported about 16 minutes before touchdown that he received the ASOS observations for the previous 20 minutes and stated to the PM that the crosswind was at 13 or 14 kts, with the wind from 270° at 13 kts, a review of the 14 previous 5-minute ASOS observations revealed that gusts were reported in all but 2 of the 14 observations. The PF's reference specifically to the wind being from 270° at 13 kts corresponded to an observation that also reported gusts to 24 kts, which occurred about 23 minutes before the airplane touched down. That gust value exceeded the airplane's published crosswind limitation of 20 kts.

The gust values at the destination airport consistently exceeded the airplane's published crosswind limitation for the majority of the 5-minute ASOS observations in 1 hour 23 minutes preceding the accident. These conditions should have necessitated either an earlier diversion to an alternate airport that was more aligned with the wind or a go-around during short final approach after the flight crew was informed, when the airplane was about 1.2 nm from the runway threshold, that the wind was gusting above the published crosswind limitation.

The PF chose to continue with the landing and, due to a crosswind gust, failed to maintain directional control of the airplane after landing. The PF also did not incorporate the gust values into the crosswind calculations about 16 minutes before the accident, which likely influenced his decision to continue the approach.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: The failure of the pilot flying to maintain directional control after touchdown with wind gusts that exceeded the airplane's crosswind limitation. Contributing to the accident were the flightcrew's continued approach to the runway despite the consistent wind gust crosswind component that exceeded the airplane's published crosswind limitation, and their incorrect wind gust crosswind calculation in flight.

Findings

Aircraft	Directional control - Not attained/maintained
Personnel issues	Aircraft control - Pilot
Environmental issues	Gusts - Effect on operation
Personnel issues	Decision making/judgment - Pilot
Personnel issues	(general) - Pilot
Personnel issues	Lack of action - Pilot

Factual Information

History of Flight

Landing-landing roll	Loss of control on ground (Defining event)
Landing-landing roll	Runway excursion
Landing-landing roll	Collision with terr/obj (non-CFIT)

On January 28, 2024, about 1623 eastern standard time, a Honda Aircraft Company LLC HA-420 airplane, N103JT, was substantially damaged when it was involved in an accident at Orlando International Airport (MCO), Orlando, Florida. The airline transport pilot, commercial co-pilot, and two passengers were not injured. The airplane was operated as a Title 14 *Code of Federal Regulations* Part 135 on-demand passenger flight.

The left-seat pilot was the PF. According to the CVR recording, about 1 hour 22 minutes before landing, about 1501, the flight crew reviewed the MCO ATIS, which indicated the wind was from 270° at 14 kts, gusting to 24 kts. The CVR recorded the crew discussing the crosswind component associated with the reported winds, the airplane's operating limitations, and company procedures. They noted that a runway at a nearby airport, Orlando Executive Airport (ORL), was more aligned with the reported wind direction. The PM asked the passengers whether they had a car waiting for them at MCO, and commented to the PF about arranging transportation for the passengers from ORL to MCO.

About 1556, the crew obtained ATIS information Victor for MCO that reported the wind from 260° at 16 kts, gusting to 23 kts. The airplane continued toward MCO. About 1607, when the airplane was about 39 nm northwest of MCO, the crew discussed wind information from the ASOS at MCO. The PF stated that he checked the ASOS four times in the prior 20 minutes and only one report mentioned gusts. He added that the wind speed was reported to be 13 to 14 kts and the wind currently was from 270° at 13 kts. The PF also said they would ask for a wind check when the airplane was on final approach.

The airplane continued into the downwind, base, and final approach legs of the airport traffic pattern. At 1619:57, a crew member contacted the MCO air traffic control tower and advised the controller that the airplane was 2 miles from the final approach fix for runway 36L. The controller advised the crew that the wind was from 290° at 21 kts and cleared the airplane to land; the CVR recorded the crew calculating a crosswind component of 19 kts.

At 1622:06, when the flight was 1.2 nm from the approach end of runway 36L, a crew member of another airplane requested a wind check and the controller advised 290° at 19 kts, "…now gusting two four." The CVR recorded both crew members of the accident airplane state that

the calculated crosswind component was 19 kts. Figure 1 shows the wind data referenced by the crew before touchdown.

Wind Data Before Touchdown				
Observation Time	Observation Source	Wind Direction	Wind Speed (kts)	Wind Gusts (kts)
15:01	ATIS	270	14	24
15:56	ATIS (Victor)	260	16	23
16:07	ASOS	270	13	24
16:20	ATC wind advisory	290	21	
16:22	ATC wind advisory	290	19	24

Figure 1. Wind data referenced by the crew before touchdown

The PF continued the approach to runway 36L with a wind recorded on the flight data recorder from 286° true at 19 kts, although there was no recorded parameter for wind gusts. At about the time the airplane touched down, which occurred at 1622:54, the controller broadcast on the frequency for another airplane that was on a visual approach to runway 36L that the wind was from 290° at 20 kts with gusts of 24 kts.

After the accident airplane touched down, the PF applied left aileron control input to counter the crosswind and deployed the speedbrake. The airplane began drifting left, which the PF attempted to correct with right rudder input but with no effect. The airplane departed the left side of the runway surface, rolled onto the grass, and about 1623 impacted a runway distance remaining sign. The PF was then able to correct to the right, travel back onto the runway, and then taxi off the runway at taxiway E where he stopped the airplane. The airplane was secured and then evacuated.

The controller asked the crew if they experienced a flat tire, and a crew member responded, “Negative, we’re not sure, it could have been a gust, but uh we’re not sure.” The rudder position for the crosswind approach and when the nose landing gear contacted the runway could not be determined because weight-on-wheels and rudder input were not recorded parameters on the flight data recorder.

The operator reported there were no mechanical irregularities with the airplane during the flight and landing. The airplane flight manual (AFM) specified the crosswind limitation for the accident airplane as 20 kts. The operator’s flight operations training guidance to crews related to crosswind landings indicated that “gust limits” are not discussed in the AFM and are assumed to be 20 kts as well. The guidance further provided charts for documenting the crosswind and wind gust components based on runway width.

Using the wind component chart, based on the reported steady-state wind being 70° from the runway heading to the left at 20 kts, the crosswind component was 19 kts. Using the same

guidance, the gust crosswind component was calculated to be about 23 kts. Utilizing the same training document and the runway width of 100 ft, which was the maximum runway width specified on the chart, the maximum acceptable crosswind and gust components were each 20 kts. Verbiage on the document specified that if the provided wind from a “wind check” was beyond the crosswind limits, “You must wait for the next wind check.”

Postaccident, the operator developed “Go/No-Go winds criteria” that specified, “If any authorized weather report for a flight shows that, within the estimated time of arrival, the crosswind component will be out of the below limits,” then “…the flight shall NOT proceed to that destination airport.”

Postaccident examination of the airplane by an FAA inspector and a representative of the airplane manufacturer revealed no evidence of any failures or malfunctions of the primary or secondary flight controls. The rudder and aileron trims were observed in the neutral position. The airplane manufacturer reported that the left wing’s forward spar exhibited cracks and deformation; that damage was substantial. Although all tires exhibited scuffing, none were deflated.

Review of the impacted runway distance remaining sign revealed that all three aluminum posts were frangible incorporating a reduced circumference area. The center and western mounted posts did not fracture at the reduced circumference area but the corresponding mounts were fractured, while the eastern mount was not fractured but the post was fractured at the reduced circumference area.

The 5-minute ASOS weather observations at MCO between 1500 and 1605 were reviewed. The last of these observations was about 2 minutes after the PF advised that he checked the ASOS and reported the wind was from 270° at 13 kts there was one observation in which the wind direction and steady state wind velocity partially matched the PF’s comments. That observation occurred at 1600, within the time frame specified by the PF; that observation also reported that gusts were at 24 kts, which the PF did not state. Additionally, wind gusts were reported in all but 2 of the 14 observations. Figure 2 shows the ASOS observations between 1500 and when the airplane touched down.

ASOS Wind Data Before Touchdown			
Observation Time	Wind Direction	Wind Speed (kts)	Wind Gusts (kts)
15:00	270	18	27
15:05	270	16	27
15:10	280	16	23
15:15	280	15	22
15:20	270	11	20
15:25	290	13	
15:30	270	14	19
15:35	260	15	26
15:40	270	14	26
15:45	260	16	
15:50	270	12	21
15:55	260	16	24
16:00	270	13	24
16:05	270	17	22
16:07	PF reports checking ASOS		
16:10	270	14	22
16:15	280	11	
16:20	270	16	23
16:23	Touchdown		

Figure 2. ASOS observations between 1500 and when the airplane touched down.

Pilot Information

Certificate:	Airline transport; Commercial; Flight instructor	**Age:**	43,Male
Airplane Rating(s):	Single-engine land; Multi-engine land	**Seat Occupied:**	Left
Other Aircraft Rating(s):	None	**Restraint Used:**	4-point
Instrument Rating(s):	Airplane	**Second Pilot Present:**	Yes
Instructor Rating(s):	Airplane multi-engine; Airplane single-engine; Instrument airplane	**Toxicology Performed:**	
Medical Certification:	Class 1 None	**Last FAA Medical Exam:**	October 2, 2023
Occupational Pilot:	Yes	**Last Flight Review or Equivalent:**	September 28, 2023
Flight Time:	4520 hours (Total, all aircraft), 269 hours (Total, this make and model), 3216 hours (Pilot In Command, all aircraft), 56 hours (Last 90 days, all aircraft), 39 hours (Last 30 days, all aircraft)		

Co-pilot Information

Certificate:	Commercial	**Age:**	56,Male
Airplane Rating(s):	Single-engine land; Multi-engine land	**Seat Occupied:**	Right
Other Aircraft Rating(s):	None	**Restraint Used:**	4-point
Instrument Rating(s):	Airplane	**Second Pilot Present:**	Yes
Instructor Rating(s):	None	**Toxicology Performed:**	
Medical Certification:	Class 1 With waivers/limitations	**Last FAA Medical Exam:**	July 26, 2023
Occupational Pilot:	Yes	**Last Flight Review or Equivalent:**	April 26, 2023
Flight Time:	3408 hours (Total, all aircraft), 200 hours (Total, this make and model), 1336 hours (Pilot In Command, all aircraft), 73 hours (Last 90 days, all aircraft), 15 hours (Last 30 days, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	HONDA AIRCRAFT CO LLC	**Registration:**	N103JT
Model/Series:	HA-420 NO SERIES	**Aircraft Category:**	Airplane
Year of Manufacture:	2019	**Amateur Built:**	
Airworthiness Certificate:	Normal; Transport	**Serial Number:**	42000163
Landing Gear Type:	Retractable - Tricycle	**Seats:**	7
Date/Type of Last Inspection:	January 9, 2024 Continuous airworthiness	**Certified Max Gross Wt.:**	10780 lbs
Time Since Last Inspection:		**Engines:**	2 Turbo jet
Airframe Total Time:	4017.1 Hrs at time of accident	**Engine Manufacturer:**	General Electric
ELT:	C126 installed, not activated	**Engine Model/Series:**	HF-120
Registered Owner:	FRAYER JETS 7 LLC	**Rated Power:**	1997 Lbs thrust
Operator:	GC Aviation	**Operating Certificate(s) Held:**	On-demand air taxi (135)
Operator Does Business As:	Volato LLC	**Operator Designator Code:**	746L

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual (VMC)	**Condition of Light:**	Day
Observation Facility, Elevation:	KMCO,89 ft msl	**Distance from Accident Site:**	0 Nautical Miles
Observation Time:	16:20 Local	**Direction from Accident Site:**	160°
Lowest Cloud Condition:	Clear	**Visibility**	9 miles
Lowest Ceiling:		**Visibility (RVR):**	
Wind Speed/Gusts:	16 knots / 23 knots	**Turbulence Type Forecast/Actual:**	Unknown / None
Wind Direction:	270°	**Turbulence Severity Forecast/Actual:**	Unknown / N/A
Altimeter Setting:	29.98 inches Hg	**Temperature/Dew Point:**	21°C / 9°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	Fort Smith, AR (FSM)	**Type of Flight Plan Filed:**	IFR
Destination:	Orlando, FL	**Type of Clearance:**	IFR
Departure Time:	13:24 Local	**Type of Airspace:**	

Airport Information

Airport:	Orlando International Airport MCO	**Runway Surface Type:**	Asphalt;Concrete
Airport Elevation:	96 ft msl	**Runway Surface Condition:**	Dry
Runway Used:	36L	**IFR Approach:**	Visual
Runway Length/Width:	12004 ft / 200 ft	**VFR Approach/Landing:**	

Wreckage and Impact Information

Crew Injuries:	2 None	**Aircraft Damage:**	Substantial
Passenger Injuries:	2 None	**Aircraft Fire:**	None
Ground Injuries:	N/A	**Aircraft Explosion:**	None
Total Injuries:	4 None	**Latitude, Longitude:**	28.423541,-81.327267

Administrative Information

Investigator In Charge (IIC):	Monville, Timothy
Additional Participating Persons:	Ryan M. Sebek; FAA FSDO; Orlando, FL Thomas Sully; Honda Aircraft Company; Greensboro, NC
Original Publish Date:	April 3, 2026
Last Revision Date:	
Investigation Class:	Class 3
Note:	The NTSB did not travel to the scene of this accident.
Investigation Docket:	https://data.ntsb.gov/Docket?ProjectID=193714