Aviation Investigation Final Report

Location:	Montgomery, Alabama	**Accident Number:**	DCA23LA109
Date & Time:	December 31, 2022, 15:39 Local	**Registration:**	N264NN
Aircraft:	EMBRAER S A ERJ 170-200 LR	**Aircraft Damage:**	Minor
Defining Event:	Prop/jet/rotor blast/suction	**Injuries:**	1 Fatal, 63 None
Flight Conducted Under:	Part 121: Air carrier - Scheduled		

Analysis

After an uneventful flight, Envoy Air flight 3408 (dba American Eagle) taxied with both engines operating to its assigned gate and parked at Montgomery Regional Airport, Montgomery, Alabama. The No. 1 (left) engine was still operating while they waited on ground power due to an inoperative auxiliary power unit (a minimum equipment list item). Shortly after arriving at the gate, the captain saw a “FAIL” symbol on his engine display, felt the airplane shake violently, and noticed that the left engine had shut down. The flight crew subsequently determined that one of the ramp agents had been ingested into the No. 1 engine.

Ramp agents from Piedmont Airlines were responsible for supporting airplanes after arrival at the airport. Before the accident airplane arrived, the ramp agents discussed each person’s role and the safety precautions that were to be taken, which included maintaining a position away from the airplane until the engines had spooled down and the red beacon lights were turned off (except when the lead ramp agent had to approach the airplane to chock the nosewheel). Security video showed at least one of the red beacon lights was still on when the accident ramp agent walked directly in front of the left engine before being ingested into the engine.

This investigation evaluated the accident ramp agent’s training and American Eagle’s procedures, her medical conditions and toxicology results, and her judgment. In addition, the investigation considered the result of the company’s drug and alcohol use policy and the benefit of classifying ramp personnel as a safety-sensitive position regarding federal drug and alcohol testing requirements.

Ramp Training and Operator Procedures

The accident ramp agent completed new-hire ramp training in December 2021 and recurrent training in September 2022. The training included a discussion about jetblast and ingestion zones and procedures for safely approaching an engine. The *American Eagle Ground Operations Manual*, which provided guidance to ground personnel supporting American Eagle regional flights, also specified jetblast and ingestion zones, engine spool down, procedures for approaching an airplane, and the importance of waiting until the airplane's red beacon lights were turned off before doing so. The manual also stated that a ramp agent should never pass under the fuselage to move from one side of the airplane to the other.

According to the lead ramp agent on the day of the accident, ramp personnel were required to stay 15 ft away from an engine, consistent with guidance in the *American Eagle Ground Operations Manual*. The accident ramp agent should have been familiar with the company's ramp safety policy because her position required her to continuously work around jet-powered airplanes. The 15-ft guidance provided a buffer that was almost two times the airplane manufacturer's boundary for the inlet hazard area (8.3 ft).

In addition, the lead ramp agent ensured that the accident ramp agent participated in the safety huddle and understood her duties while providing ground support for the Envoy Air airplane. Notably, he tried to warn her, while she was at the back of the airplane, to move away from the operating engine. Thus, the accident ramp agent's training and the operator's procedures were not factors in this accident.

Medical Conditions and Toxicology Results

The accident ramp agent had relapsing-remitting multiple sclerosis, which can adversely affect cognition, including executive functioning, information processing, and working memory. Although no cognitive impairment was documented at the ramp agent's most recent neurology visits, she had a substantial risk of such impairment because of her condition. This investigation was unable to determine whether she was experiencing a multiple sclerosis flare at the time of the accident.

The accident ramp agent also had diabetes that was treated with medications, including insulin. People with medication-treated diabetes are at risk for both abnormally high (from diabetes) and abnormally low (from medication effects) blood glucose. The ramp agent's postmortem urine glucose result was normal; thus, she was not likely experiencing a major metabolic disturbance from extreme high blood sugar at the time of the accident. The investigation was unable to determine, from the available evidence, whether the ramp agent was experiencing milder high blood sugar effects (such as fatigue) or low blood sugar effects (such as diminished concentration).

The ramp agent's toxicology testing detected delta-9-THC and its metabolites, indicating that she had used a cannabis product. Cannabis has the potential to cause cognitive and

psychomotor impairment and can worsen cognitive impairment in individuals with multiple sclerosis. However, a person's blood concentration of delta-9-THC does not directly predict that person's impairment. Details of the ramp agent's cannabis use, including dose, route, timing, and specific effects, could not be determined from the available toxicological evidence.

The ramp agent's toxicology testing also detected carboxy-delta-8-THC, a non-psychoactive metabolite of delta-8-THC (which was not detected). This result indicated that the ramp agent had likely used a product containing chemically synthesized delta-8-THC given that very little delta-8-THC occurs naturally in the cannabis plant. However, because no delta-8-THC or psychoactive metabolite of delta-9-THC was detected in the ramp agent's blood, she was not likely impaired by delta-8-THC effects at the time of the accident.

Ramp Agent's Judgment

Multiple cues were available to the accident ramp agent to indicate that the left engine was running. These cues included the airplane's red beacon lights, which were on and visible; the sound of the operating engine, which would have been discernible, even with the ear protection that the ramp agents were wearing; and the accident ramp agent's encounter with the left engine's jetblast (as shown on security video) when placing the safety cone at the tail of the airplane. Therefore, the accident ramp agent was likely aware that the left engine was still operating. However, the accident ramp agent's actions on the day of the accident were not consistent with those that would be expected for someone in that position.

No task on the day of the accident or on any day that accident ramp agent worked would have placed her in front of the left wing and engine. The accident ramp agent's decision to walk in front of the engine, despite operating engine cues, was also inconsistent with her training and the briefings that she received before the airplane landed. The accident ramp agent's records showed no previous instances in which she was within the engine ingestion zone while an engine was operating, and, as previously stated, the lead ramp agent reported that he tried to alert her that the left engine was still operating.

The accident ramp agent's behavior at the time of the accident demonstrated that her judgment was deficient. Given her identified medical and toxicological cognitive risk factors, the ramp agent's deficient judgment was likely due to cognitive impairment. The extent to which individual cognitive risk factors, such as the ramp agent's multiple sclerosis and cannabis use, contributed to this impairment could not be determined based on the available evidence.

Company Policy on Drug and Alcohol Use

Piedmont Airlines had a company drug and alcohol policy that prohibited employees from reporting to work in a condition that would impair satisfactory work performance due to drugs or alcohol. The ramp agent acknowledged this policy electronically on November 10, 2021. However, toxicology results showed that the accident ramp agent had used a cannabis

product at some point before her work shift. Thus, the company policy did not deter the accident ramp agent's from working in a potentially impaired condition.

The Department of Transportation does not consider ramp personnel positions to be safety sensitive, so the company was not required to provide mandatory drug and alcohol training and perform required drug and alcohol testing, including random testing on its ramp personnel. If these positions had been classified as safety sensitive, the accident ramp agent would have been subject to federally required drug testing, and the company might have been able to detect the accident ramp agent's use of cannabis and take appropriate action in response, including removing her from safety-sensitive functions.

Probable Cause and Findings

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

The ramp agent's cognitive impairment, which resulted in her (1) inconsistent behavior with trained procedures and pre-landing briefings, (2) presence on the left side of the airplane while the left engine was still operating, and (3) subsequent ingestion into the engine.

Findings

Personnel issues	Illicit drug - Ground crew
Personnel issues	Neurological - Ground crew
Personnel issues	Task monitoring/vigilance - Ground crew
Personnel issues	(general) - Ground crew

Factual Information

History of Flight

Standing-engine(s) operating	Prop/jet/rotor blast/suction (Defining event)
Standing-engine(s) operating	Ground handling event

On December 31, 2022, about 1539 central standard time, Envoy Air flight 3408, an Embraer 170 airplane, N264NN, sustained minor damage when it was involved in an accident while parked at the gate with one engine operating at Montgomery Regional Airport (MGM), Montgomery, Alabama. The 63 passengers and crew aboard the airplane were not injured. One ramp agent on the ground was fatally injured. The flight was operating under Title 14 *Code of Federal Regulations* Part 121 as a regularly scheduled domestic passenger flight from Dallas Fort Worth International Airport (DFW), Dallas, Texas, to MGM.

On the day of the accident, ground crewmembers (also referred to as ramp agents) who were employed by Piedmont Airlines were assisting airplanes after their arrival at MGM. One ground crewmember reported that the ground crew held a safety briefing about 10 minutes before flight 3408 arrived at the gate.

The ground crew also held a subsequent safety "huddle" before the airplane arrived at the gate. The purpose of the safety huddle was to restate information provided during the safety briefing; specifically, the engines would remain running until ground power was connected, and the ground crewmembers should not approach the airplane at that point. The safety huddle also emphasized that safety cones should not be set down until the engines were off and had spooled down and the flight crew extinguished the airplane's red beacon lights.

The flight crewmembers reported that, after an uneventful flight with an inoperative auxiliary power unit (a minimum equipment list item), they taxied the airplane to the ramp with both engines running for the company-required 2-minute engine cool-down period. As the airplane approached the gate, the flight crew saw three ramp agents and noted that the gate area was clear. After stopping the airplane and setting the parking brake, the captain gave the brake set hand signal to the ramp agent who was marshalling the airplane, which was followed by the hand signal to connect the airplane to ground power.

As the captain was shutting down the No. 2 (right) engine, the "DOOR CRG FWD OPEN" engine indicating and crew alerting system message appeared, indicating that ramp personnel had opened the forward cargo door (where the baggage was located). The first officer (FO) opened his cockpit window to inform the ramp agents that the engines were still operating. The

captain made a brief announcement to the passengers, asking them to remain seated until the seatbelt sign was turned off.

The captain then told the FO that the seatbelt sign should stay illuminated until the airplane was connected to ground power and the No. 1 (left) engine (which was operating at the time due to the inoperative auxiliary power unit) was shut down. Immediately thereafter, the captain saw a "FAIL" symbol on the engine display, felt the airplane "shake violently," and noticed that the No. 1 engine had shut down. The captain stated that he was unsure of what had occurred and that he extinguished the emergency lights, shut off both batteries, and left the flight deck to investigate. The captain subsequently realized that a ramp agent had been ingested into the engine.

Surveillance video showed that, after the airplane was marshalled to the gate and the nosewheel was chocked, the accident ramp agent began walking toward the airplane tail to place a safety cone. (The video did not capture the accident ramp agent placing a safety cone at the left wingtip, which was also one of her responsibilities.) As she approached the jet-blast area directly behind the No. 1 engine, she stumbled and continued walking before leaving the camera's field of view.

The accident ramp agent reappeared on camera and began walking away from the airplane and toward the left wingtip. After temporarily disappearing from the camera's field of view again, the ramp agent reappeared on camera as she was walking alongside the leading edge of the left wing toward the fuselage. One second later, she appeared to stop in front of the No. 1 engine and turn to the left (away from the engine and facing the camera). Subsequently, her left leg moved back toward the operating No. 1 engine. As her left foot touched the ground, her right leg lifted off the ground and moved upward, and her torso entered the engine inlet. Immediately afterward, her left leg lifted off the ground and entered the engine inlet.

The airplane's upper red beacon light appeared illuminated throughout the accident sequence. The lower red beacon light could not be seen on the surveillance video.

According to a postaccident interview with the lead ramp agent, on the day of the accident, the accident ramp agent was expected to place a safety cone at the left wingtip, walk to the tail of the airplane and place another safety cone there, and then continue around the tail to the right side of the fuselage to assist with baggage unloading. The lead ramp agent stated that, after he set the chocks on the nosewheel of the airplane, he observed the accident ramp agent about to set the safety cone at the airplane tail while the No.1 engine was still operating. He yelled at and motioned for her to move away from the airplane. She began to move away from the airplane, and he turned away so that he could operate the ground power cord. Shortly thereafter, he heard a "bang" and noticed that the left engine had shut down. The lead ramp agent stated that none of the accident ramp agent's duties would have required her to be on the left side of the airplane in front of or near the No. 1 engine.

Pilot Information

Certificate:	Airline transport; Commercial	**Age:**	47,Male
Airplane Rating(s):	Single-engine land; Multi-engine land	**Seat Occupied:**	Left
Other Aircraft Rating(s):	None	**Restraint Used:**	5-point
Instrument Rating(s):	Airplane	**Second Pilot Present:**	
Instructor Rating(s):	Airplane single-engine	**Toxicology Performed:**	
Medical Certification:	Class 1 With waivers/limitations	**Last FAA Medical Exam:**	October 12, 2022
Occupational Pilot:	Yes	**Last Flight Review or Equivalent:**	October 6, 2022
Flight Time:	5893 hours (Total, all aircraft), 325 hours (Total, this make and model)		

Co-pilot Information

Certificate:	Airline transport; Commercial	**Age:**	27,Male
Airplane Rating(s):	Single-engine sea; Multi-engine land	**Seat Occupied:**	Right
Other Aircraft Rating(s):	None	**Restraint Used:**	5-point
Instrument Rating(s):	Airplane	**Second Pilot Present:**	
Instructor Rating(s):	Airplane multi-engine; Airplane single-engine; Instrument airplane	**Toxicology Performed:**	
Medical Certification:	Class 1 With waivers/limitations	**Last FAA Medical Exam:**	April 18, 2022
Occupational Pilot:	Yes	**Last Flight Review or Equivalent:**	September 10, 2022
Flight Time:	1655 hours (Total, all aircraft), 159 hours (Total, this make and model)		

Aircraft and Owner/Operator Information

Aircraft Make:	EMBRAER S A	**Registration:**	N264NN
Model/Series:	ERJ 170-200 LR	**Aircraft Category:**	Airplane
Year of Manufacture:	2018	**Amateur Built:**	
Airworthiness Certificate:	Transport	**Serial Number:**	17000765
Landing Gear Type:	Retractable - Tricycle	**Seats:**	81
Date/Type of Last Inspection:	Continuous airworthiness	**Certified Max Gross Wt.:**	82364 lbs
Time Since Last Inspection:		**Engines:**	2 Turbo fan
Airframe Total Time:	10329 Hrs at time of accident	**Engine Manufacturer:**	GE
ELT:	C91A installed, not activated	**Engine Model/Series:**	CF34-8E5
Registered Owner:	AMERICAN AIRLINES INC	**Rated Power:**	13420 Lbs thrust
Operator:	Envoy Air Inc.	**Operating Certificate(s) Held:**	Flag carrier (121)
Operator Does Business As:	American Eagle	**Operator Designator Code:**	SIMA

The airplane was a mostly metallic, low-wing, conventional tail monoplane. The airplane's two high-bypass-ratio turbofan engines were mounted below the wings. The accident airplane model was also referred to as an Embraer ERJ175.

The airplane was equipped with upper and lower red beacon lights mounted on the top of the fuselage and the underside of the airplane, respectively. The beacon lights incorporated light-emitting diode bulbs that generated 400 candela. The beacon switch located in the cockpit overhead panel controlled both beacon lights.

The *Embraer 175 Airport Planning Manual* depicted the inlet and exhaust hazard areas, as shown in figure 1. The inlet hazard area comprised a 2.5-meter (8.3-ft) radius around each engine inlet. The exhaust hazard area extended about 26 meters (85 ft) behind the engines and generated wind velocities of at least 65 miles per hour.

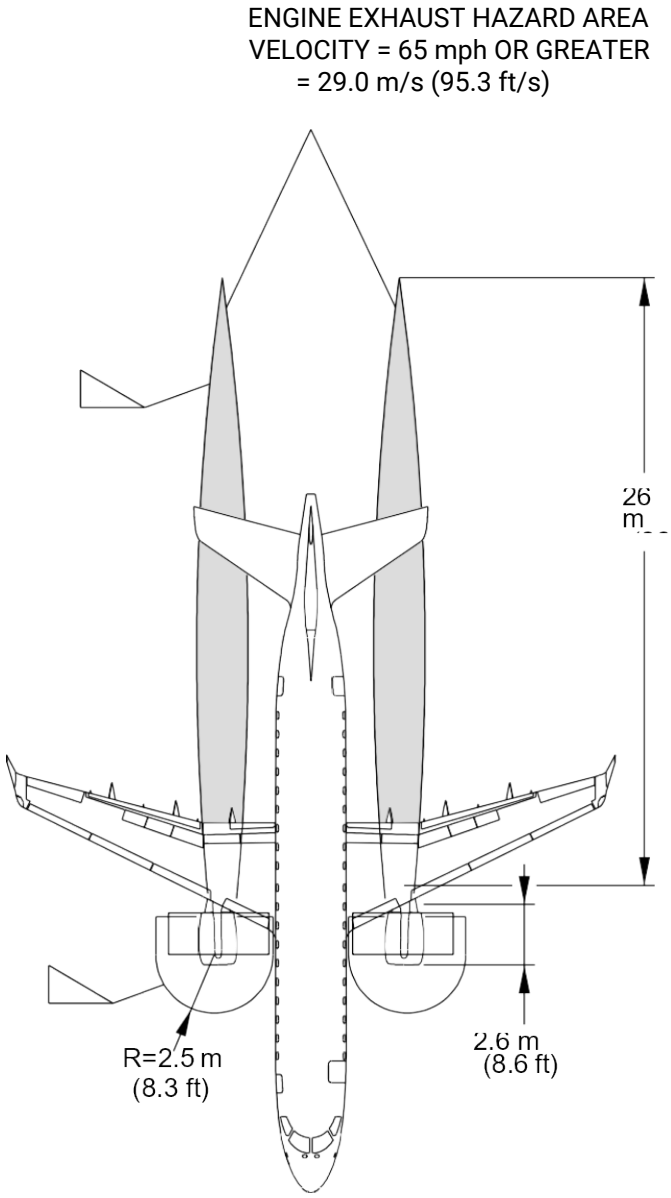

Figure 1. Inlet and exhaust hazard area (Source: *Embraer 175 Airport Planning Manual*).

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual (VMC)	**Condition of Light:**	Day
Observation Facility, Elevation:		**Distance from Accident Site:**	
Observation Time:		**Direction from Accident Site:**	
Lowest Cloud Condition:		**Visibility**	
Lowest Ceiling:		**Visibility (RVR):**	
Wind Speed/Gusts:	/	**Turbulence Type Forecast/Actual:**	/
Wind Direction:		**Turbulence Severity Forecast/Actual:**	/
Altimeter Setting:		**Temperature/Dew Point:**	
Precipitation and Obscuration:			
Departure Point:	Dallas Ft Worth , TX	**Type of Flight Plan Filed:**	IFR
Destination:	Montgomery, AL	**Type of Clearance:**	None
Departure Time:		**Type of Airspace:**	Class D

Airport Information

Airport:	MONTGOMERY RGNL (DANNELLY FLD) MGM	**Runway Surface Type:**	Asphalt
Airport Elevation:	221 ft msl	**Runway Surface Condition:**	Dry
Runway Used:	28	**IFR Approach:**	ILS
Runway Length/Width:	9020 ft / 150 ft	**VFR Approach/Landing:**	Traffic pattern

Wreckage and Impact Information

Crew Injuries:	4 None	**Aircraft Damage:**	Minor
Passenger Injuries:	59 None	**Aircraft Fire:**	None
Ground Injuries:	1 Fatal	**Aircraft Explosion:**	None
Total Injuries:	1 Fatal, 63 None	**Latitude, Longitude:**	32.302887,-86.39117

Medical and Pathological Information

The accident ramp agent's medical history included relapsing-remitting multiple sclerosis, diabetes mellitus, and obesity. The ramp agent's most recent in-person visit with her neurologist was in August 2021. At that time, her cognition, including her attention, concentration, and orientation, was assessed and documented as normal. (Multiple sclerosis can adversely affect cognition, including executive functioning, information processing, and working memory.) The neurologist noted that the ramp agent's multiple sclerosis was stable with medication and that she was doing well with her diabetes management, which included the oral medication metformin and the injectable medication liraglutide. As part of this visit, magnetic resonance imaging of the ramp agent's brain was conducted; the results showed multiple abnormal areas consistent with demyelination, which was similar to the results of prior imaging. Additionally, new abnormal areas and an area with evidence of active demyelination were detected.

The ramp agent's next visit with her neurologist—a telehealth visit in February 2022—was her most recent documented visit before the accident. Her documented medications at that visit were the same as before except for the addition of insulin to her diabetes regimen. At the visit, the ramp agent reported that, at times at work, her legs "go to spaghetti" or her arms "don't cooperate." She further reported struggling with the heavy lifting required for baggage handling as well as having recent vision loss and high blood sugars, which had resolved. The neurologist documented that the ramp agent's multiple sclerosis continued to be stable with no evidence of new relapse. The neurologist made no changes to the ramp agent's treatment and noted that she was doing well with medications for her symptoms.

The Alabama Department of Forensic Sciences, Montgomery, Alabama, performed an autopsy of the accident ramp agent. According to the autopsy report, her cause of death was multiple blunt force injuries. Due to her injuries, her brain was not available for examination.

The Federal Aviation Administration (FAA) Forensic Sciences Laboratory performed toxicological testing of postmortem specimens from the ramp agent. Delta-9-tetrahydocannabinol (delta-9-THC) was detected in cavity blood at 7.4 ng/mL and in urine. Also, 11-hydroxy-THC was detected in urine but not in cavity blood. Carboxy-delta-8-THC and 9-THC were detected in urine and cavity blood. Urine glucose was normal. No ethanol was detected.

Delta-9-THC is the primary psychoactive chemical in cannabis. Delta-9-THC is commonly smoked or ingested recreationally by users seeking mind-altering effects. Users may also seek to treat symptoms of illness. Psychoactive effects of delta-9-THC vary depending on the user, dose, and route of administration, but the effects may impair motor coordination, reaction time, decision-making, problem-solving, and vigilance. Although some people use cannabis to treat multiple sclerosis symptoms, cannabis can worsen cognitive impairment in these individuals.

Delta-9-THC has a similar structure and psychoactive effects as another chemical, delta-8-THC. Although delta-8-THC was not detected in the accident ramp agent's toxicology, its non-psychoactive metabolite carboxy-delta-8-THC was detected. Delta-8-THC is widely available from retailers in multiple products for oral consumption, smoking, and inhalation. Very little delta-8-THC is present in the cannabis plant, so the delta-8-THC used in consumer products is typically manufactured chemically. Delta-8-THC products are marketed with various claims but have not been evaluated or approved by the US Food and Drug Administration for safe use in any context.

Carboxy-delta-9-THC is a non-psychoactive metabolite of delta-9-THC. Further, 11-hydroxy-THC, which was detected in the ramp agent's urine only, is a psychoactive metabolite of either delta-9-THC or delta-8-THC (the testing method did not distinguish between the two).

Organizational and Management Information

Envoy Air Inc. was a wholly owned subsidiary of American Airlines Group. The flight was doing business as American Eagle. Piedmont Airlines, also a wholly owned subsidiary of American Airlines Group, was responsible for providing ground support in MGM.

The *American Eagle Ground Operations Manual*, dated July 13, 2022, was developed through a partnership between the FAA and American Eagle regional carriers to provide guidance to ground personnel assisting American Eagle flights. Chapter 2 of the manual, Ramp Safety, section 2.1, stated in part, **"To Keep Employees Alive and Aircraft Intact, You Will…NEVER** approach an aircraft to position ground equipment next to an aircraft or open cargo bin doors until the engines are shut down and the rotating beacon(s) turned off, except when conducting an approved single engine turn." Chapter 2, section 2.9, stated that an unsafe act was "walking or running underneath the aircraft fuselage to create a short cut to the other side."

Chapter 4, Aircraft Movement, section 4.6.1, General, stated the following about jetblast and ingestion zones:

> *Jet engines spin with powerful speed and are extremely dangerous until spooled down. The area in front of the engine is called the ingestion zone. The ingestion zone for all aircraft types is 15 feet. You must never enter the ingestion zone until the engine has spooled down.*

The manual also provided information on the jetblast zone created by the exhaust of an engine.

> *The jetblast zone at American Airlines and American Eagle is 100 feet for each aircraft when the engines are at idle speed.*

During a postaccident interview, the lead ramp agent stated that ramp personnel were responsible for staying 15 ft away from a running engine, but he noted that this distance could be difficult for someone to judge accurately. In addition, he stated that the sound of the operating engine would have been discernible, even with the ear protection that ramp agents were required to wear.

The *American Eagle Ground Operations Manual* also provided the following spool-down information:

> *The engine must be spooled down before entering the ingestion zone. This can take between 30-60 seconds, depending on aircraft type. This applies to both wing and fuselage/tail mounted engines. You must wait until you can clearly see the individual fan blades before entering the ingestion zone.*

Chapter 10, Embraer 170/175 Regional Jet, section 10.1, Hazard Areas, stated that "the ERJ170/175 has under wing mounted engines. Use extreme caution when near any jet aircraft that has its engines running. The area in front of the engine intake, as well as the jetblast area behind the jet aircraft, are hazardous areas." A figure associated with this information warned, "DO NOT APPROACH ANY AIRCRAFT WITH ENGINES OPERATING."

Additional Information

The accident ramp agent, age 34, had worked for Piedmont Airlines at MGM since November 2021; her position required her to continuously work around jet-powered airplanes. She completed new-hire ramp training in December 2021, which included a discussion about jetblast, ingestion zones, and procedures for safely approaching an engine. The ramp agent's training records indicated that she had satisfactorily completed recurrent training in September 2022.

In December 2021, a Piedmont Airlines manager completed an employee corrective action form about the ramp agent, which indicated that she had been demonstrating unsatisfactory performance on the airport ramp related to task management. Another employee corrective action form about the accident ramp agent, dated August 2022 (about 4 months before the

accident), stated in part that she had been “asked on numerous occasions” to ensure that her appearance was consistent with company standards.

During a postaccident interview, the lead ramp agent stated that his duties included conducting the safety huddle, assigning responsibilities to other ramp agents, informing ramp agents of any special circumstances related to an arriving airplane (such as the inoperative auxiliary power unit on the accident airplane), and ensuring that the ramp is set up properly.

A service bulletin was available to equip airplane engines with spinners that have spiral painting to provide a visual cue showing engine operation. Envoy Air had not implemented the service bulletin.

The Department of Transportation does not consider ramp personnel positions to be safety sensitive. Therefore, ramp personnel are not required to participate in drug and alcohol training or undergo required drug and alcohol testing, including random testing.

Piedmont Airlines had, in its employee handbook, a drug and alcohol company policy. The policy stated that the following conduct is prohibited:

> *Reporting to or being at work in a condition that impairs satisfactory work performance due to drugs and/or alcohol. This includes alcohol in any form and from any source and includes both ‘legal’ drugs for which the employee does not have a current, valid prescription and illegal drugs.*

The ramp agent acknowledged this policy electronically on November 10, 2021.

Administrative Information

Investigator In Charge (IIC):	Banning, David
Additional Participating Persons:	Edward Delehant III; Envoy Air Inc; Irving , TX Julie Schell; Piedmont Airlines Bill Davis; Piedmont Airlines G. Jason Hunter; Piedmont Airlines Matthew Rigsby; FAA AVP-110; Fort Worth, TX Mitch Mitchell; FAA AVP-110 Sam Farmiga; General Electric
Original Publish Date:	December 19, 2024
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=106517