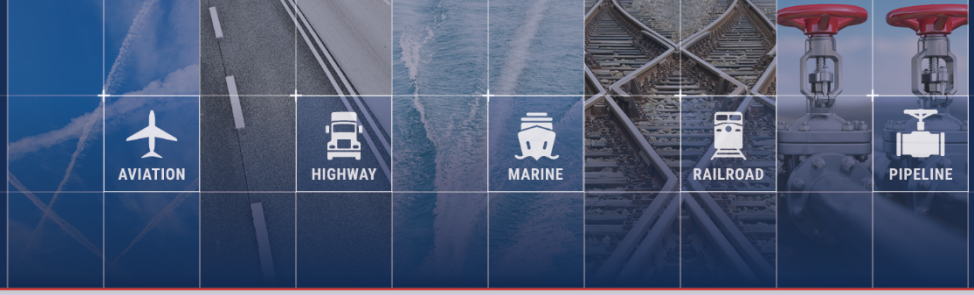

Aviation Investigation Final Report

Location:	St Petersburg-Clearwater, Florida	**Incident Number:**	OPS21LA002
Date & Time:	April 29, 2021, 15:07 Local	**Registration:**	N306NV (A1); N370SD (A2)
Aircraft:	Airbus A319-112 (A1); Cessna M337B (A2)	**Aircraft Damage:**	None (A1); None (A2)
Defining Event:	Air traffic event	**Injuries:**	129 None (A1); 1 None (A2)
Flight Conducted Under:	Part 121: Air carrier - Scheduled (A1); Part 91: General aviation - Personal (A2)		

Analysis

Review of the radar data showed that N370SD, a Cessna 337, was on a right downwind for runway 22 at 300 feet when it overflew runway 18, and at the same time Allegiant Air flight 803 (AAY803), an Airbus A319, was at 200 feet departing runway 18. The closest proximity was 100 feet vertically and 369 feet laterally. The crew of AAY803 saw the Cessna 337 and took evasive action by stopping their takeoff climb and maintaining 200 feet, and flew underneath the Cessna 337, which was at 300 feet as the airplane's paths intersected over the runways.

The local controller did not visually scan all runways and airspace when he instructed the Cessna 337 pilot to enter a right downwind, and again, when he issued a takeoff clearance to the Allegiant Air flight; the lack of fully scanning all runways and airspace resulted in the local controller losing situational awareness of the Cessna 337, and ultimately not ensuring positive control and separation between the Allegiant Air flight and the Cessna 337.

The Cessna 337 pilot's downwind leg for runway 22 was significantly less than the standard 1/2 to 1 mile defined downwind leg distance from the runway, which placed the Cessna 337 in a closer vicinity to the runway intersections than what was expected. Additionally, the Cessna 337 pilot did not fly a standard traffic pattern altitude, and the local controller did not instruct or advise the pilot that the traffic pattern altitude was 1,000 feet. PIE airport did not have a charted traffic pattern altitude.

Probable Cause and Findings

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

The air traffic controller’s failure to properly scan the runway and local area, and their general loss of situational awareness, resulting in a near midair collision. Contributing to the incident was the Cessna 337 pilot's poor decision making when he failed to fly the standard downwind leg distance from the runway and to maintain the standard traffic pattern altitude.

Findings

Personnel issues (A1)	Lack of action - ATC personnel
Personnel issues (A1)	Monitoring other aircraft - ATC personnel
Personnel issues (A1)	(general) - ATC personnel
Personnel issues (A2)	Flight planning/navigation - Pilot
Personnel issues (A2)	Lack of action - Pilot
Personnel issues (A2)	Incorrect action performance - Pilot
Personnel issues (A2)	Task monitoring/vigilance - ATC personnel

Factual Information

History of Flight

Takeoff (A1)	Air traffic event (Defining event)
Approach-VFR pattern downwind (A2)	Near midair/TCAS alert/loss of separation

On April 29, 2021, about 1507 EDT, a near midair collision occurred at the St. Pete-Clearwater International Airport (PIE), St Petersburg-Clearwater, Florida, when AAY803, while on initial climb from runway 18, took evasive action to avoid a midair collision with N370SD that was crossing over head of the runway about midfield, while on the right downwind for runway 22. AAY803 was being operated under Title 14 Code of Federal Regulations (CFR) Part 121 and N370SD was operated under Title 14 CFR Part 91. There were no injuries reported to the crew or passengers of either flight, and no damage to the aircraft. Daytime visual meteorological conditions prevailed at the time of the incident.

About 1457, N370SD departed Albert Whitted Airport (SPG), St. Petersburg, Florida and flew to the west and then northwest along the intercoastal waterway about 1,100 ft above mean sea level (msl). The flight made a 270 degree turn and then flew to the northeast towards PIE.

Figure 1 is the PIE airport diagram and shows the locations of runway 22 and runway 18 circled in red.

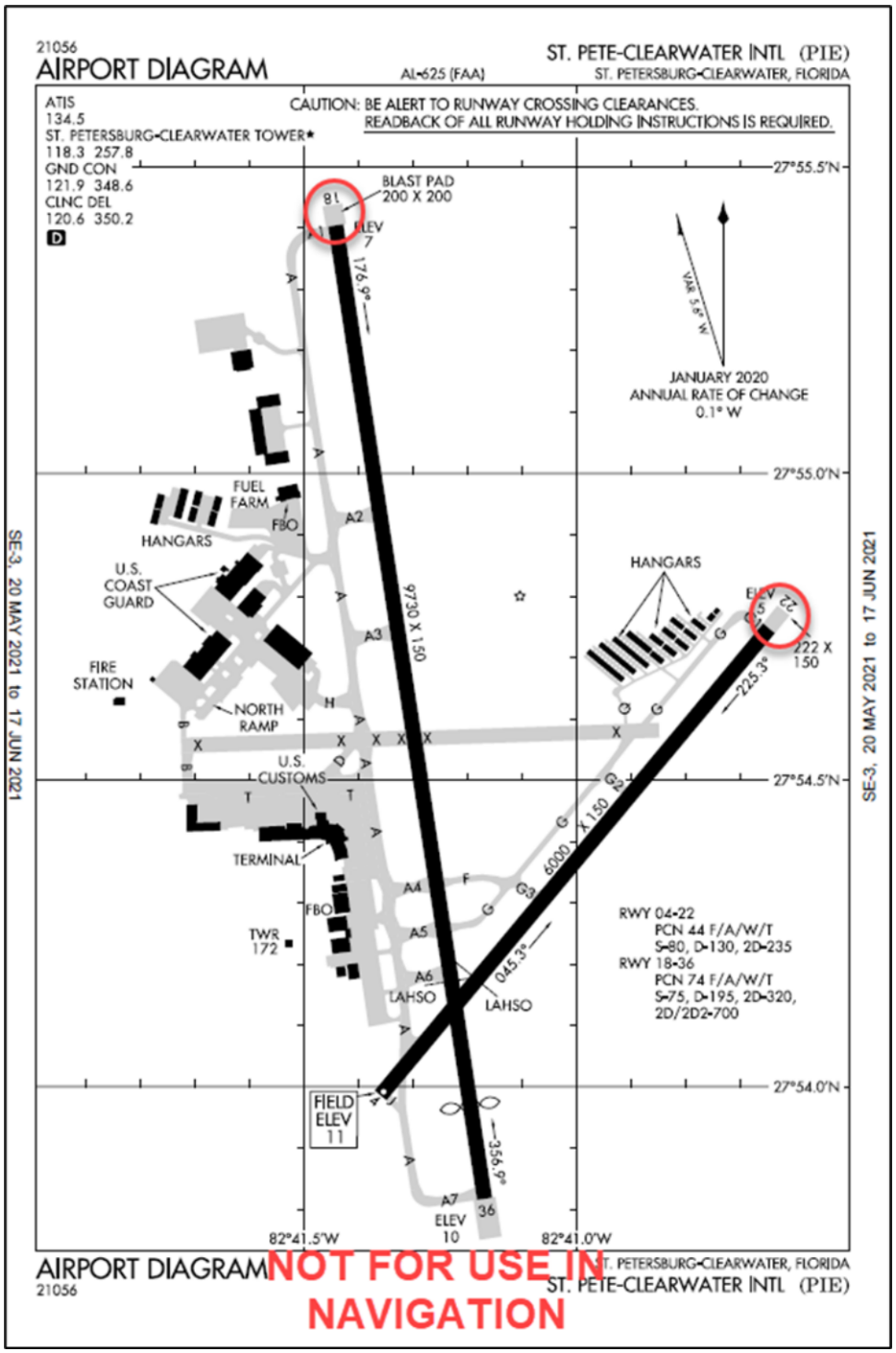

Figure 1. PIE airport diagram showing locations of runway 18 and runway 22.

About 1501, the pilot of N370SD checked in with the PIE LC controller and said they had Automatic Terminal Information Service (ATIS) information November. The LC controller asked the pilot to “say again.” The pilot of N370SD responded with his call sign.

About 1502, the LC controller instructed the pilot of N370SD to squawk 0163 and requested the pilot to say his intentions. The pilot readback the squawk and informed the controller that

he wanted to make a full stop landing. The LC controller instructed the pilot to fly eastbound and then enter a left downwind for runway 22. The pilot readback, “eastbound left downwind runway 22.” The LC controller asked the pilot of N370SD if he had ATIS information November. The pilot acknowledged “affirmative, November.”

About 1504, the LC controller instructed AAY803 to line up and wait (LUAW) on runway 18 and told the crew they had traffic on a 7-mile final. The crew of AAY803 responded, “line up and wait.”

About 1505, the LC controller informed the pilot of N370SD that he had to change plans and instructed the pilot to turn 20 degrees to the left and enter a right downwind to runway 22. The pilot readback, “right downwind runway 22.”

About 1506, the LC controller cleared AAY803 for takeoff from runway 18. The crew responded, “cleared for takeoff 18, Allegiant 803.”

About 1507, the crew of AAY803 stated, “tower, Allegiant 803 what’s with the aircraft that we almost just hit.” The pilot of N370SD transmitted, “I have the aircraft in sight, sir, right downwind 22.” The LC controller instructed N370SD to continue to the right downwind.

The LC controller advised the crew of AAY803 that, “there’s traffic at 10 o’clock but they’re turning northeast bound and they’re no factor, and there was traffic that flew over the runway at 1,000 feet towards the approach end and they’re in a right downwind for runway 22, is that who you are talking about.” The crew of AAY803 stated, “yeah, we had to level off we were climbing right into them.” The pilot of N370SD stated, “I had the traffic in sight at all times sir.”

According to the AAY803 Captain’s statement, they were light and rotated about five hundred feet before the old runway 9/27. He called positive climb and the pilot flying (PF) called for the gear up. Since they were light the aircraft was climbing very fast. He reached over for the gear handle and saw an aircraft coming right at them about 200 feet higher at our one-thirty [clock] position. He immediately called for the PF to level off, pointed out the traffic and he left the gear down. When clear of traffic they continued the climb. He contacted the tower to report the near midair and the controller responded the aircraft was at 1,000 feet.

The LC controller then instructed AAY803 to contact Tampa departure control. The crew of AAY803 responded “contact departure.”

FAA radar data showed that at 1507:02 N370SD was on a right downwind for runway 22, at an altitude of 300 feet and a lateral distance of about 800 feet from the centerline of runway 22, when it overflew runway 18. At the same time AAY803 was at 200 feet departing runway 18. The closest proximity was 100 feet vertically and 369 feet laterally.

Figure 2 is satellite imagery overlaid with FAA radar data showing the closest proximity between N370SD and AAY803. The figure provides a close-up overhead view of the location. A legend of pertinent information is located in the bottom right corner of this figure.

Figure 2. FAA Radar data overlaid on satellite imagery illustrating the flights routes of N370SD and AAY803, and the location of the closest proximity to each other.

Figure 3 is satellite imagery overlaid with FAA radar data illustrating flight paths of N370SD and AAY803 from a side view. A legend of pertinent information is located in the bottom right corner of this figure.

Figure 3. FAA Radar data overlaid satellite imagery illustrating the flight paths of N370SD and AAY803, from a side view perspective.

About 1508, the LC controller advised the pilot of N370SD that he would call his base turn. Then the LC controller instructed the pilot to turn his base and asked what his altitude was. The first part of the pilot's transmission was indiscernible, and although the last part of the transmission was intermittently distorted, the pilot was heard stating, "turn base."

The LC controller asked the pilot again what his altitude was. The pilot responded, "700 feet at the moment." The LC informed the pilot that he could not understand him. The first part of the pilot's transmission was indiscernible, and although the last part of the transmission was intermittently distorted, the pilot of N370SD was heard stating, "700 feet at this time." The LC

controller said, “understand 700 feet” and informed the pilot that he was not receiving his mode C at that point.

About 1509, the LC controller cleared N370SD to land on runway 22. The pilot read back “cleared to land.” Two minutes later N370SD landed on runway 22.

According to the pilot of N370SD, “My recollection of the flight into KPIE on the day in question is very clear, the air traffic controller cleared me to "left downwind 22" whilst established left downwind 22 I was instructed "change of plan RIGHT downwind 22." At all times I had the Allegiant jet in view. On approaching [runways] 36-18 I saw the jet start to climb then heard the pilot of the jet comment about my position to which the air-traffic controller replied, "you have sufficient clear airspace the aircraft is at 1000 ft mid field. " My assumption was the controller moved me to right downwind to give sufficient clearance so that the airbus could pass safely under me.”

Pilot Information (A1)

Certificate:	Airline transport; Commercial; Flight instructor	**Age:**	51,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:**	Yes
Instructor Rating(s):	Airplane multi-engine; Airplane single-engine; Instrument airplane	**Toxicology Performed:**	
Medical Certification:	Class 1 With waivers/limitations	**Last FAA Medical Exam:**	February 17, 2021
Occupational Pilot:	Yes	**Last Flight Review or Equivalent:**	November 30, 2020
Flight Time:	(Estimated) 6454 hours (Total, all aircraft), 6111 hours (Total, this make and model), 2815 hours (Pilot In Command, all aircraft), 252 hours (Last 90 days, all aircraft), 84 hours (Last 30 days, all aircraft), 0 hours (Last 24 hours, all aircraft)		

Co-pilot Information (A1)

Certificate:	Airline transport; Private	**Age:**	37,Male
Airplane Rating(s):	Single-engine land; Multi-engine land	**Seat Occupied:**	Right
Other Aircraft Rating(s):	None	**Restraint Used:**	5-point
Instrument Rating(s):	Airplane	**Second Pilot Present:**	Yes
Instructor Rating(s):	None	**Toxicology Performed:**	
Medical Certification:	Class 1 Without waivers/limitations	**Last FAA Medical Exam:**	August 18, 2020
Occupational Pilot:	Yes	**Last Flight Review or Equivalent:**	November 30, 2020
Flight Time:	(Estimated) 4224 hours (Total, all aircraft), 2270 hours (Total, this make and model), 0 hours (Pilot In Command, all aircraft), 207 hours (Last 90 days, all aircraft), 56 hours (Last 30 days, all aircraft), 3 hours (Last 24 hours, all aircraft)		

Pilot Information (A2)

Certificate:	Private	**Age:**	69,Male
Airplane Rating(s):	Single-engine land; Multi-engine land	**Seat Occupied:**	Left
Other Aircraft Rating(s):	Helicopter	**Restraint Used:**	3-point
Instrument Rating(s):	None	**Second Pilot Present:**	
Instructor Rating(s):	None	**Toxicology Performed:**	
Medical Certification:	Class 3 With waivers/limitations	**Last FAA Medical Exam:**	April 1, 2021
Occupational Pilot:	No	**Last Flight Review or Equivalent:**	April 14, 2021
Flight Time:	2100 hours (Total, all aircraft), 341 hours (Total, this make and model), 2000 hours (Pilot In Command, all aircraft), 11.5 hours (Last 90 days, all aircraft), 11.5 hours (Last 30 days, all aircraft), 2 hours (Last 24 hours, all aircraft)		

Aircraft and Owner/Operator Information (A1)

Aircraft Make:	Airbus	**Registration:**	N306NV
Model/Series:	A319-112	**Aircraft Category:**	Airplane
Year of Manufacture:	2005	**Amateur Built:**	
Airworthiness Certificate:	Transport	**Serial Number:**	2420
Landing Gear Type:	Retractable - Tricycle	**Seats:**	163
Date/Type of Last Inspection:	April 28, 2021 Continuous airworthiness	**Certified Max Gross Wt.:**	154323 lbs
Time Since Last Inspection:		**Engines:**	2 Turbo fan
Airframe Total Time:	46011.3 Hrs as of last inspection	**Engine Manufacturer:**	CFM INTL
ELT:	C126 installed, not activated	**Engine Model/Series:**	CFM56-5B6/P
Registered Owner:	SUNRISE ASSET MANAGEMENT LLC	**Rated Power:**	23500 Lbs thrust
Operator:	Allegiant Air	**Operating Certificate(s) Held:**	Flag carrier (121)
Operator Does Business As:	Allegiant Travel Company	**Operator Designator Code:**	AAY

Aircraft and Owner/Operator Information (A2)

Aircraft Make:	Cessna	**Registration:**	N370SD
Model/Series:	M337B	**Aircraft Category:**	Airplane
Year of Manufacture:	1969	**Amateur Built:**	
Airworthiness Certificate:	Normal	**Serial Number:**	69-7659
Landing Gear Type:	Retractable - Tricycle	**Seats:**	6
Date/Type of Last Inspection:	March 29, 2021	**Certified Max Gross Wt.:**	5400 lbs
Time Since Last Inspection:		**Engines:**	2 Reciprocating
Airframe Total Time:		**Engine Manufacturer:**	CONT MOTOR
ELT:	Installed, not activated	**Engine Model/Series:**	IO-360 C/D
Registered Owner:	On file	**Rated Power:**	210 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:	KPIE,11 ft msl	**Distance from Accident Site:**	1 Nautical Miles
Observation Time:	14:53 Local	**Direction from Accident Site:**	354°
Lowest Cloud Condition:	Scattered / 1500 ft AGL	**Visibility**	10 miles
Lowest Ceiling:	None	**Visibility (RVR):**	
Wind Speed/Gusts:	7 knots / 18 knots	**Turbulence Type Forecast/Actual:**	/
Wind Direction:	170°	**Turbulence Severity Forecast/Actual:**	/
Altimeter Setting:	30.04 inches Hg	**Temperature/Dew Point:**	31°C / 19°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	St Petersburg-Clearwater, FL (A1); St. Petersburg, FL (KSPG) (A2)	**Type of Flight Plan Filed:**	IFR (A1); None (A2)
Destination:	Norfolk, VA (ORF) (A1); St Petersburg-Clearwater, FL (A2)	**Type of Clearance:**	Special VFR (A1); VFR (A2)
Departure Time:		**Type of Airspace:**	Class D (A1); Class D (A2)

Airport Information

Airport:	ST PETE-CLEARWATER INTL PIE	**Runway Surface Type:**	Asphalt;Concrete
Airport Elevation:	10 ft msl	**Runway Surface Condition:**	Dry
Runway Used:	18	**IFR Approach:**	None
Runway Length/Width:	9730 ft / 150 ft	**VFR Approach/Landing:**	Traffic pattern

Wreckage and Impact Information (A1)

Crew Injuries:	6 None	**Aircraft Damage:**	None
Passenger Injuries:	123 None	**Aircraft Fire:**	None
Ground Injuries:	N/A	**Aircraft Explosion:**	None
Total Injuries:	129 None	**Latitude, Longitude:**	27.902228,-82.686946(est)

Wreckage and Impact Information (A2)

Crew Injuries:	1 None	**Aircraft Damage:**	None
Passenger Injuries:		**Aircraft Fire:**	None
Ground Injuries:	N/A	**Aircraft Explosion:**	None
Total Injuries:	1 None	**Latitude, Longitude:**	27.902228,-82.686946(est)

Administrative Information

Investigator In Charge (IIC):	Koschig, Betty
Additional Participating Persons:	Karena Marinas; National Air Traffic Controllers Association Roland Ratliff; FAA
Original Publish Date:	September 22, 2023
Last Revision Date:	
Investigation Class:	Class 3
Note:	The NTSB did not travel to the scene of this incident.
Investigation Docket:	https://data.ntsb.gov/Docket?ProjectID=103049