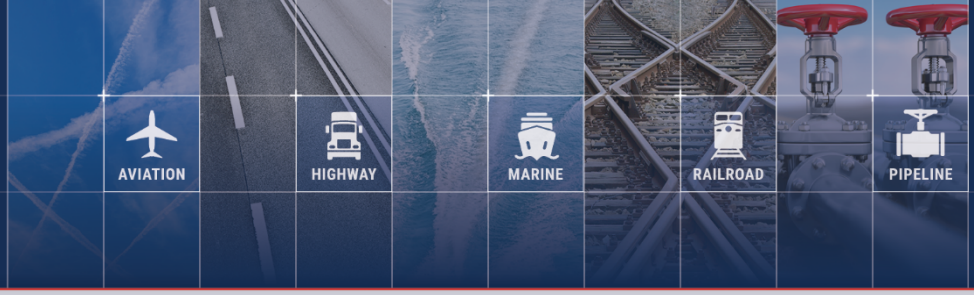

Aviation Investigation Final Report

Location:	Jacksonville, Florida	**Incident Number:**	OPS16IA010
Date & Time:	April 3, 2016, 13:45 UTC	**Registration:**	N57GX (A1); N758PK (A2)
Aircraft:	Mooney M20R (A1); Cessna R172K (A2)	**Aircraft Damage:**	None (A1); None (A2)
Defining Event:	Air traffic event	**Injuries:**	N/A (A1); N/A (A2)
Flight Conducted Under:	Part 91: General aviation - Personal (A1); Part 91: General aviation - Personal (A2)		

Analysis

The loss of separation occurred after the air traffic controller issued N57GX a climb from 5,000 feet to 9,000 feet while N758PK was on an opposite direction heading, level at 8,000 feet. The air traffic controller became aware of the incident after the pilot of N57GX reported that he had received a conflict alert and had taken evasive action to avoid a collision with N785PK.

After N57GX had departed OCF, the air traffic controller instructed the pilot to climb to 5,000 feet, and subsequently issued the pilot a climb to 9,000 feet, which was the pilot's requested altitude. The air traffic controller did not consider the performance of the aircraft, or the proximity of N785PK when he issued the climb instructions to N57GX. The decision by the air traffic controller to climb N57GX without ensuring minimum radar or vertical separation would exist, and be maintained, resulted in the aircraft coming into close proximity to one another. Additionally, the controller did not issue a safety alert when the air traffic control conflict alert activated, requiring the pilot of N57GX to take evasive action to avoid a collision with N758PK. The closest proximity was estimated to be 0.85 nautical miles lateral and 200 feet vertical separation.

Probable Cause and Findings

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

The air traffic controller's decision to issue climb instruction to one aircraft without ensuring the required separation with another could be maintained. Contributing to the incident was the air traffic controller's failure to issue a safety alert in a timely manner.

Findings

Personnel issues (A1)	Incorrect action selection - ATC personnel
Personnel issues (A1)	Incomplete action - ATC personnel
Personnel issues (A2)	Incorrect action selection - ATC personnel
Personnel issues (A2)	Forgotten action/omission - ATC personnel

Factual Information

History of Flight

Enroute-climb to cruise (A1)	Near midair/TCAS alert/loss of separation
Enroute-climb to cruise (A1)	Air traffic event (Defining event)
Enroute-cruise (A2)	Air traffic event
Enroute (A2)	Near midair/TCAS alert/loss of separation

On April 3, 2016, at about 0945 EDT, N57GX a Mooney M20P, executed an evasive maneuver while climbing through 7,500 feet for 9,000 feet in response to a traffic collision avoidance system alert from N758PK, a Cessna C172G, level at 8,000 feet. N57GX turned left and crossed below and in front of N758PK; the closest proximity was estimated to be 0.85 NM and 200 feet. Visual meteorological conditions prevailed and instrument flight plans for both aircraft were filed for the 14 *Code of Federal Regulations* (CFR) Part 91 flights. N57GX originated at the Ocala International Airport-Jim Taylor Field (OCF), Ocala, Florida and was enroute to Page Field Airport (FMY), Fort Myers, Florida. N758PK originated at the Sarasota Bradenton International Airport (SRQ), Sarasota Bradenton, Florida and was enroute to Athens Ben Epps Airport (MLJ), Athens, Georgia. There was no damage to either aircraft, and there were no reported injuries.

History of Flight

At 0935:01, the pilot of N57GX contacted Jacksonville approach control and reported departing OCF, leaving 1,700 feet climbing to 2,000 feet on an instrument flight plan. The JAX air traffic controller transmitted "...is that 57GX?" After the pilot confirmed it was N57GX, the approach controller asked the pilot if he was squawking 7242 [sic]. The pilot responded that he was squawking 7642, and asked "…you want me to change to 7342?" The approach controller instructed the pilot to squawk 7342.

At 0936:48, the pilot of N57GX contacted JAX approach control and advised that he "would like to go back on course and climb to 9,000." The approach controller responded, "Mooney 7GX you are radar contact eight miles west of the Ocala airport, say altitude." The pilot of N57GX replied, "yeah I see that 57GX, we would like to go back on course to go towards Fort Myers." The approach controller replied, "…roger that, ah, cleared direct Lakeland, climb and maintain 5,000." The pilot of N57GX correctly read back the route and altitude clearance, and the approach controller then climbed N57GX to 9,000 feet. The pilot of N57GX correctly read-back the clearance.

At 0939:46, the pilot of N57GX asked the approach controller if he had seen "all of the traffic I had to avoid" referring to the VFR traffic in and around OCF. At 0939:55, the approach controller responded, "…affirmative sir, it was, ah, no factor for you. There is a lot of uh, VFR [visual flight rules] aircraft in the vicinity of the Ocala airport." The pilot responded, "well I would disagree with ya on that one, ah; I had to do evasive maneuvers to avoid a plane that was less than 2 miles out same altitude." The approach controller responded, "…yes sir, ah, we are watching you, just be assured that we are watching you. Sir,

it was not a factor for you, sorry you had all that ah traffic there. You have additional traffic there about 2 to 3 o'clock about a mile same direction, altitude indicates 3,700." The pilot responded he had the traffic on the "fish finder."

At 0946:05 the conflict alert (CA) activated between N57GX and N758PK; an audible alert was emitted and a flashing "CA" was displayed in the radar data block. The alert continued until 0947:05.

At 0947:09, the pilot of N57GX broadcasted "Jacksonville approach." The approach controller responded, "go ahead I am watching you." The pilot of N57GX advised the approach controller, "yeah it looks like you didn't see that other traffic either, almost hit us." The approach controller did not respond.

At 0947:47, the pilot of N57GX transmitted, "did you say you saw the traffic that almost hit us or didn't see it. We had to take evasive action a second time with you (unintelligible)." The approach controller replied, "…we did see it there, he went by at 8,000." The pilot of N57GX asked the approach controller why he was not advised of the other aircraft. The approach controller responded, "…we did see it ah northbound going to M-J, ah M-L-J, we did see it."

At 0948:16, the pilot of N57GX transmitted, "you did see it and you didn't tell me about it, what's going on at JAX center?" The approach controller responded, "it's actually JAX approach." At 0948:22, the pilot of N57GX asked, "what's going on at JAX approach that you didn't advise me, I'm on an IFR flight plan, I thought I was getting separation service. If I didn't have collision avoidance we would have hit two airplanes possibly." The approach controller responded "…I appreciate your ah your patience today, I want you to contact Tampa approach, hopefully you'll get better service there, it's on ah 135.5."

Before changing frequencies, the pilot of N57GX transmitted "you're not paying attention." The approach controller responded that he was paying attention and the pilot responded, "you could have fooled me twice." The approach controller reiterated the Tampa approach control frequency.

There were no further transmissions from N57GX.

Radar Data

Radar data for this report was obtained from the FAA JAX terminal radar approach control (TRACON) and was of good quality. The data was plot playback (.PPB) derived from the Gainesville (GNV) radar sensor as part of the standard automation replacement system (STARS). The system provided a fused radar picture to the controller from radar sites in JAX, GNV, NIP, DAB or CTY. STARS should be operated in fused mode to the extent possible, and was in fused mode on the date of the incident.

Weather Information

The closest weather reporting station was the Villages heliport (19FL), Belleview, FL. The ASOS weather for 1335 UTC was reported as:

KVVG 031335Z AUTO 32007KT 10SM 17/06 A3001 RMK A01

Weather for KVVG at 0935 EDT was reported as wind 320 degrees at 7 knots, visibility 10 statute miles, temperature 17° C, dew point temperature 06° C, altimeter 30.01 inches of mercury.

Federal Aviation Administration Air Traffic Control Procedures

Federal Aviation Administration Joint Order (FAA JO) 7110.65, Air Traffic Control, prescribes air traffic control procedures and phraseology for use by personnel providing air traffic control services. Air traffic control personnel are required to be familiar with the provisions of FAA JO 7110.65 that pertain to operational responsibilities.

Required lateral radar separation when operating the radar system in fused mode is identified in FAA JO 7110.65, Air Traffic Control, Chapter 5 Section 5, paragraph 5-5-4, Radar separation, which states [in part]:

5-5-4. MINIMA

b. TERMINAL. FUSION:

1. Fusion target symbol – 3 miles.

2. When displaying ISR in the data block- 5 miles.

When not utilizing lateral separation, air traffic controllers may utilize timed or vertical separation. FAA JO 7110.65, Air Traffic Control, Chapter 4 Section 5, paragraph 4-5-1, Vertical Separation Minima, addresses vertical separation and states [in part]:

4-5-1. VERTICAL SEPARATION MINIMA

Separate instrument flight rules (IFR) aircraft using the following minima between altitudes:

1. Up to and including FL 410- 1,000 feet.

When an aircraft comes in close proximity to other aircraft or terrain and obstructions, a Safety Alert shall be issued. Federal Aviation Administration Joint Order (FAA JO) 7110.65, Air Traffic Control, addresses Safety Alerts and states [in part]:

2-1-6. SAFETY ALERT

Issue a safety alert to an aircraft if you are aware the aircraft is in a position/altitude that, in your judgment, places it in unsafe proximity to terrain, obstructions, or other aircraft. Once the pilot informs you action is being taken to resolve the situation, you may discontinue the issuance of further alerts. Do not assume that because someone else has responsibility for the aircraft that the unsafe situation has been observed and the safety alert issued; inform the appropriate controller.

Information

Certificate:	**Age:**
Airplane Rating(s):	**Seat Occupied:**
Other Aircraft Rating(s):	**Restraint Used:**
Instrument Rating(s):	**Second Pilot Present:**
Instructor Rating(s):	**Toxicology Performed:**
Medical Certification:	**Last FAA Medical Exam:**
Occupational Pilot:	**Last Flight Review or Equivalent:**
Flight Time:	

Aircraft and Owner/Operator Information (A1)

Aircraft Make:	Mooney	**Registration:**	N57GX
Model/Series:	M20R NO SERIES	**Aircraft Category:**	Airplane
Year of Manufacture:	2005	**Amateur Built:**	
Airworthiness Certificate:	Normal	**Serial Number:**	29-0357
Landing Gear Type:	Tricycle	**Seats:**	
Date/Type of Last Inspection:	Unknown	**Certified Max Gross Wt.:**	3369 lbs
Time Since Last Inspection:		**Engines:**	1 Reciprocating
Airframe Total Time:		**Engine Manufacturer:**	CONT MOTOR
ELT:		**Engine Model/Series:**	IO-550 SERIES
Registered Owner:	On file	**Rated Power:**	0 Horsepower
Operator:	On file	**Operating Certificate(s) Held:**	None

Aircraft and Owner/Operator Information (A2)

Aircraft Make:	Cessna	**Registration:**	N758PK
Model/Series:	R172K K	**Aircraft Category:**	Airplane
Year of Manufacture:	1979	**Amateur Built:**	
Airworthiness Certificate:	Normal	**Serial Number:**	R1723250
Landing Gear Type:	Tricycle	**Seats:**	4
Date/Type of Last Inspection:	Unknown	**Certified Max Gross Wt.:**	
Time Since Last Inspection:		**Engines:**	1 Reciprocating
Airframe Total Time:		**Engine Manufacturer:**	CONT MOTOR
ELT:		**Engine Model/Series:**	IO-360 SER
Registered Owner:	On file	**Rated Power:**	0 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:		**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:**	/ None
Wind Direction:		**Turbulence Severity Forecast/Actual:**	/ N/A
Altimeter Setting:		**Temperature/Dew Point:**	
Precipitation and Obscuration:			
Departure Point:	OCALA, FL (OCF) (A1); SARASOTA, FL (SRQ) (A2)	**Type of Flight Plan Filed:**	IFR (A1); IFR (A2)
Destination:	FORT MYERS, FL (FMY) (A1); MILLEDGEVILLE, GA (MLJ) (A2)	**Type of Clearance:**	IFR (A1); IFR (A2)
Departure Time:		**Type of Airspace:**	Air traffic control;Class E (A1); Air traffic control;Class E (A2)

Wreckage and Impact Information (A1)

Crew Injuries:	N/A	**Aircraft Damage:**	None
Passenger Injuries:		**Aircraft Fire:**	None
Ground Injuries:	N/A	**Aircraft Explosion:**	None
Total Injuries:	N/A	**Latitude, Longitude:**	28.759166,-82.260276

Wreckage and Impact Information (A2)

Crew Injuries:	N/A	**Aircraft Damage:**	None
Passenger Injuries:		**Aircraft Fire:**	None
Ground Injuries:	N/A	**Aircraft Explosion:**	None
Total Injuries:	N/A	**Latitude, Longitude:**	28.759166,-82.260276

Administrative Information

Investigator In Charge (IIC):	Olvis, Charles
Additional Participating Persons:	Scott Proudfoot; Federal Aviation Administration; Washington, DC Adam Rhodes; National Air Traffic Controllers Association; Washington, DC
Original Publish Date:	February 2, 2021
Last Revision Date:	
Investigation Class:	Class 3
Note:	The NTSB traveled to the scene of this incident.
Investigation Docket:	https://data.ntsb.gov/Docket?ProjectID=93024