ACN: 2263914 *(1 of 10)*

Time / Day

Date : 202507
Local Time Of Day : 1201-1800

Place

Locale Reference.ATC Facility : ZJX.ARTCC
State Reference : FL
Relative Position.Distance.Nautical Miles : 35
Altitude.MSL.Single Value : 41000

Environment

Weather Elements / Visibility : Turbulence
Weather Elements / Visibility : Thunderstorm

Aircraft

Reference : X
ATC / Advisory.Center : ZJX
Aircraft Operator : Corporate
Make Model Name : Small Transport, Low Wing, 2 Turbojet Eng
Crew Size.Number Of Crew : 2
Operating Under FAR Part : Part 91
Flight Plan : IFR
Mission : Passenger
Flight Phase : Cruise
Route In Use : Direct
Route In Use : Vectors
Airspace.Class A : ZJX

Person

Location Of Person.Aircraft : X
Location In Aircraft : Flight Deck
Reporter Organization : Corporate
Function.Flight Crew : Pilot Flying
Function.Flight Crew : Captain
Qualification.Flight Crew : Instrument
Qualification.Flight Crew : Flight Instructor
Qualification.Flight Crew : Multiengine
Experience.Flight Crew.Total : 34000
Experience.Flight Crew.Last 90 Days : 125
Experience.Flight Crew.Type : 10000
ASRS Report Number.Accession Number : 2263914
Human Factors : Workload
Human Factors : Situational Awareness

Events

Anomaly.Deviation - Altitude : Excursion From Assigned Altitude
Anomaly.Deviation / Discrepancy - Procedural : Clearance
Anomaly.Inflight Event / Encounter : Weather / Turbulence
Anomaly.Inflight Event / Encounter : Loss Of Aircraft Control
Detector.Person : Flight Crew

When Detected : In-flight
Result.Flight Crew : Returned To Clearance
Result.Flight Crew : Regained Aircraft Control
Result.Flight Crew : Became Reoriented
Result.Air Traffic Control : Provided Assistance

Assessments

Contributing Factors / Situations : Weather
Primary Problem : Weather

Narrative: 1

On IFR flight from ZZZ to GYH at 41,000 Jacksonville center cleared direct GYH ATC said cleared to deviate left or right to avoid build ups. Turned left direct AMG as instructed by ATC looked like a good route nothing on radar in clouds. Light then moderate turbulence a good bump autopilot kicked off Aircraft X lost and gained 700 + or - then regained control autopilot back on continued to destination. Possible solution could have been deviated right to SSI and stayed in clear of rapidly developing storms? Or climbed to 43,000 or 45,000? That is hindsight? With over 6,000+ hours of weather flying our decision was good ATC was trying to help numerous other aircraft with deviation. If this situation in the future I am confronted with I will deviate sooner and allow much more space to circumnavigate rapidly developing storms.

Synopsis

A Corporate jet pilot reported moderate turbulence caused a temporary loss of control.

ACN: 2235748 *(2 of 10)*

Time / Day

Date : 202504
Local Time Of Day : 1201-1800

Place

Locale Reference.ATC Facility : VPS.TRACON
State Reference : FL
Relative Position.Angle.Radial : 090
Relative Position.Distance.Nautical Miles : 15
Altitude.MSL.Single Value : 4000

Environment

Flight Conditions : IMC
Weather Elements / Visibility : Fog
Weather Elements / Visibility.Visibility : 0
Light : Daylight
Ceiling.Single Value : 3000

Aircraft : 1

Reference : X
ATC / Advisory.TRACON : VPS
Aircraft Operator : FBO
Make Model Name : Small Aircraft, Low Wing, 1 Eng, Fixed Gear
Crew Size.Number Of Crew : 1
Operating Under FAR Part : Part 91
Flight Plan : IFR
Mission : Training
Flight Phase : Cruise
Route In Use.Airway : V198
Airspace.Class E : CEW

Aircraft : 2

Reference : Y
ATC / Advisory.TRACON : VPS
Aircraft Operator : Corporate
Make Model Name : Small Aircraft, Low Wing, 2 Eng, Retractable Gear
Crew Size.Number Of Crew : 1
Operating Under FAR Part : Part 91
Flight Plan : None
Mission : Training
Flight Phase : Cruise
Route In Use : None
Airspace.Class E : CEW

Person

Location Of Person.Aircraft : X
Location In Aircraft : Flight Deck
Reporter Organization : FBO
Function.Flight Crew : Pilot Flying
Function.Flight Crew : Instructor
Qualification.Flight Crew : Instrument
Qualification.Flight Crew : Commercial
Qualification.Flight Crew : Flight Instructor
Experience.Flight Crew.Total : 1114
Experience.Flight Crew.Last 90 Days : 168
Experience.Flight Crew.Type : 872
ASRS Report Number.Accession Number : 2235748
Human Factors : Communication Breakdown
Human Factors : Situational Awareness
Human Factors : Training / Qualification
Human Factors : Human-Machine Interface
Communication Breakdown.Party1 : Flight Crew
Communication Breakdown.Party2 : ATC

Events

Anomaly.ATC Issue : All Types
Anomaly.Conflict : NMAC
Anomaly.Deviation - Altitude : Excursion From Assigned Altitude
Anomaly.Deviation / Discrepancy - Procedural : Published Material / Policy
Anomaly.Deviation / Discrepancy - Procedural : Clearance
Anomaly.Inflight Event / Encounter : Weather / Turbulence
Detector.Automation : Aircraft Other Automation
Detector.Person : Flight Crew
Miss Distance.Horizontal : 0
Miss Distance.Vertical : 500
When Detected : In-flight
Result.Flight Crew : Took Evasive Action

Assessments

Contributing Factors / Situations : Airspace Structure
Contributing Factors / Situations : Human Factors
Contributing Factors / Situations : Software and Automation
Contributing Factors / Situations : Procedure
Primary Problem : Human Factors

Narrative: 1

Flying on an IFR flight plan in IMC westbound along V198 while instructing an instrument student in Aircraft X we were returning to PNS when I noticed the chance of collision via ADSB without immediate altitude correction. We were in IMC when I descended to avoid collision and notified ATC of my altitude deviation before ATC reached out for the traffic call. I descended to 3000 ft from 4000 ft and barely made visual of Aircraft Y through the clouds but the proximity was too close if I hadn't evaded. I asked ATC if they were on an IFR flight plan and Eglin Approach said, "no and they are also squawking VFR". I told Eglin they're not VFR and they caused a near miss. After I saw proper distance from Aircraft Y I informed ATC of my climb back to 4000.

Synopsis

General aviation instructor reported a near miss with another aircraft while operating IFR on a training flight during cruise in instrument conditions. The instructor descended from the assigned altitude to avoid the other aircraft.

ACN: 2181063 *(3 of 10)*

Time / Day

Date : 202410

Place

Locale Reference.ATC Facility : DAB.TRACON
State Reference : FL
Altitude.MSL.Single Value : 1200

Environment

Weather Elements / Visibility : Rain
Weather Elements / Visibility.Visibility : 10
Ceiling.Single Value : 3500

Aircraft : 1

Reference : X
ATC / Advisory.TRACON : DAB
Make Model Name : Small Aircraft, Low Wing, 1 Eng, Fixed Gear
Crew Size.Number Of Crew : 1
Operating Under FAR Part : Part 91
Flight Plan : VFR
Mission : Personal
Flight Phase : Initial Approach
Route In Use : Direct
Airspace.Class C : DAB

Aircraft : 2

Reference : Y
ATC / Advisory.TRACON : DAB
Make Model Name : Small Aircraft, Low Wing, 1 Eng, Retractable Gear
Operating Under FAR Part : Part 91
Flight Phase : Initial Approach
Airspace.Class C : DAB

Person

Location Of Person.Aircraft : X
Location In Aircraft : Flight Deck
Function.Flight Crew : Pilot Flying
Function.Flight Crew : Single Pilot
Experience.Flight Crew.Total : 370
Experience.Flight Crew.Last 90 Days : 80
Experience.Flight Crew.Type : 200
ASRS Report Number.Accession Number : 2181063
Human Factors : Situational Awareness

Events

Anomaly.Conflict : NMAC
Anomaly.Inflight Event / Encounter : Weather / Turbulence
Detector.Automation : Aircraft TA
Detector.Person : Flight Crew
When Detected : In-flight
Result.Flight Crew : Took Evasive Action

Assessments

Contributing Factors / Situations : Human Factors
Contributing Factors / Situations : Weather
Primary Problem : Ambiguous

Narrative: 1

Was approaching the airport at 1200 feet and forced to climb a few hundred feet to avoid another aircraft on the approach, as well as a cell of rain. Got 2 caution alerts for traffic and one master.

Synopsis

Pilot reported a NMAC with another light aircraft while on approach to a nearby airport.

ACN: 2166567 *(4 of 10)*

Time / Day

Date : 202409
Local Time Of Day : 0601-1200

Place

Locale Reference.ATC Facility : MCO.TRACON
State Reference : FL
Altitude.MSL.Single Value : 3000

Environment

Weather Elements / Visibility : Rain
Weather Elements / Visibility : Turbulence
Ceiling.Single Value : 2500

Aircraft

Reference : X
ATC / Advisory.TRACON : MCO
Aircraft Operator : FBO
Make Model Name : Small Aircraft, Low Wing, 1 Eng, Fixed Gear
Crew Size.Number Of Crew : 1
Operating Under FAR Part : Part 91
Flight Plan : IFR
Mission : Training
Flight Phase : Cruise
Route In Use : Direct
Airspace.Class E : MCO

Person

Location Of Person.Aircraft : X
Location In Aircraft : Flight Deck
Reporter Organization : Personal
Function.Flight Crew : Single Pilot
Function.Flight Crew : Pilot Flying
Qualification.Flight Crew : Instrument
Qualification.Flight Crew : Private
Experience.Flight Crew.Total : 140.5
Experience.Flight Crew.Last 90 Days : 30
Experience.Flight Crew.Type : 65
ASRS Report Number.Accession Number : 2166567
Human Factors : Workload
Human Factors : Situational Awareness

Events

Anomaly.ATC Issue : All Types
Anomaly.Deviation - Altitude : Excursion From Assigned Altitude
Anomaly.Deviation - Speed : All Types
Anomaly.Deviation / Discrepancy - Procedural : Published Material / Policy
Anomaly.Inflight Event / Encounter : Weather / Turbulence
Anomaly.Inflight Event / Encounter : Loss Of Aircraft Control
Detector.Person : Flight Crew
When Detected : In-flight
Result.Flight Crew : Requested ATC Assistance / Clarification
Result.Flight Crew : Regained Aircraft Control

Assessments

Contributing Factors / Situations : Human Factors
Contributing Factors / Situations : Weather
Primary Problem : Weather

Narrative: 1

I was flying a small aircraft for my first IFR solo cross country. My route was ZZZ1-JAX-ZZZ2 After departing JAX flying as filed at 6000 ft, I was asked to descend down to 4,000. I noticed I would be flying straight into the clouds - which by the looks of them seemed fine. I am an instrument rated pilot and current for IFR flying. I advised Orlando ATC [of] my request to deviate from buildups - they agreed. I deviated and then I requested an altitude change to 3000 to avoid the large build ups. I requested further deviations for weather avoidance several times but I was denied. I found myself in a rain shower which pushed my plane down due to the downdrafts. I was rapidly descending at this point. My airspeed was in the yellow and the aircraft was getting harder to control. While trying to maintain control over the aircraft, I advised ATC my concerns for the safety of flight, requesting an altitude change, I was denied again and advised to fly at 3,000 ft which I flew. I believe if i requested to stay at 6000 when the controllers gave me 4000 initially instead of descending down into the worse weather, I might not have broke[n] aircraft separation.

Synopsis

GA pilot reported temporary loss of aircraft control when they encountered a downdraft during cruise.

ACN: 2137237 *(5 of 10)*

Time / Day

Date : 202406
Local Time Of Day : 0601-1200

Place

Locale Reference.ATC Facility : ZJX.ARTCC
State Reference : FL
Altitude.MSL.Single Value : 42975

Environment

Flight Conditions : VMC
Weather Elements / Visibility.Visibility : 100
Light : Daylight
Ceiling.Single Value : 30000

Aircraft : 1

Reference : X
ATC / Advisory.Center : ZJX
Aircraft Operator : Personal
Make Model Name : Light Transport, Low Wing, 2 Turbojet Eng
Crew Size.Number Of Crew : 2
Operating Under FAR Part : Part 91
Flight Plan : IFR
Mission : Personal
Flight Phase : Climb
Route In Use : Direct
Airspace.Class A : ZJX

Aircraft : 2

Reference : Y
ATC / Advisory.Center : ZJX
Make Model Name : Any Unknown or Unlisted Aircraft Manufacturer
Flight Plan : IFR
Flight Phase : Cruise
Airspace.Class A : ZJX

Person

Location Of Person.Aircraft : X
Location In Aircraft : Flight Deck
Reporter Organization : Corporate
Function.Flight Crew : Pilot Flying
Function.Flight Crew : Captain
Qualification.Flight Crew : Commercial
Qualification.Flight Crew : Multiengine
Qualification.Flight Crew : Instrument
Experience.Flight Crew.Total : 3000
Experience.Flight Crew.Last 90 Days : 150
Experience.Flight Crew.Type : 50
ASRS Report Number.Accession Number : 2137237
Human Factors : Distraction
Human Factors : Situational Awareness
Human Factors : Time Pressure
Human Factors : Workload
Human Factors : Confusion

Events

Anomaly.ATC Issue : All Types
Anomaly.Conflict : Airborne Conflict
Anomaly.Deviation - Altitude : Undershoot
Anomaly.Deviation / Discrepancy - Procedural : Published Material / Policy
Anomaly.Deviation / Discrepancy - Procedural : Clearance
Anomaly.Inflight Event / Encounter : Weather / Turbulence
Anomaly.Inflight Event / Encounter : Loss Of Aircraft Control
Detector.Automation : Aircraft RA
Detector.Person : Air Traffic Control
Detector.Person : Flight Crew
Miss Distance.Horizontal : 12000
Miss Distance.Vertical : 1000

Result.Flight Crew : Requested ATC Assistance / Clarification
Result.Air Traffic Control : Provided Assistance

Assessments

Contributing Factors / Situations : Environment - Non Weather Related
Contributing Factors / Situations : Human Factors
Contributing Factors / Situations : Procedure
Contributing Factors / Situations : Weather
Primary Problem : Weather

Narrative: 1

As the PIC of Aircraft X operating from ZZZ to MBPV on this day, in an effort to save fuel whilst assessing metrological conditions my Second in Command (SIC) and I made the call to request a cruise altitude of FL430. While in the climb and approaching FL429, we started to notice that the ISA drop was not what was expected based off of interpolation and realized very quickly that the aircraft would be very sluggish to perform at the altitude requested. Soon after that realization the aircraft began to buffet (no stick shaker or pusher was presented) however, the quick onset of the buffet began to make the autopilot fluctuate in an effort to maintain the altitude entered. I immediately asked for a lower altitude explaining that we were unable to maintain the altitude to which a frequency change was given to us in response. Still seeing the trend start to worsen and the buffets become larger I took it upon myself as the PIC to prevent a stall scenario. Disconnecting the autopilot to start a slow descent to regain the airspeed and was met with a faster than expected descent rate. Before I was able to rectify the drop in altitude, we were given 50 degrees right turn by the Center Controller and I saw my lowest point to be 41700ft which triggered a Level Off RA from My TCAS. I had the oncoming aircraft insight under the VMC condition and I a rectified my altitude loss climbing up to 42000 feet where I could maintain the aircraft free of any stall condition for the time being. There were no injuried aboard.

Synopsis

A corporate jet Captain reported the aircraft was unable to reach its assigned altitude and began a descent into a confliction with another aircraft below it.

ACN: 2020873 *(6 of 10)*

Time / Day

Date : 202307
Local Time Of Day : 1201-1800

Place

Locale Reference.ATC Facility : ZJX.ARTCC
State Reference : FL
Altitude.MSL.Single Value : 28000

Environment

Flight Conditions : IMC
Weather Elements / Visibility : Rain
Weather Elements / Visibility : Thunderstorm
Weather Elements / Visibility : Turbulence
Weather Elements / Visibility : Windshear
Light : Daylight

Aircraft

Reference : X
ATC / Advisory.Center : ZJX
Aircraft Operator : Corporate
Make Model Name : Small Aircraft
Crew Size.Number Of Crew : 1
Operating Under FAR Part : Part 91
Flight Plan : IFR
Mission : Personal
Flight Phase : Cruise
Route In Use : Direct
Airspace.Class A : ZJX

Person

Location Of Person.Aircraft : X
Reporter Organization : Corporate
Function.Flight Crew : Pilot Flying
Function.Flight Crew : Single Pilot
Qualification.Flight Crew : Instrument

Qualification.Flight Crew : Multiengine
Qualification.Flight Crew : Commercial
Experience.Flight Crew.Total : 1818
Experience.Flight Crew.Last 90 Days : 102
Experience.Flight Crew.Type : 566
ASRS Report Number.Accession Number : 2020873
Human Factors : Communication Breakdown
Human Factors : Workload
Human Factors : Situational Awareness
Communication Breakdown.Party1 : Flight Crew
Communication Breakdown.Party2 : ATC

Events

Anomaly.Deviation - Altitude : Excursion From Assigned Altitude
Anomaly.Deviation - Track / Heading : All Types
Anomaly.Deviation / Discrepancy - Procedural : Clearance
Anomaly.Inflight Event / Encounter : Weather / Turbulence
Anomaly.Inflight Event / Encounter : Loss Of Aircraft Control
Detector.Person : Flight Crew
When Detected : In-flight
Result.Flight Crew : Took Evasive Action
Result.Air Traffic Control : Provided Assistance

Assessments

Contributing Factors / Situations : Human Factors
Contributing Factors / Situations : Procedure
Contributing Factors / Situations : Weather
Primary Problem : Weather

Narrative: 1

While flying from ZZZ to TYS, Jax Center rerouted me to NRAVN Intersection then to CABLO to navigate through a line of thunderstorms. This was the suggested route by one of the Jax Center controllers. Other aircraft that were higher than us were making it through, despite another hole we were trying to go through that closed up North of TERES Intersection. We were at FL280 and once entering IMC we encountered an updraft the climbed us to 28,125 MSL then instantly a downdraft descended us to 26,975 MSL over the course of approximately one minute. Once I encountered the updraft and downdraft we also encountered severe turbulence and I immediately made a 180 turn Southbound to heading 180 while trying to maintain altitude at the time of FL270. The controller at Jax Center was extremely busy and controlling the airplane was my number one priority. Once established on a 180 heading and having leveled out at FL270, I was waiting for an opportunity to key the mic and let the controller know what I encountered. However, before I could do that the controller asked me what I was doing and what I had encountered. I explained to him that I had just experienced an updraft, downdraft, severe turbulence, and severe precipitation and needed to get out of the situation. He told me to fly heading 180, and gave me a block altitude from FL270 to FL280 upon my request. I climbed back up to FL280 on a 180 heading and quickly exited the IMC. Once stable again in VMC conditions, the controller asked if we had any aircraft damage or injuries which I responded 'negative' to both. He then asked our intentions and I said I would like to fly heading 270 and make a North turn over Pensacola, FL to then head NE to East of Montgomery, AL and then a turn to the North to Knoxville. He granted this permission and did a great job assisting us. The rest of the flight was uneventful. But I wanted to report this given the bust in altitude and heading due to severe turbulence and precipitation. Given the weather briefing I received I expected the thunderstorms to start dissipating upon my arrival to the Panhandle of Florida but instead they intensified. To prevent the problem next time I will be much more cautious of flying in the vicinity of thunderstorms and definitively find a better course than in the vicinity of thunderstorms despite other aircraft ahead of me making it through.

Synopsis

General aviation pilot reported inadvertently entering a thunderstorm while in contact with ATC and experienced severe turbulence and precipitation. The pilot turned the aircraft around and exited the adverse weather. There were no injuries or aircraft damage.

ACN: 1746532 *(7 of 10)*

Time / Day

Date : 202006
Local Time Of Day : 1801-2400

Place

Locale Reference.ATC Facility : ZMA.ARTCC
State Reference : FL
Altitude.MSL.Single Value : 19000

Environment

Flight Conditions : Marginal
Weather Elements / Visibility : Turbulence
Weather Elements / Visibility : Thunderstorm

Aircraft

Reference : X
ATC / Advisory.Center : ZMA
Aircraft Operator : Corporate
Make Model Name : Medium Transport
Crew Size.Number Of Crew : 2
Operating Under FAR Part : Part 91
Flight Plan : IFR
Mission : Passenger
Flight Phase : Cruise
Airspace.Class A : ZMA

Person

Reference : 1
Location Of Person.Facility : ZMA.ARTCC
Reporter Organization : Government
Function.Air Traffic Control : Enroute
Qualification.Air Traffic Control : Developmental
ASRS Report Number.Accession Number : 1746532
Human Factors : Workload
Human Factors : Situational Awareness

Events

Anomaly.ATC Issue : All Types
Anomaly.Flight Deck / Cabin / Aircraft Event : Illness / Injury
Anomaly.Inflight Event / Encounter : Weather / Turbulence
Detector.Person : Air Traffic Control
When Detected : In-flight
Result.General : Physical Injury / Incapacitation

Assessments

Contributing Factors / Situations : Company Policy
Contributing Factors / Situations : Weather
Primary Problem : Weather

Narrative: 1

At the start of the shift, convective weather was rapidly forming moving slowly north and east near where the incident occurred. Cells were intensifying rapidly due to daytime heating and resulted in many pop-up cells that were causing deviations within the sector. At the time of the incident, we were running both departures from the ZZZ area and arrivals into the ZZZ area through the same 20 to 25 mile gap where weather was least impacting the aircraft. All overflights were also transiting through the same area, adding to the complexity.

Aircraft X, entered my airspace at 21,000 feet and was assigned a heading from the previous sector to avoid a cell that was building in his vicinity. I issued a routing which at the time was south and west of the precipitation that was depicted on my scope and that I knew was clear based on pilot reports that I had solicited. Weather was issued to the aircraft as well as left and right deviations as necessary. He was issued a descent to 19,000 feet, pointed out to another sector, and was handed off with no issues in my airspace. Upon entering the next Controller's airspace, the pilot reported that he had hit severe turbulence, gashed his head open and was bleeding. The pilot advised ATC and landed safely.

The complexity of having to essentially "play chicken" with arrivals and departures added immensely to the complexity of the sector. Earlier in the session, I mentioned to the TMU (Traffic Management Unit) Supervisor who came into the area that we should consider closing the arrival, but that happened too late. About 10 to 15 minutes prior to this event occurring, we finally closed the arrival down but allowed three aircraft to continue on the arrival, which jammed up the already small lane that I had to work with.

This weather had been building throughout the day, and the fact that it took so long to move planes away from the affected arrival is a constant issue that we have in this facility. This sector is one of the smallest in the facility, and arguably one of the most complex, so adding in weather and unusual operations increases complexity immensely. We generally know when the weather is going to be there and how it's going to affect our operations, so steps should be preemptively taken to reroute these aircraft into better weather and not have to deal with the potential for having these incidents occur.

Synopsis

A Center Controller reported a pilot reported severe turbulence that caused an injury.

ACN: 1746530 *(8 of 10)*

Time / Day

Date : 202006
Local Time Of Day : 1801-2400

Place

Locale Reference.ATC Facility : F11.TRACON
State Reference : FL
Altitude.MSL.Single Value : 3000

Aircraft : 1

Reference : X
ATC / Advisory.TRACON : F11
Aircraft Operator : FBO
Make Model Name : Small Aircraft
Crew Size.Number Of Crew : 1
Operating Under FAR Part : Part 91
Flight Plan : IFR
Mission : Training
Flight Phase : Cruise
Route In Use : Vectors
Airspace.Class C : SFB

Aircraft : 2

Reference : Y
ATC / Advisory.TRACON : F11
Aircraft Operator : FBO
Make Model Name : Small Aircraft
Crew Size.Number Of Crew : 1
Operating Under FAR Part : Part 91
Flight Plan : IFR
Flight Phase : Cruise
Route In Use : Vectors
Airspace.Class C : SFB

Person

Reference : 1
Location Of Person.Facility : F11.TRACON
Reporter Organization : Government
Function.Air Traffic Control : Departure
Function.Air Traffic Control : Approach
Qualification.Air Traffic Control : Fully Certified
Experience.Air Traffic Control.Time Certified In Pos 1 (yrs) : 1
ASRS Report Number.Accession Number : 1746530
Human Factors : Confusion
Human Factors : Situational Awareness
Human Factors : Workload
Human Factors : Distraction

Events

Anomaly.ATC Issue : All Types
Anomaly.Conflict : Airborne Conflict
Anomaly.Deviation / Discrepancy - Procedural : Published Material / Policy
Anomaly.Inflight Event / Encounter : Weather / Turbulence
Detector.Person : Air Traffic Control
When Detected : In-flight
Result.General : None Reported / Taken

Assessments

Contributing Factors / Situations : Human Factors
Contributing Factors / Situations : Airspace Structure
Contributing Factors / Situations : Staffing
Contributing Factors / Situations : Procedure
Primary Problem : Staffing

Narrative: 1

I was working mostly student pilots on practice approaches and practice holding. The weather was building off the departure end of SFB departure end of the 9L & 9R. Aircraft X came from Sector K or Sector D and should have come over at 040 as per the LOA, but came over at 030. I did notice that Aircraft X was not at the correct altitude, I knew it might be an issue, but I didn't feel a sense of urgency to climb the flight to 040 and had other things going on.

The majority of my attention was focused on the west side of SFB. Arrivals for ORL were entering my airspace from the north and I was flowing them southwest over the SFB final and to the D sector, which is responsible for working them into ORL. I identified Aircraft Y climbing off of SFB and turned the aircraft north and away from the precipitation which was building to the east. When I issued the 360 heading, I did not evaluate the proximity to Aircraft X.

Frankly, I had been working at a high level for a long period, but was waiting for the traffic to die down. More and more IFR releases were flashing from SFB and I was definitely getting the feeling of reaching the edge of my skill level. I did ask for the sector to be split, but by that time I had already had an error.

I was under the impression that the flight schools would not be operating at full capacity because of the Coronavirus epidemic, but they were out in full force. I should have asked for help sooner.

I should have asked for the sector to be split about 30 minutes sooner. Once the sector was split, traffic was easily manageable. Even in times of normal staffing, I feel there are never enough controllers to split sectors without running long position times.

Synopsis

F11 TRACON Controller reported a conflict after an aircraft came over at the incorrect altitude.

ACN: 1740410 *(9 of 10)*

Time / Day

Date : 202004
Local Time Of Day : 1201-1800

Place

Locale Reference.ATC Facility : DAB.TRACON
State Reference : FL
Relative Position.Angle.Radial : 355
Relative Position.Distance.Nautical Miles : 28
Altitude.MSL.Single Value : 5000

Environment

Flight Conditions : IMC
Weather Elements / Visibility : Rain
Weather Elements / Visibility : Turbulence
Weather Elements / Visibility : Windshear
Light : Daylight
Ceiling.Single Value : 3000

Aircraft

Reference : X
ATC / Advisory.TRACON : DAB
Aircraft Operator : Personal
Make Model Name : Skyhawk 172/Cutlass 172
Operating Under FAR Part : Part 91
Flight Plan : IFR
Mission : Personal
Flight Phase : Cruise
Route In Use : Direct
Airspace.Class E : DAB

Person

Reference : 1
Location Of Person.Aircraft : X
Location In Aircraft : Flight Deck
Reporter Organization : Personal
Function.Flight Crew : Single Pilot
Function.Flight Crew : Pilot Flying
Qualification.Flight Crew : Commercial
Qualification.Flight Crew : Instrument
Experience.Flight Crew.Total : 228

Experience.Flight Crew.Last 90 Days : 64
Experience.Flight Crew.Type : 228
ASRS Report Number.Accession Number : 1740410
Human Factors : Communication Breakdown
Human Factors : Distraction
Human Factors : Situational Awareness
Human Factors : Workload
Human Factors : Confusion
Communication Breakdown.Party1 : Flight Crew
Communication Breakdown.Party2 : ATC

Events

Anomaly.ATC Issue : All Types
Anomaly.Deviation - Altitude : Excursion From Assigned Altitude
Anomaly.Inflight Event / Encounter : Weather / Turbulence
Anomaly.Inflight Event / Encounter : Loss Of Aircraft Control
Detector.Person : Flight Crew
Miss Distance.Vertical : 800
When Detected : In-flight
Result.Flight Crew : Requested ATC Assistance / Clarification
Result.Flight Crew : Regained Aircraft Control
Result.Flight Crew : Became Reoriented

Assessments

Contributing Factors / Situations : Human Factors
Contributing Factors / Situations : Procedure
Contributing Factors / Situations : Weather
Primary Problem : Weather

Narrative: 1

I was flying along in IMC at 5000 ft. I entered a cloud and it immediately started to rain and I started to experience choppy air that started to bounce us around a little bit. A few seconds later I noted that my VSI started to indicate a 1500 ft. per minute descent. The plane started to veer to the right and the airspeed indicator went from 120 mph to over 140 mph with no input from myself. I started to feel that the airplane was falling out of the sky. Since I was in IMC I began to say to myself trust your instruments because my body was feeling something was very wrong and I started to repeat that phrase "trust your instruments" about 7 or 8 times. I got the plane back to level flight according to my attitude indicator and turn and slip indicator but the plane was showing a 1500 ft. per minute descent and while I was holding the plane straight and level it then went to a 1500 ft. per minute climb. My airspeed went back to normal at 120 mph but the vertical speed indicator then went from a 1500 climb to a 1500 ft. descent.

At that point ATC called and advised me to check my altitude looking at my altimeter from the cockpit footage it shows that I had lost 300 ft. in a matter of a few moments. When ATC called I advised them that "this cloud has me in a spin can I go lower and have 3000 ft." They stated negative due to traffic and that I was IFR and I needed to maintain 5000 all while fighting the plane to stay straight and level. I was looking at my instruments and the plane was beginning to lose more altitude. ATC advised that I needed to maintain 5000.

They then advised that I can't dodge the clouds I need to stay at 5000 ft. I was still fighting to recover the plane. I was just trying to fly the plane and wasn't really focusing on what to say to ATC and I should have stated that I was unable to maintain and that I was in a downdraft but in the moment I had no idea what was happening.

When ATC advised for me to copy down a number I knew that something had really happened that was wrong and that I was going to be in trouble because I was unable to control the plane in such harsh conditions. Once we landed in ZZZ I called the ATC and gave them my pilot credentials and my side of the situation. He advised that if I am experiencing any issues I should have been more vocal but I was in a state of just aviate [so] I could [not] think about communications correctly. After the flight my passenger told me that the plane felt like it was falling out the sky backwards and that it was the wildest thing he has felt in his 26 years of flying. After the flight we reviewed the [video] footage from inside the plane and ATC audio that was captured by the [video] and we saw the telltale signs of a severe downdrafts or a microburst.

Synopsis

C172 pilot reported loss of control while in up and downdrafts flying through clouds.

ACN: 1687871 *(10 of 10)*

Time / Day

Date : 201909
Local Time Of Day : 1201-1800

Place

Locale Reference.ATC Facility : MIA.TRACON
State Reference : FL
Relative Position.Angle.Radial : 000
Relative Position.Distance.Nautical Miles : 5
Altitude.MSL.Single Value : 3000

Environment

Flight Conditions : Marginal
Weather Elements / Visibility : Cloudy
Weather Elements / Visibility : Turbulence
Weather Elements / Visibility.Visibility : 10
Light : Daylight
Ceiling.Single Value : 2000

Aircraft

Reference : X
ATC / Advisory.TRACON : MIA
Aircraft Operator : Personal
Make Model Name : PA-32 Cherokee Six/Lance/Saratoga/6X
Crew Size.Number Of Crew : 1
Operating Under FAR Part : Part 91
Flight Plan : IFR
Mission : Personal
Flight Phase : Initial Climb
Route In Use : Vectors
Airspace.Class E : ZMA

Person

Reference : 1
Location Of Person.Aircraft : X
Location In Aircraft : Flight Deck
Reporter Organization : Personal
Function.Flight Crew : Single Pilot
Function.Flight Crew : Pilot Flying
Qualification.Flight Crew : Commercial
Qualification.Flight Crew : Multiengine
Experience.Flight Crew.Total : 475
Experience.Flight Crew.Last 90 Days : 82
Experience.Flight Crew.Type : 142
ASRS Report Number.Accession Number : 1687871
Human Factors : Confusion
Human Factors : Workload
Human Factors : Communication Breakdown
Communication Breakdown.Party1 : Flight Crew
Communication Breakdown.Party2 : ATC

Events

Anomaly.ATC Issue : All Types
Anomaly.Inflight Event / Encounter : Weather / Turbulence
Detector.Person : Flight Crew
Were Passengers Involved In Event : N
When Detected : In-flight
Result.Air Traffic Control : Issued New Clearance

Assessments

Contributing Factors / Situations : Procedure
Primary Problem : Procedure

Narrative: 1

I picked up my initial IFR clearance to ZZZ, and got a full reroute as expected. I taxied to the runway and completed my run-up, when ground advised that Miami TRACON gave me another full reroute. This did not make sense to me as it took me to the West Coast of Florida, then past ZZZ to the Northwest, then direct destination. I did not question the clearance since the departure was still ZZZ1 and the destination was still ZZZ. I departed, advising both Tower and Miami TRACON I would fuel critical due to the reroute (expecting to arrive at ZZZ with 1 hour of fuel).

When I was switched to Departure, I asked if they could give me something more direct. I was on radar vectors at the time, heading 360. The Departure Controller advised me that I needed to speak up sooner since the clearance was not correct. She gave me a clearance via ZZZ VOR, then switched me to Palm Beach Approach. Palm Beach had no idea what was going on, since the route made no sense. They kept me on the 360 heading. They switched me again to the next Palm Beach Approach

controller, who issued me another full reroute. I was on vectors still heading 360. They switched me to Miami Center, who said that no one was giving me a correct routing. He cleared me to ZZZ via [route.] This was the route I was expecting all along. When I asked the controller what had happened and why this was all messed up, he said that this was not my fault, and that my flight plan had gotten messed up somewhere in the system. The flight continued at that point to ZZZ uneventfully.

The reason the 5 reroutes were dangerous was because I was single pilot IFR, without an autopilot, in and out of IMC (towering Cumulus and Cumulonimbus clouds), with moderate turbulence. I had to write down clearances on my knee board, reprogram the GPS 5 different times (all times with full reroutes), run checklists, all while maintaining positive control of the airplane (all without an autopilot). From this, I learned a big lesson. When something does not seem correct, it most likely is not correct. I should have spoken up on ground frequency when they issued my clearance up the West Coast.

Synopsis

PA-32R pilot reported weather and multiple route reassignments by ATC resulted in a high workload.

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