

ASRS Database Report Set

General Aviation Flight Training Incidents

Report Set Description.....A sampling of reports referencing General Aviation flight training.

Update Number.....35

Date of UpdateApril 8, 2024

Number of Records in Report Set.....50

Records within this Report Set have been screened to assure their relevance to the topic.

National Aeronautics and
Space Administration

Ames Research Center
Moffett Field, CA 94035-1000



TH: 262-7

MEMORANDUM FOR: Recipients of Aviation Safety Reporting System Data

SUBJECT: Data Derived from ASRS Reports

The attached material is furnished pursuant to a request for data from the NASA Aviation Safety Reporting System (ASRS). Recipients of this material are reminded when evaluating these data of the following points.

ASRS reports are submitted voluntarily. Such incidents are independently submitted and are not corroborated by NASA, the FAA or NTSB. The existence in the ASRS database of reports concerning a specific topic cannot, therefore, be used to infer the prevalence of that problem within the National Airspace System.

Information contained in reports submitted to ASRS may be clarified by further contact with the individual who submitted them, but the information provided by the reporter is not investigated further. Such information represents the perspective of the specific individual who is describing their experience and perception of a safety related event.

After preliminary processing, all ASRS reports are de-identified and the identity of the individual who submitted the report is permanently eliminated. All ASRS report processing systems are designed to protect identifying information submitted by reporters; including names, company affiliations, and specific times of incident occurrence. After a report has been de-identified, any verification of information submitted to ASRS would be limited.

The National Aeronautics and Space Administration and its ASRS current contractor, Booz Allen Hamilton, specifically disclaim any responsibility for any interpretation which may be made by others of any material or data furnished by NASA in response to queries of the ASRS database and related materials.

A handwritten signature in cursive script, appearing to read "B. Hooey".

Becky L. Hooey, Director
NASA Aviation Safety Reporting System

CAVEAT REGARDING USE OF ASRS DATA

Certain caveats apply to the use of ASRS data. All ASRS reports are voluntarily submitted, and thus cannot be considered a measured random sample of the full population of like events. For example, we receive several thousand altitude deviation reports each year. This number may comprise over half of all the altitude deviations that occur, or it may be just a small fraction of total occurrences.

Moreover, not all pilots, controllers, mechanics, flight attendants, dispatchers or other participants in the aviation system are equally aware of the ASRS or may be equally willing to report. Thus, the data can reflect **reporting biases**. These biases, which are not fully known or measurable, may influence ASRS information. A safety problem such as near midair collisions (NMACs) may appear to be more highly concentrated in area “A” than area “B” simply because the airmen who operate in area “A” are more aware of the ASRS program and more inclined to report should an NMAC occur. Any type of subjective, voluntary reporting will have these limitations related to quantitative statistical analysis.

One thing that can be known from ASRS data is that the number of reports received concerning specific event types represents the **lower measure** of the true number of such events that are occurring. For example, if ASRS receives 881 reports of track deviations in 2010 (this number is purely hypothetical), then it can be known with some certainty that at least 881 such events have occurred in 2010. With these statistical limitations in mind, we believe that the **real power** of ASRS data is the **qualitative information** contained in **report narratives**. The pilots, controllers, and others who report tell us about aviation safety incidents and situations in detail – explaining what happened, and more importantly, **why** it happened. Using report narratives effectively requires an extra measure of study, but the knowledge derived is well worth the added effort.

Report Synopses

ACN: 2056353 (1 of 50)

Synopsis

General aviation rotor wing pilot reported having a near miss with a UAS during cruise flight.

ACN: 2054975 (2 of 50)

Synopsis

Small aircraft Flight Instructor expressed concern about terrain clearance issues within the airspace structure in the LAS area.

ACN: 2054349 (3 of 50)

Synopsis

Flight Instructor with student reported that after landing and stopping on the runway another aircraft executed a missed approach overhead and close to the Instructor's aircraft.

ACN: 2054332 (4 of 50)

Synopsis

Flight Instructor reported that engine power decreased by 50 percent during initial climb. Instructor returned to departure airport and taxied back to ramp.

ACN: 2054043 (5 of 50)

Synopsis

PA-28 pilot reported hitting several branches while practicing a 180-degree power off landing without realizing there were trees due to the high altitude.

ACN: 2053718 (6 of 50)

Synopsis

PA-28 flight Instructor reported a NMAC event during takeoff with a landing aircraft. The landing aircraft executed a go around with "zero offset" which promoted the flight Instructor to call for an early crosswind to provide separation.

ACN: 2053684 *(7 of 50)*

Synopsis

C172 Flight Instructor reported a NMAC event during downwind entry pattern with downwind traffic. The downwind traffic aircraft proceeded to do a 360 turn in the downwind leg to give extra spacing and both airplanes landed without further incident.

ACN: 2053669 *(8 of 50)*

Synopsis

Flight Instructor reported a NMAC event during downwind leg while on a training flight. The Instructor saw the non-reporting intruder aircraft turning an early crosswind on a collision course which prompted the Instructor to take evasive action.

ACN: 2053664 *(9 of 50)*

Synopsis

PA-28 flight Instructor with student reported the Tower Controller issued them a heading in the traffic pattern that could have put them on a collision course with another aircraft.

ACN: 2053225 *(10 of 50)*

Synopsis

PA28 flight Instructor reported loss of throttle control on takeoff. Flight Instructor was able to return to a safe landing.

ACN: 2053218 *(11 of 50)*

Synopsis

C172 flight Instructor with student reported departing traffic on runway forced a go around. The departing traffic turned toward the Instructor causing a NMAC and requiring evasive action.

ACN: 2053196 *(12 of 50)*

Synopsis

Flight Instructor with student reported a NMAC event during ATC assigned altitude with a large transport aircraft. The flight Instructor took evasive action to avoid a collision.

ACN: 2052708 *(13 of 50)*

Synopsis

PA28 Instructor reported transponder failure resulted in a NMAC by traffic overflying them.

ACN: 2052700 *(14 of 50)*

Synopsis

C172 flight Instructor reported student loss of control on landing which resulted in runway excursion and contact with a runway edge light.

ACN: 2052698 *(15 of 50)*

Synopsis

C172 student pilot reported loss of control on crosswind touch and go which resulted in runway excursion and prop strike.

ACN: 2052693 *(16 of 50)*

Synopsis

8KCAB Instructor reported student applied full rudder deflection on landing resulted in loss of aircraft control and runway excursion.

ACN: 2052667 *(17 of 50)*

Synopsis

A student pilot in a C172 reported a complete electrical failure and divert to a nearby airport.

ACN: 2052630 *(18 of 50)*

Synopsis

C177 pilot reported a NMAC with another aircraft practicing in the Tower pattern.

ACN: 2052605 *(19 of 50)*

Synopsis

PA-28 Instructor with trainee reported a NMAC at a non-towered airport when the other aircraft made confusing position reports and then appeared in the traffic pattern 300 feet above his aircraft.

ACN: 2051519 *(20 of 50)*

Synopsis

GA pilot reported a NMAC at SHN non-towered airport. The student states the other non communicating aircraft, a helicopter, cut off the student's final approach.

ACN: 2051517 *(21 of 50)*

Synopsis

Flight Instructor with student reported a UAS hovering over the runway while they were on final approach. The UAS moved as they got closer but stayed within the vicinity of the airport.

ACN: 2051179 *(22 of 50)*

Synopsis

Instructor pilot and trainee reported a runway excursion during the trainee's solo touch and go training. The trainee lost control after applying power, exited the pavement, hit taxi lights and dented the aircraft in several places.

ACN: 2050720 *(23 of 50)*

Synopsis

A flight Instructor reported they caused a NMAC when they turned base leg instead of staying on downwind as instructed by Tower.

ACN: 2050709 *(24 of 50)*

Synopsis

Flight Instructor on training flight with student was notified of a NMAC after the flight was completed.

ACN: 2050707 *(25 of 50)*

Synopsis

Fight Instructor reported a UAS in the traffic pattern caused near midair collisions with two training aircraft.

ACN: 2050705 *(26 of 50)*

Synopsis

Flight Instructor on training flight with student reported brake failure on landing rollout. Aircraft departed the runway and rolled to a stop in the grass.

ACN: 2050684 *(27 of 50)*

Synopsis

Flight Instructor on training flight with student reported a NMAC with another aircraft while in the 169 non-towered airport traffic pattern.

ACN: 2050663 *(28 of 50)*

Synopsis

PA-28 Flight Instructor reported a complete electrical failure on initial climb that resulted in a loss of transponder, communications, all primary flight instruments, maps, and charts. With the help of the flight school's Chief Pilot for communication with ATC, the Flight Instructor landed safely.

ACN: 2050642 *(29 of 50)*

Synopsis

A Flight Instructor conducting training for a single engine landing reported a prop strike and gear up landing resulting in a go around followed by a successful landing.

ACN: 2050640 *(30 of 50)*

Synopsis

A Flight Instructor reported a small aircraft taxiing at a high rate of speed shouted a warning to them as it passed by them without warning from ATC.

ACN: 2050639 *(31 of 50)*

Synopsis

PA-28 Flight Instructor reported a runway incursion occurred as an aircraft that was landing did not comply with ATC's instruction to exit the runway at a specific taxiway. To ensure there was proper clearance between aircraft, the Flight Instructor requested a different taxiway to safely exit off the runway.

ACN: 2050627 *(32 of 50)*

Synopsis

PA-28 Flight Instructor reported a near miss while conducting maneuvers on a training flight. The Instructor identified the other aircraft and descended to the right to avoid a collision.

ACN: 2050035 *(33 of 50)*

Synopsis

GA flight Instructor reported a student on a solo flight experienced a hard landing and bounced the aircraft twice before regaining control and taxiing off. The aircraft was flown by other pilots a few days after the incident before it was found to have fire wall damage during a scheduled maintenance inspection.

ACN: 2049655 *(34 of 50)*

Synopsis

A Flight Instructor reported a NMAC while turning base leg at a non towered airport.

ACN: 2049330 *(35 of 50)*

Synopsis

C172 Flight Instructor reported a NMAC in the pattern at a non-towered airport.

ACN: 2049325 *(36 of 50)*

Synopsis

Cessna 172 pilot reported the aircraft started rolling after engine start even though the parking brake was set and struck a fence.

ACN: 2049310 *(37 of 50)*

Synopsis

PA-28-181 Flight Instructor reported an engine malfunction in the traffic pattern on base leg. The Instructor took control when the engine lost power, turned to the runway and landed just short of the runway in the grass then rolled onto the runway where the engine stopped and the Instructor and student evacuated unhurt with no damage to the aircraft or runway lights.

ACN: 2048430 *(38 of 50)*

Synopsis

A single engine pilot reported a loss of control while attempting to land. The aircraft drifted left of center and while airborne made contact with some runway lights. With help from the accompanying CFI, a go-around was accomplished and then a normal landing.

ACN: 2048404 *(39 of 50)*

Synopsis

General aviation Flight Instructor reported a near miss with another aircraft in the traffic pattern during a training flight. The tower instructed the other aircraft to perform a maneuver to separate the traffic and changed the Instructor pilots landing sequence to provide more separation in the traffic pattern.

ACN: 2048382 *(40 of 50)*

Synopsis

A Flight Instructor reported taking the runway with landing traffic and continuing takeoff resulted in a critical ground conflict and NMAC on climbout.

ACN: 2048348 *(41 of 50)*

Synopsis

General aviation rotor craft Instructor pilot reported a near miss while in the airport traffic pattern. The Instructor performed a low pass, re-entered the pattern, then lost communications with the tower and conflicted with another aircraft, then turned away from the conflict and returned to the home airport.

ACN: 2047700 *(42 of 50)*

Synopsis

A Flight Instructor reported a NMAC after turning to a heading assigned by the Tower.

ACN: 2047302 *(43 of 50)*

Synopsis

Student pilot reported that the "on glide path" profile when using the PAPI for VKX Runway 24 is very close to the trees at the approach end of the runway. The reporter suggested the tree tops be trimmed.

ACN: 2047289 *(44 of 50)*

Synopsis

Instructor pilot reported a near miss while on a training flight after departing a tower-controlled airport and communicating with ATC. The Instructor was alerted by ADS-B, then observed the aircraft at the same altitude coming toward the flight, and maneuvered sharply to avoid the conflict.

ACN: 2047010 *(45 of 50)*

Synopsis

P28A Flight Instructor reported returning to departure airport after experiencing electrical system issues. Aircraft landed safely, and all electrical power was lost after landing.

ACN: 2046993 *(46 of 50)*

Synopsis

Multi-engine Flight Instructor and student reported a runway incursion at CNO airport after landing on an intersecting runway. The CFI reported difficulty seeing painted markings due to the geometry of the turn when exiting. Student recommended making airport management aware of the potential for incursions due to the short distance between hold short bars and no additional lights or markings to indicate hold short.

ACN: 2046991 *(47 of 50)*

Synopsis

PA 28-181 Flight Instructor reported an alternator failure during cruise, while on a training flight. The Instructor took control of the aircraft, diverted and landed safely.

ACN: 2046118 *(48 of 50)*

Synopsis

Pilot reported on downwind leg taking evasive action to avoid an overtaking aircraft resulted in a NMAC.

ACN: 2046086 *(49 of 50)*

Synopsis

A Cessna 172 pilot reported taking evasive action to avoid a skydive aircraft viewed on TIS-B broadcast resulted in a NMAC.

ACN: 2046072 *(50 of 50)*

Synopsis

Helicopter Instructor reported taking evasive action to avoid a Regional Jet who also followed an RA resulted in a NMAC.

Report Narratives

Time / Day

Date : 202311

Local Time Of Day : 1801-2400

Place

Locale Reference.Airport : BDN.Airport

State Reference : OR

Relative Position.Distance.Nautical Miles : 5

Altitude.MSL.Single Value : 4800

Environment

Flight Conditions : VMC

Weather Elements / Visibility.Visibility : 10

Light : Night

Ceiling.Single Value : 12000

Aircraft : 1

Reference : X

Aircraft Operator : FBO

Make Model Name : Helicopter

Crew Size.Number Of Crew : 2

Operating Under FAR Part : Part 91

Flight Plan : VFR

Mission : Training

Flight Phase : Cruise

Route In Use : None

Airspace.Class E : BDN

Aircraft : 2

Reference : Y

Make Model Name : UAV: Unpiloted Aerial Vehicle

Crew Size.Number Of Crew : 1

Airspace.Class E : BDN

Weight Category (UAS) : Small

Configuration (UAS) : Multi-Rotor

Flying In / Near / Over (UAS) : Airport / Aerodrome / Heliport

Flying In / Near / Over (UAS) : Aircraft / UAS

Person

Location Of Person.Aircraft : X

Location In Aircraft : Flight Deck

Reporter Organization : FBO

Function.Flight Crew : Pilot Flying

Qualification.Flight Crew : Private

Qualification.Flight Crew : Instrument

Experience.Flight Crew.Total : 152.3

Experience.Flight Crew.Last 90 Days : 25.7

Experience.Flight Crew.Type : 98.6

ASRS Report Number.Accession Number : 2056353

Human Factors : Training / Qualification
Human Factors : Situational Awareness
Analyst Callback : Attempted

Events

Anomaly.Airspace Violation : All Types
Anomaly.Conflict : NMAC
Anomaly.Deviation / Discrepancy - Procedural : Unauthorized Flight Operations (UAS)
Anomaly.Deviation / Discrepancy - Procedural : Published Material / Policy
Anomaly.Deviation / Discrepancy - Procedural : FAR
Detector.Person : Flight Crew
Miss Distance.Horizontal : 60
Miss Distance.Vertical : 5
When Detected : In-flight
Result.Flight Crew : Took Evasive Action

Assessments

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

Narrative: 1

Night flight as pilot flying, PDPIC (Performing Duties of Pilot in Command), commercial training cross country. 5nm SW of KBDN, approaching location from the north, no local towers or buildings nearby. Roughly XA: 30-XA: 45 PST. Saw a drone at our altitude with minimal green lighting, no anti collision lights. I did not see them until they were less than 1/2sm away. As PIC I chose to deviate course while verbalizing the hazard. There was no traffic alert and proper evasive action was taken. They passed an estimated 50-60 ft. (or less) off our right side at +/- 5 ft. of our altitude. Upon confirming my aircraft was safe from the hazard, I noted our altitude and conferred with my passenger about our estimation of the horizontal distance. We proceeded to our destination without further problems. I believe the person flying the drone created a dangerous environment by not complying with Part 107.29 rules for drone operation at night. Prevention of recurrence of this situation would be if the person was found, recurrent training and proof of installation of proper anti collision lighting. Overall, requiring adsb-out for drones capable of reaching higher altitudes would also help prevent recurrence.

Synopsis

General aviation rotor wing pilot reported having a near miss with a UAS during cruise flight.

Time / Day

Date : 202311

Local Time Of Day : 1201-1800

Place

Locale Reference.Airport : LAS.Airport

State Reference : NV

Altitude.MSL.Single Value : 4500

Environment

Flight Conditions : VMC

Weather Elements / Visibility.Visibility : 10

Light : Daylight

Aircraft

Reference : X

ATC / Advisory.TRACON : L30

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 : None

Mission : Training

Flight Phase : Descent

Route In Use : Visual Approach

Airspace.Class B : LAS

Component

Aircraft Component : Indicating and Warning - Fuel System

Aircraft Reference : X

Problem : Malfunctioning

Person

Location Of Person.Aircraft : X

Location In Aircraft : Flight Deck

Reporter Organization : FBO

Function.Flight Crew : Instructor

Function.Flight Crew : Pilot Flying

Qualification.Flight Crew : Commercial

Qualification.Flight Crew : Instrument

Qualification.Flight Crew : Multiengine

Qualification.Flight Crew : Flight Instructor

Experience.Flight Crew.Total : 276

Experience.Flight Crew.Last 90 Days : 27

Experience.Flight Crew.Type : 0

ASRS Report Number.Accession Number : 2054975

Human Factors : Workload

Human Factors : Situational Awareness

Events

Anomaly.Aircraft Equipment Problem : Less Severe
Anomaly.Airspace Violation : All Types
Anomaly.Deviation / Discrepancy - Procedural : Published Material / Policy
Anomaly.Deviation / Discrepancy - Procedural : FAR
Anomaly.Inflight Event / Encounter : Fuel Issue
Detector.Automation : Aircraft Other Automation
Detector.Person : Flight Crew
Miss Distance.Vertical : 500
When Detected : In-flight
Result.Flight Crew : Took Evasive Action

Assessments

Contributing Factors / Situations : Aircraft
Contributing Factors / Situations : Airspace Structure
Contributing Factors / Situations : Human Factors
Primary Problem : Airspace Structure

Narrative: 1

Aircraft X training flight practicing cross-country VFR navigation east of Las Vegas airspace. Enroute to our return destination, HND, we received a yellow CAS for fuel. We stopped at ZZZ to visually confirm fuel, and fuel was above 'tabs.' We did a run-up and then continued west for a traditional arrival over VPVTR [visual point] into HND. Enroute, south of VPVDP, we received a red CAS for minimum fuel and so we began an immediate eastward arrival into Henderson through VPVDP. Although we visually confirmed fuel, I was unsure if the issue could be due to a sensor, onboard W&B (Weight and Balance) programming or very unlikely fuel starvation within the lines. We proceeded and requested our arrival with 'minimum fuel' as to be cautious. As we began to arrest our descent at 4500 ft. to avoid the overlying Class B and underlying terrain at VPVDP, I interpreted the engine performance to be less than expected at our present settings - 2660 RPM, approximately 26.5 in. Hg - and in anticipation of descending further, I proceeded further west to avoid the terrain. This, however, allowed only a small horizontal gap between the terrain and LAS Class B. Once clear of terrain, I immediately entered a 30-degree bank to avoid the Class B airspace, but I went into the controlled airspace by approximately 0.4 NM. HND ATC was on the phone with LAS TRACON at this time and the situation was resolved. To avoid future Class B conflicts, I will no longer look at the VPVDP arrival as an entry or exit point from HND airspace during training flights. The terrain clearance of 500 ft. and the airway horizontal / vertical restrictions from the Class B surface shelf are too limiting. Lastly, this same Class B shelf is only 1.4 NM from departure end of Runway 35L/R at HND, meaning most traditional GA aircraft with more than 200 HP must turn 'crosswind' below the FAA advised altitude of 700 ft. AGL, otherwise a Class B incursion is likely. I think it would be beneficial for the FAA to look at this sector of airspace once more to see if further adjustments are worth recommendation.

Synopsis

Small aircraft Flight Instructor expressed concern about terrain clearance issues within the airspace structure in the LAS area.

Time / Day

Date : 202311

Local Time Of Day : 1201-1800

Place

Locale Reference.Airport : MMV.Airport

State Reference : OR

Altitude.MSL.Single Value : 163

Environment

Flight Conditions : VMC

Light : Daylight

Aircraft : 1

Reference : X

ATC / Advisory.CTAF : MMV

Aircraft Operator : Personal

Make Model Name : Small Aircraft

Crew Size.Number Of Crew : 2

Operating Under FAR Part : Part 91

Flight Plan : VFR

Mission : Training

Flight Phase : Landing

Route In Use.Other

Aircraft : 2

Reference : Y

ATC / Advisory.CTAF : MMV

Aircraft Operator : Personal

Make Model Name : Small Aircraft

Crew Size.Number Of Crew : 1

Operating Under FAR Part : Part 91

Flight Plan : VFR

Mission : Training

Nav In Use.Localizer/Glideslope/ILS : RWY LOC 22

Person

Location Of Person.Aircraft : X

Location In Aircraft : Flight Deck

Reporter Organization : FBO

Function.Flight Crew : Instructor

Qualification.Flight Crew : Multiengine

Qualification.Flight Crew : Instrument

Qualification.Flight Crew : Flight Instructor

Experience.Flight Crew.Total : 838

Experience.Flight Crew.Last 90 Days : 100

Experience.Flight Crew.Type : 790

ASRS Report Number.Accession Number : 2054349

Human Factors : Situational Awareness

Human Factors : Communication Breakdown
Communication Breakdown.Party1 : Flight Crew
Communication Breakdown.Party2 : Flight Crew

Events

Anomaly.Conflict : Ground Conflict, Critical
Detector.Automation : Aircraft TA
Miss Distance.Horizontal : 35
Miss Distance.Vertical : 100
Result.Flight Crew : Took Evasive Action

Assessments

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

Narrative: 1

During a training flight me and my student were in the traffic pattern at MMV in left traffic for Runway 22. There were multiple helicopters in the pattern for the taxiway parallel to the runway as well and Aircraft Y on the Localizer approach to Runway 22. My student and I were in the downwind configuring and preparing to turn base when Aircraft Y called he was 5nm out for a low approach on the Localizer practice approach. I confirmed his distance on our ADS-B receiving MFD and chose to complete the traffic pattern as he showed to still be 5 miles out. We called our base turn and turned base. I continued to evaluate his position through out base segment. Upon turning final he had closed the gap from 5 nm to approximately 3nm between us. I continued to verify his position as we flew our final approach in and continued to report our position while stating we planned to. do a touch and go and stay in the pattern. During the final 1/4 mile of our approach we were receiving Traffic alerts from the G1000 as he was at same altitude and less than a mile. Upon landing I told the student to full stop as I was concerned if his ADSB was just wrong or if he was really that low and flying at us. I then spotted Aircraft Y approximately 70-100 feet above us while we were on the runway and of to the side about 30-40 feet. Aircraft Y's last call was a executing a missed approach departing to the north which came at around a 1/4nm final for Aircraft Y. Being a CFII I had expected them to be approximately 500 feet AGL at least as the minimums for this approach were 660 MSL or 440 AGL. My first assumption upon reflecting on this occurrence was that they meant they were on the ILS approach not the LOC however they would still have been too low for that approach as the minimums are at 200 AGL and missed would've started before the runway causing them to be well above 200 AGL by the time they passed above us.

Synopsis

Flight Instructor with student reported that after landing and stopping on the runway another aircraft executed a missed approach overhead and close to the Instructor's aircraft.

Time / Day

Date : 202311

Local Time Of Day : 0601-1200

Place

Locale Reference.Airport : ZZZ.Airport

State Reference : US

Relative Position.Distance.Nautical Miles : 0.6

Altitude.MSL.Single Value : 300

Environment

Flight Conditions : VMC

Weather Elements / Visibility.Visibility : 10

Light : Daylight

Aircraft

Reference : X

ATC / Advisory.Tower : ZZZ

Aircraft Operator : FBO

Make Model Name : Skyhawk 172/Cutlass 172

Crew Size.Number Of Crew : 2

Operating Under FAR Part : Part 91

Flight Plan : VFR

Mission : Training

Flight Phase : Initial Climb

Component

Aircraft Component : Engine

Aircraft Reference : X

Problem : Malfunctioning

Person

Location Of Person.Aircraft : X

Location In Aircraft : Flight Deck

Reporter Organization : FBO

Function.Flight Crew : Instructor

Function.Flight Crew : Pilot Flying

Qualification.Flight Crew : Commercial

Qualification.Flight Crew : Instrument

Qualification.Flight Crew : Multiengine

Qualification.Flight Crew : Flight Instructor

Experience.Flight Crew.Total : 680.9

Experience.Flight Crew.Last 90 Days : 175

Experience.Flight Crew.Type : 500

ASRS Report Number.Accession Number : 2054332

Human Factors : Troubleshooting

Human Factors : Time Pressure

Events

Anomaly.Aircraft Equipment Problem : Critical
Result.General : Flight Cancelled / Delayed
Result.Flight Crew : Landed in Emergency Condition
Result.Flight Crew : Returned To Departure Airport

Assessments

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

Narrative: 1

On takeoff roll on XXR at ZZZ every engine instrument was in the green. We rotated at 55 KTS and at 300 ft AGL the engine went from full power (2600 RPM) to 1300 RPM immediately. I then assessed the situation, contacted tower and went to land on Runway XYR at ZZZ. I landed the aircraft denied assistance and taxied back to the ramp.

Synopsis

Flight Instructor reported that engine power decreased by 50 percent during initial climb. Instructor returned to departure airport and taxied back to ramp.

Time / Day

Date : 202311

Local Time Of Day : 1201-1800

Place

Locale Reference.Airport : ZZZ.Airport

State Reference : US

Altitude.AGL.Single Value : 200

Environment

Weather Elements / Visibility.Visibility : 10

Light : Night

Ceiling.Single Value : 12000

Aircraft

Reference : X

ATC / Advisory.CTAF : ZZZ

Aircraft Operator : Personal

Make Model Name : PA-28 Cherokee/Archer/Dakota/Pillan/Warrior

Crew Size.Number Of Crew : 1

Operating Under FAR Part : Part 91

Flight Plan : SVFR

Mission : Training

Flight Phase : Landing

Airspace.Class G : ZZZ

Person

Location Of Person.Aircraft : X

Location In Aircraft : Flight Deck

Reporter Organization : Personal

Function.Flight Crew : Pilot Flying

Function.Flight Crew : Single Pilot

Qualification.Flight Crew : Multiengine

Qualification.Flight Crew : Flight Instructor

Qualification.Flight Crew : Air Transport Pilot (ATP)

Experience.Flight Crew.Total : 2200

Experience.Flight Crew.Last 90 Days : 10

Experience.Flight Crew.Type : 400

ASRS Report Number.Accession Number : 2054043

Human Factors : Training / Qualification

Human Factors : Situational Awareness

Events

Anomaly.Deviation - Altitude : Overshoot

Anomaly.Deviation / Discrepancy - Procedural : Published Material / Policy

Anomaly.Inflight Event / Encounter : Object

Anomaly.Inflight Event / Encounter : CFTT / CFIT

Detector.Person : Flight Crew

When Detected : In-flight
Result.Flight Crew : Took Evasive Action

Assessments

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

Narrative: 1

Practice 180-degree power off accuracy landing Runway XX at ZZZ for proficiency. Farther from airport than anticipated. No flaps, 75 mph. Airplane was cocked up to higher than normal attitude. Clear sight of runway, no obstructions seen, double red VASI. Tree branches popped up into view, hit several high branches, added power, completed landing. Inspected aircraft for damage. High attitude prevented seeing trees until I descended in to them. In speaking to a fellow instructor and also a Designated Pilot Examiner, I adopted two recommendations he made. Do not practice night 180-degree power off accuracy landing without an instructor. Always stay on VASI, white / red, at night even though my day landings / touchdowns are generally below VASI to conserve rollout.

Synopsis

PA-28 pilot reported hitting several branches while practicing a 180-degree power off landing without realizing there were trees due to the high altitude.

Time / Day

Date : 202311

Local Time Of Day : 0601-1200

Place

Locale Reference.ATC Facility : ZZZ.ARTCC

State Reference : US

Environment

Flight Conditions : VMC

Light : Daylight

Aircraft : 1

Reference : X

Aircraft Operator : FBO

Make Model Name : PA-28 Cherokee/Archer/Dakota/Pillan/Warrior

Crew Size.Number Of Crew : 2

Operating Under FAR Part : Part 91

Flight Plan : None

Mission : Training

Flight Phase : Initial Climb

Aircraft : 2

Reference : Y

Aircraft Operator : FBO

Make Model Name : PA-44 Seminole/Turbo Seminole

Crew Size.Number Of Crew : 1

Operating Under FAR Part : Part 91

Flight Plan : None

Mission : Training

Flight Phase : Initial Climb

Person

Location Of Person.Aircraft : X

Location In Aircraft : Flight Deck

Reporter Organization : FBO

Function.Flight Crew : Instructor

Qualification.Flight Crew : Commercial

Qualification.Flight Crew : Flight Instructor

Experience.Flight Crew.Total : 386.9

Experience.Flight Crew.Last 90 Days : 129.6

Experience.Flight Crew.Type : 245.3

ASRS Report Number.Accession Number : 2053718

Human Factors : Workload

Human Factors : Other / Unknown

Human Factors : Time Pressure

Events

Anomaly.Conflict : NMAC
Anomaly.Deviation / Discrepancy - Procedural : Published Material / Policy
Detector.Person : Flight Crew
Miss Distance.Horizontal : 0
Miss Distance.Vertical : 300
When Detected : In-flight
Result.Flight Crew : Took Evasive Action

Assessments

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

Narrative: 1

My student and I were practicing landings at ZZZ, making normal radio calls for an uncontrolled airport. As part of the radio calls, we would specify type landing as a stop & go. About midway through practicing landings, the event occurred. While on the go during a stop & go, Aircraft Y asked us if we were doing a touch & or a full-stop. They called a go-around and we were climbing out on the initial portion of the climb-out. Aircraft Y had zero offset, and historical ADS-B records indicate 300 feet separation, but ADS-B indications in the aircraft indicated as close as a "+2" indication. I tried looking for the traffic, but could not make visual. I called for an early crosswind.

Synopsis

PA-28 flight Instructor reported a NMAC event during takeoff with a landing aircraft. The landing aircraft executed a go around with "zero offset" which prompted the flight Instructor to call for an early crosswind to provide separation.

Time / Day

Date : 202311

Local Time Of Day : 1201-1800

Place

Locale Reference.Airport : ZZZ.Airport

State Reference : US

Altitude.MSL.Single Value : 1300

Environment

Flight Conditions : VMC

Weather Elements / Visibility.Visibility : 10

Light : Daylight

Ceiling.Single Value : 3800

Aircraft : 1

Reference : X

ATC / Advisory.CTAF : ZZZ

Aircraft Operator : FBO

Make Model Name : Skyhawk 172/Cutlass 172

Crew Size.Number Of Crew : 2

Operating Under FAR Part : Part 91

Flight Plan : None

Mission : Training

Flight Phase : Initial Approach

Route In Use : Visual Approach

Airspace.Class G : ZZZ

Aircraft : 2

Reference : Y

Aircraft Operator : Personal

Make Model Name : Grumman American Undifferentiated or Other Model

Crew Size.Number Of Crew : 1

Operating Under FAR Part : Part 91

Flight Plan : None

Mission : Personal

Flight Phase : Initial Approach

Airspace.Class G : ZZZ

Person

Location Of Person.Aircraft : X

Location In Aircraft : Flight Deck

Reporter Organization : FBO

Function.Flight Crew : Instructor

Qualification.Flight Crew : Flight Instructor

Qualification.Flight Crew : Commercial

Qualification.Flight Crew : Instrument

Experience.Flight Crew.Total : 499.8

ASRS Report Number.Accession Number : 2053684

Human Factors : Workload
Human Factors : Time Pressure

Events

Anomaly.Conflict : NMAC
Anomaly.Deviation - Altitude : Excursion From Assigned Altitude
Anomaly.Deviation / Discrepancy - Procedural : Published Material / Policy
Detector.Person : Flight Crew
Miss Distance.Vertical : 400
When Detected : In-flight
Result.Flight Crew : Overcame Equipment Problem

Assessments

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

Narrative: 1

C172 was entering traffic pattern for Runway XX at ZZZ with standard 45 degree midfield left downwind entry for Runway XX at pattern altitude of 1,350 [ft.] MSL. On board the airplane was 1 student pilot and 1 flight instructor. Traffic calls were made at 5 miles out on the 45 for left downwind. Aircraft Y was in the pattern on a crosswind leg and turned downwind as C172 entered downwind. Occupants on the C172 never saw Aircraft Y and never heard crosswind traffic call however Aircraft Y pilot stated on CTAF he was at 1,600 ft. MSL instead of traffic pattern altitude and stated if he were at correct traffic pattern altitude the aircraft would have been very close to collision. Estimated separation approximately 400 ft. Aircraft Y proceeded to do a 360 turn in the downwind leg to give extra spacing and both airplanes landed without further incident.

Synopsis

C172 Flight Instructor reported a NMAC event during downwind entry pattern with downwind traffic. The downwind traffic aircraft proceeded to do a 360 turn in the downwind leg to give extra spacing and both airplanes landed without further incident.

Time / Day

Date : 202311

Local Time Of Day : 0601-1200

Place

Locale Reference.Airport : ZZZ.Airport

State Reference : US

Altitude.MSL.Single Value : 1000

Environment

Flight Conditions : VMC

Light : Daylight

Ceiling.Single Value : 5500

Aircraft : 1

Reference : X

Aircraft Operator : Personal

Make Model Name : PA-28 Cherokee/Archer/Dakota/Pillan/Warrior

Crew Size.Number Of Crew : 2

Operating Under FAR Part : Part 91

Flight Plan : None

Mission : Training

Flight Phase : Initial Approach

Route In Use.Other

Aircraft : 2

Reference : Y

Aircraft Operator : Personal

Make Model Name : PA-28 Cherokee/Archer/Dakota/Pillan/Warrior

Crew Size.Number Of Crew : 1

Operating Under FAR Part : Part 91

Flight Plan : None

Mission : Training

Flight Phase : Climb

Route In Use : None

Person : 1

Location Of Person.Aircraft : X

Location In Aircraft : Flight Deck

Reporter Organization : FBO

Function.Flight Crew : Instructor

Qualification.Flight Crew : Flight Instructor

Qualification.Flight Crew : Instrument

Qualification.Flight Crew : Commercial

Qualification.Flight Crew : Multiengine

Experience.Flight Crew.Total : 1530

Experience.Flight Crew.Last 90 Days : 123

Experience.Flight Crew.Type : 900

ASRS Report Number.Accession Number : 2053669

Human Factors : Time Pressure
Human Factors : Workload
Human Factors : Communication Breakdown
Communication Breakdown.Party1 : Flight Crew
Communication Breakdown.Party2 : Flight Crew

Person : 2

Location Of Person.Aircraft : Y
Location In Aircraft : Flight Deck
Reporter Organization : FBO
Function.Flight Crew : Single Pilot
Function.Flight Crew : Pilot Flying
Qualification.Flight Crew : Instrument
Qualification.Flight Crew : Private
Experience.Flight Crew.Total : 191.8
Experience.Flight Crew.Last 90 Days : 114.6
Experience.Flight Crew.Type : 184.8
ASRS Report Number.Accession Number : 2053679
Human Factors : Troubleshooting
Human Factors : Time Pressure

Events

Anomaly.Conflict : NMAC
Anomaly.Deviation - Track / Heading : All Types
Anomaly.Deviation / Discrepancy - Procedural : Published Material / Policy
Detector.Person : Flight Crew
Miss Distance.Horizontal : 150
Miss Distance.Vertical : 0
When Detected : In-flight
Result.Flight Crew : Took Evasive Action

Assessments

Contributing Factors / Situations : Chart Or Publication
Contributing Factors / Situations : Human Factors
Primary Problem : Human Factors

Narrative: 1

I was doing pattern work with a student and we had just rolled wings level on the downwind leg when we saw Aircraft Y rapidly approaching us from the crosswind leg. He had done a touch and go behind us without making any radio calls so we were not aware he was there and was following us on the upwind leg. He turned crosswind earlier and lower than he should have which put him on a collision course from beneath our left wing where we could not see him. We saw him when he came in view at our 10 o'clock forward of our wing and he was climbing right into us as he began turning downwind. I estimate he was around 100-200 ft. from us at this point. We immediately did a right 360 and let him continue on the downwind leg ahead of us. Solution 1: Make radio calls on every leg at an uncontrolled airport. He was not making radio calls on his upwind and crosswind legs (it is possible we missed the transmissions but do not recall hearing any radio calls). Solution 2: Aircraft in the pattern need to wait to turn crosswind until 300 ft. below TPA like recommended in AC 90-66C paragraph 11.7. This could have mitigated this problem by preventing him from turning crosswind so soon and also putting him higher on the crosswind leg giving us a better chance of spotting him in a low wing airplane. Solution 3:

Use ADS-B in for traffic advisories. After speaking with the Chief CFI from the school of the conflict aircraft it was determined that this student was on a solo flight and those students rarely use ADS-B in for traffic awareness. I think this is a must, especially when flying on a nice morning at a busy uncontrolled airport.

Narrative: 2

In ZZZ airport I was in traffic pattern and I missed the traffic coming to left downwind Runway XX. I turned downwind too early. I got flight and ground training about radio communication and uncontrolled air space procedure.

Synopsis

Flight Instructor reported a NMAC event during downwind leg while on a training flight. The Instructor saw the non-reporting intruder aircraft turning an early crosswind on a collision course which prompted the Instructor to take evasive action.

Time / Day

Date : 202311

Local Time Of Day : 0601-1200

Place

Locale Reference.ATC Facility : ZZZ.Tower

State Reference : US

Relative Position.Distance.Nautical Miles : 2

Altitude.MSL.Single Value : 1000

Environment

Flight Conditions : VMC

Light : Daylight

Aircraft : 1

Reference : X

ATC / Advisory.Tower : ZZZ

Aircraft Operator : Personal

Make Model Name : PA-28 Cherokee/Archer/Dakota/Pillan/Warrior

Crew Size.Number Of Crew : 2

Operating Under FAR Part : Part 91

Flight Plan : None

Mission : Training

Flight Phase : Final Approach

Route In Use : Visual Approach

Airspace.Class D : ZZZ

Aircraft : 2

Reference : Y

Make Model Name : Cessna 150

Crew Size.Number Of Crew : 1

Flight Phase : Final Approach

Airspace.Class D : ZZZ

Person

Location Of Person.Aircraft : X

Location In Aircraft : Flight Deck

Reporter Organization : FBO

Function.Flight Crew : Instructor

Function.Flight Crew : Pilot Not Flying

Qualification.Flight Crew : Commercial

Qualification.Flight Crew : Instrument

Qualification.Flight Crew : Multiengine

Qualification.Flight Crew : Flight Instructor

Experience.Flight Crew.Total : 578

Experience.Flight Crew.Last 90 Days : 177.4

Experience.Flight Crew.Type : 183

ASRS Report Number.Accession Number : 2053664

Human Factors : Communication Breakdown

Communication Breakdown.Party1 : Flight Crew
Communication Breakdown.Party2 : ATC
Analyst Callback : Completed

Events

Anomaly.ATC Issue : All Types
Anomaly.Conflict : NMAC
Anomaly.Deviation / Discrepancy - Procedural : Published Material / Policy
Detector.Person : Flight Crew
Miss Distance.Horizontal : 500
Miss Distance.Vertical : 0
When Detected : In-flight
Result.Flight Crew : Took Evasive Action

Assessments

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

Narrative: 1

At ZZZ the tower instructed Aircraft X in front of a C150 on final. As PIC I determined that this instruction would have put us on a collision course with the aircraft on final. After listening to the ATC audio and reviewing the ADSB data I am still of the opinion that this would have caused undue hazard to the safety of our flight. I understand that mistakes do happen on ATC's part.

Callback: 1

Reporter stated that they did not comply with the ATC issued heading because it would have caused a collision with the other traffic.

Synopsis

PA-28 flight Instructor with student reported the Tower Controller issued them a heading in the traffic pattern that could have put them on a collision course with another aircraft.

Time / Day

Date : 202311

Local Time Of Day : 1201-1800

Place

Locale Reference.ATC Facility : ZZZ.Tower

State Reference : US

Relative Position.Distance.Nautical Miles : 0.5

Altitude.MSL.Single Value : 1400

Environment

Weather Elements / Visibility.Visibility : 10

Light : Daylight

Aircraft

Reference : X

ATC / Advisory.Tower : ZZZ

Aircraft Operator : FBO

Make Model Name : PA-28 Cherokee/Archer/Dakota/Pillan/Warrior

Crew Size.Number Of Crew : 2

Operating Under FAR Part : Part 91

Flight Plan : None

Mission : Training

Flight Phase : Initial Climb

Route In Use : None

Airspace.Class D : ZZZ

Component

Aircraft Component : Throttle/Power Lever

Aircraft Reference : X

Problem : Failed

Person

Location Of Person.Aircraft : X

Location In Aircraft : Flight Deck

Reporter Organization : FBO

Function.Flight Crew : Instructor

Qualification.Flight Crew : Commercial

Qualification.Flight Crew : Instrument

Qualification.Flight Crew : Multiengine

Qualification.Flight Crew : Flight Instructor

Experience.Flight Crew.Total : 8528

Experience.Flight Crew.Last 90 Days : 53

Experience.Flight Crew.Type : 6300

ASRS Report Number.Accession Number : 2053225

Human Factors : Troubleshooting

Events

Anomaly.Aircraft Equipment Problem : Critical
Detector.Person : Flight Crew
When Detected : In-flight
Result.Flight Crew : Landed in Emergency Condition
Result.Flight Crew : Overcame Equipment Problem

Assessments

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

Narrative: 1

At ZZZ, upon leveling off at 1400 MSL from a climb out after a touch and go in the left traffic pattern of [Runway] XXL, the power remained at full power when we reduced the throttle position. We performed our checklist and discovered that the RPM's remained at full throttle regardless of the position of the throttle lever. We told the Tower that we had lost throttle control and needed an immediate landing on XXR. The Tower cleared us to land on XXR and redirected traffic efficiently. We used the mixture control to modulate power and landed uneventfully on XXR. The engine quit upon rollout and we were able to coast clear of the runway. Tower sent operational help and we called for a tow.

Synopsis

PA28 flight Instructor reported loss of throttle control on takeoff. Flight Instructor was able to return to a safe landing.

Time / Day

Date : 202311

Local Time Of Day : 1201-1800

Place

Locale Reference.Airport : ZZZ.Airport

State Reference : US

Altitude.MSL.Single Value : 700

Environment

Flight Conditions : VMC

Weather Elements / Visibility.Visibility : 10

Light : Daylight

Aircraft : 1

Reference : X

ATC / Advisory.CTAF : ZZZ

Aircraft Operator : FBO

Make Model Name : Skyhawk 172/Cutlass 172

Crew Size.Number Of Crew : 2

Operating Under FAR Part : Part 91

Flight Plan : None

Mission : Training

Flight Phase : Final Approach

Route In Use : None

Airspace.Class E : ZZZ

Aircraft : 2

Reference : Y

ATC / Advisory.CTAF : ZZZ

Make Model Name : Cessna 150

Flight Phase : Initial Climb

Airspace.Class E : ZZZ

Person

Location Of Person.Aircraft : X

Location In Aircraft : Flight Deck

Reporter Organization : FBO

Function.Flight Crew : Instructor

Function.Flight Crew : Pilot Flying

Qualification.Flight Crew : Commercial

Qualification.Flight Crew : Multiengine

Qualification.Flight Crew : Instrument

Qualification.Flight Crew : Flight Instructor

Experience.Flight Crew.Total : 984.1

Experience.Flight Crew.Last 90 Days : 123.6

Experience.Flight Crew.Type : 712.0

ASRS Report Number.Accession Number : 2053218

Human Factors : Time Pressure

Human Factors : Training / Qualification
Human Factors : Communication Breakdown
Communication Breakdown.Party1 : Flight Crew
Communication Breakdown.Party2 : Flight Crew

Events

Anomaly.Conflict : NMAC
Anomaly.Deviation / Discrepancy - Procedural : Published Material / Policy
Detector.Person : Flight Crew
Miss Distance.Horizontal : 100
Miss Distance.Vertical : 100
When Detected : In-flight
Result.Flight Crew : Took Evasive Action
Result.Flight Crew : Executed Go Around / Missed Approach

Assessments

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

Narrative: 1

Me and my student were doing pattern work at our home airport (ZZZ). While on a left downwind for runway XX, another Ce172 announces on the CTAF that they are on a 3 mile final for the RNAV XX. We decide to extend our downwind slightly to allow for spacing between us and the RNAV traffic, and we announce our intentions on CTAF. Shortly after turning final, and before the RNAV traffic was clear of the runway, a Ce150 [Aircraft Y] announces on CTAF that they are departing runway XX, and planning to depart to the west. Aircraft Y lines up on the runway, but has to wait approximately 15 seconds for the RNAV traffic to clear the runway. This moves the situation from a tight squeeze between departing and arriving traffic, to a runway incursion. I recognize this, and tell my student to conduct the go around, and to side step to the right so that we have lateral separation between us and the departing traffic. While the student is doing this, I announce on the CTAF that we are going around and side stepping to the right. I then take control of the aircraft, and tell my student that we are going to stay below or level, and to the right of the departing aircraft, as to not enter its blind spot. I know that many pilots depart ZZZ to the west using a right crosswind turn, so I ask the departing aircraft, using its callsign, if they are going to do this. I receive no response. I explain to my student that if the departing traffic decides to make a right crosswind departure to the west while we are side stepped to the right, it would likely cause a collision or near miss. As soon as I finish explaining this, the departing traffic begins a right crosswind departure to the west without making a radio call. At this point, I am level with the departing aircraft, so I add full power and climb above, missing by about ~100ft vertically and ~100ft horizontally. Both aircraft proceeded normally after the near miss. I think the lack of communication between our two aircraft was a primary cause of the near miss. We should have been more persistent in our questioning of the other aircraft, and should have announced a second time where we are. The other aircraft could have listened to use when we announced our intentions the first time, and could have answered our question when we asked if they would be turning right. I also believe the decision on the part of the other aircraft to force a go around, and then to make a right crosswind departure from the pattern without making a radio call is another major factor. I don't believe any human factors affected anyone in our plane, I don't know about the other.

Synopsis

C172 flight Instructor with student reported departing traffic on runway forced a go around. The departing traffic turned toward the Instructor causing a NMAC and requiring evasive action.

Time / Day

Date : 202311

Local Time Of Day : 1201-1800

Place

Locale Reference.ATC Facility : ZZZ.TRACON

State Reference : US

Altitude.MSL.Single Value : 4500

Environment

Flight Conditions : VMC

Light : Daylight

Aircraft : 1

Reference : X

Aircraft Operator : Personal

Make Model Name : PA-23-250 Aztec

Crew Size.Number Of Crew : 2

Operating Under FAR Part : Part 91

Flight Plan : VFR

Mission : Training

Flight Phase : Descent

Route In Use : Direct

Aircraft : 2

Reference : Y

Aircraft Operator : Air Carrier

Make Model Name : Boeing Company Undifferentiated or Other Model

Crew Size.Number Of Crew : 2

Operating Under FAR Part : Part 121

Flight Plan : IFR

Mission : Passenger

Flight Phase : Initial Climb

Person

Location Of Person.Aircraft : X

Location In Aircraft : Flight Deck

Reporter Organization : Personal

Function.Flight Crew : Instructor

Function.Flight Crew : Pilot Flying

Qualification.Flight Crew : Flight Instructor

Qualification.Flight Crew : Instrument

Qualification.Flight Crew : Multiengine

Qualification.Flight Crew : Commercial

Experience.Flight Crew.Total : 870

Experience.Flight Crew.Last 90 Days : 266

Experience.Flight Crew.Type : 73

ASRS Report Number.Accession Number : 2053196

Human Factors : Situational Awareness

Events

Anomaly.ATC Issue : All Types
Anomaly.Conflict : NMAC
Anomaly.Deviation / Discrepancy - Procedural : Clearance
Detector.Person : Flight Crew
Miss Distance.Horizontal : 350
Miss Distance.Vertical : 100
When Detected : In-flight
Result.Flight Crew : Took Evasive Action

Assessments

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

Narrative: 1

Approach told [me] to maintain 4500 ft. VFR and that traffic was 9 o'clock. I was pilot flying a student back from a check ride. Student and I are both looking for the traffic, when an air carrier flight appears at 11 o'clock in a nose high attitude so close we can see the pilots. We take evasive action by diving to the right and it looked like the air carrier pilot had an RA to level off so we immediately climbed. Approach said I was supposed to stay at 4500 we were at 4500 before evasive action was taken. I called tower to discuss.

Synopsis

Flight Instructor with student reported a NMAC event during ATC assigned altitude with a large transport aircraft. The flight Instructor took evasive action to avoid a collision.

Time / Day

Date : 202311

Local Time Of Day : 0601-1200

Place

Locale Reference.Airport : ZZZ.Airport

State Reference : US

Relative Position.Distance.Nautical Miles : 20

Altitude.MSL.Single Value : 4500

Environment

Flight Conditions : VMC

Light : Daylight

Ceiling : CLR

Aircraft : 1

Reference : X

ATC / Advisory.Tower : ZZZ

Aircraft Operator : FBO

Make Model Name : PA-28 Cherokee/Archer/Dakota/Pillan/Warrior

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 : ZZZ

Aircraft : 2

Reference : Y

Make Model Name : Any Unknown or Unlisted Aircraft Manufacturer

Airspace.Class E : ZZZ

Component

Aircraft Component : Transponder

Aircraft Reference : X

Problem : Malfunctioning

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 : Flight Instructor

Qualification.Flight Crew : Commercial

Qualification.Flight Crew : Instrument

Experience.Flight Crew.Total : 349

Experience.Flight Crew.Last 90 Days : 62
Experience.Flight Crew.Type : 61
ASRS Report Number.Accession Number : 2052708
Human Factors : Situational Awareness

Events

Anomaly.Aircraft Equipment Problem : Less Severe
Anomaly.Conflict : NMAC
Detector.Person : Flight Crew
Miss Distance.Horizontal : 0
Miss Distance.Vertical : 200
When Detected : In-flight
Result.Flight Crew : Took Evasive Action

Assessments

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

Narrative: 1

I was scheduled for a discovery flight in a Piper Warrior. It was a clear VFR day. The passenger that I took up is a work colleague at the FBO, so I taxied across the field from the flight academy to pick her up. While taxiing over to the FBO, everything looked to be correct including the transponder. I picked up my work colleague for her discovery flight and was cleared to taxi to runway XX. Holding short of runway XX, I did my run-up and before takeoff checklist. I verified that my transponder was still on. Soon, I was cleared for takeoff. After about five minutes I was told that I was exiting the Delta, and that my frequency change was approved. I leveled off at 4,500 feet MSL. I continued to monitor tower and do the discovery flight. I was in a left turn, looking off my left wing, when I noticed a shadow above me. I immediately rolled out of my turn, seeing the jet in front of me. I was shaken up, because I had no visual of the traffic, until after their passage. I headed back to ZZZ. Upon entering ZZZ, the tower had asked if my transponder was on. I looked down and noticed that my transponder was not on. I tried turning my transponder on four times, by clicking the power button, and the transponder was not responding. By the time I had reached the approach end of runway XX, my transponder had turned back on. I landed safely with my passenger, taking her back to the FBO, where I parked and talked with the [jet pilots]. There were two pilots who had approached me, asking if I was the instructor of the aircraft located outside. I responded by telling them yes and explained that I did not see them until after they had passed me. The two pilots claimed that we were nearly 200 feet apart from each other, and that I was at fault for the Near Mid-Air Collision. The two pilots also claimed that they saw me before over flying me, but rather than correcting their course they decided to fly over me. I believe that this situation could have been avoided, if both myself and the other pilots performed a better visual, more consistent cross-scan. From this situation, I have learned to integrate the transponder into my cross-scan more. This mental checklist will prevent further occurrences, knowing that my transponder is always on.

Synopsis

PA28 Instructor reported transponder failure resulted in a NMAC by traffic overflying them.

Time / Day

Date : 202311

Local Time Of Day : 0601-1200

Place

Locale Reference.Airport : ZZZ.Airport

State Reference : US

Relative Position.Distance.Nautical Miles : 0

Altitude.MSL.Single Value : 425

Environment

Flight Conditions : VMC

Weather Elements / Visibility : Haze / Smoke

Weather Elements / Visibility.Visibility : 5

Light : Daylight

Ceiling.Single Value : 12000

Aircraft

Reference : X

ATC / Advisory.CTAF : ZZZ

Aircraft Operator : FBO

Make Model Name : Skyhawk 172/Cutlass 172

Crew Size.Number Of Crew : 2

Operating Under FAR Part : Part 91

Flight Plan : VFR

Mission : Training

Flight Phase : Landing

Route In Use : Visual Approach

Airspace.Class G : ZZZ

Person

Location Of Person.Aircraft : X

Location In Aircraft : Flight Deck

Reporter Organization : FBO

Function.Flight Crew : Instructor

Function.Flight Crew : Pilot Not Flying

Qualification.Flight Crew : Flight Instructor

Qualification.Flight Crew : Instrument

Qualification.Flight Crew : Commercial

Experience.Flight Crew.Last 90 Days : 25

Experience.Flight Crew.Type : 278

ASRS Report Number.Accession Number : 2052700

Human Factors : Training / Qualification

Events

Anomaly.Ground Incursion : Runway

Anomaly.Ground Event / Encounter : Loss Of Aircraft Control

Anomaly.Ground Event / Encounter : Object

Detector.Person : Flight Crew

When Detected : In-flight

Result.Flight Crew : Regained Aircraft Control

Assessments

Contributing Factors / Situations : Human Factors

Contributing Factors / Situations : Weather

Primary Problem : Human Factors

Narrative: 1

The student pilot had not flown in 6 months and wanted to get back into flying. The flight took off from ZZZ and into the local practice areas before flying to ZZZ1. The runway used was XX. The first approach was high, so a go-around was performed. The second approach looked better and everything looked good until the student leveled off too early and started to flare. The student realized the plane was too high and dipped the nose down. The plane landed hard on the nose and main gear and bounced. The plane bounced again when I told the student to go around. The student added power and immediately took it out when the plane started to veer to the left. The aircraft hit a runway edge light before stopping on the side of the runway. The student told me afterward that they panicked and took out the power because they thought of a video of a plane crashing into a hangar they had seen earlier. They thought that would happen if they left the power in. No injuries to the persons involved. No damage to the plane.

Synopsis

C172 flight Instructor reported student loss of control on landing which resulted in runway excursion and contact with a runway edge light.

Time / Day

Date : 202311

Local Time Of Day : 0601-1200

Place

Locale Reference.Airport : ZZZ.Airport

State Reference : US

Altitude.AGL.Single Value : 0

Environment

Weather Elements / Visibility.Visibility : 10

Light : Daylight

Aircraft

Reference : X

Aircraft Operator : Personal

Make Model Name : Skyhawk 172/Cutlass 172

Crew Size.Number Of Crew : 1

Operating Under FAR Part : Part 91

Flight Plan : VFR

Mission : Training

Flight Phase : Landing

Route In Use : Visual Approach

Person

Location Of Person.Aircraft : X

Location In Aircraft : Flight Deck

Reporter Organization : Personal

Function.Flight Crew : Pilot Flying

Function.Flight Crew : Single Pilot

Qualification.Flight Crew : Student

Experience.Flight Crew.Total : 49

Experience.Flight Crew.Last 90 Days : 31.1

Experience.Flight Crew.Type : 37.4

ASRS Report Number.Accession Number : 2052698

Human Factors : Troubleshooting

Human Factors : Training / Qualification

Events

Anomaly.Ground Excursion : Runway

Anomaly.Ground Event / Encounter : Ground Strike - Aircraft

Anomaly.Ground Event / Encounter : Loss Of Aircraft Control

Detector.Person : Flight Crew

When Detected : In-flight

Result.Aircraft : Aircraft Damaged

Assessments

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

Narrative: 1

I have 49 flight training hours, with 5.7 hours of training in crosswind conditions. I was flying my first solo cross country flight to ZZZ1 from ZZZ. I had my first solo on Day 0. I have a total of 2.9 solo hours. I have flown a cross country flight to ZZZ1 once before. I landed on Runway XX. The winds were from the direction 240 at 10 kts. I approached with the intention to go around if anything doesn't feel or look right. The crosswind was coming from the left side of the aircraft, so I used left aileron and right rudder. The approach felt perfect and I landed on centerline and aligned straight with the runway. As I cleaned up the flaps and applied throttle for a touch and go, the plane started going towards the left side of the runway, opposite of the wind direction, it appeared to be a weather vain. I kept the left wing down and applied full right rudder. I continued towards the left side of the runway, so once I was at the grass, I pulled the throttle to idle and eventually stopped in the grass to the left off of the runway. There were light prop strikes in the dirt, but no dents on the prop, nor damage anywhere else on the plane, nor to myself.

Synopsis

C172 student pilot reported loss of control on crosswind touch and go which resulted in runway excursion and prop strike.

Time / Day

Date : 202311
Local Time Of Day : 0601-1200

Place

Locale Reference.Airport : ZZZ.Airport
State Reference : US
Altitude.AGL.Single Value : 0

Environment

Flight Conditions : VMC
Weather Elements / Visibility.Visibility : 7
Light : Daylight
Ceiling.Single Value : 2000

Aircraft

Reference : X
ATC / Advisory.Tower : ZZZ
Aircraft Operator : Personal
Make Model Name : Decathlon 8KCAB
Crew Size.Number Of Crew : 2
Operating Under FAR Part : Part 91
Flight Plan : VFR
Mission : Training
Flight Phase : Landing
Route In Use : Visual Approach
Airspace.Class D : ZZZ

Person

Location Of Person.Aircraft : X
Location In Aircraft : Flight Deck
Reporter Organization : Personal
Function.Flight Crew : Instructor
Function.Flight Crew : Pilot Not Flying
Qualification.Flight Crew : Commercial
Qualification.Flight Crew : Instrument
Qualification.Flight Crew : Multiengine
Qualification.Flight Crew : Flight Instructor
Experience.Flight Crew.Total : 1100
Experience.Flight Crew.Last 90 Days : 180
Experience.Flight Crew.Type : 270
ASRS Report Number.Accession Number : 2052693
Human Factors : Training / Qualification
Human Factors : Time Pressure

Events

Anomaly.Ground Excursion : Runway
Anomaly.Ground Event / Encounter : Loss Of Aircraft Control
Detector.Person : Flight Crew

When Detected : In-flight

Result.Flight Crew : Regained Aircraft Control

Assessments

Contributing Factors / Situations : Human Factors

Primary Problem : Human Factors

Narrative: 1

Preflight was normal, conducted normal training flight with student, approach to landing was normal, I had my student do the landing and they fully deflected the rudder upon touchdown, we started swerving off the runway and I took over controls but the student did not let off the rudder until we were in the grass. I was able to regain control of the aircraft and we were able to taxi back onto the runway with tower clearance and taxi back to the school. No aircraft damage or airport property damage.

Synopsis

8KCAB Instructor reported student applied full rudder deflection on landing resulted in loss of aircraft control and runway excursion.

Time / Day

Date : 202311

Local Time Of Day : 1201-1800

Place

Locale Reference.ATC Facility : ZZZ.ARTCC

State Reference : US

Altitude.MSL.Single Value : 4000

Environment

Flight Conditions : VMC

Weather Elements / Visibility.Visibility : 10

Light : Daylight

Aircraft

Reference : X

ATC / Advisory.Tower : ZZZ

Aircraft Operator : Personal

Make Model Name : Skyhawk 172/Cutlass 172

Crew Size.Number Of Crew : 1

Operating Under FAR Part : Part 91

Flight Plan : VFR

Mission : Training

Flight Phase : Cruise

Airspace.Class E : ZZZ

Component

Aircraft Component : Electrical Power

Aircraft Reference : X

Problem : Failed

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 : Student

Experience.Flight Crew.Total : 32.7

Experience.Flight Crew.Last 90 Days : 32.7

Experience.Flight Crew.Type : 32.7

ASRS Report Number.Accession Number : 2052667

Human Factors : Distraction

Human Factors : Time Pressure

Human Factors : Troubleshooting

Human Factors : Workload

Human Factors : Situational Awareness

Events

Anomaly.Aircraft Equipment Problem : Critical
Detector.Person : Flight Crew
When Detected : In-flight
Result.Flight Crew : Overcame Equipment Problem
Result.Flight Crew : Diverted

Assessments

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

Narrative: 1

I was approximately 10 miles East of ZZZ on my way to ZZZ1 when I had an electrical failure. I then went through my emergency procedures checklist. It did not fix the discharging issue so I ran through the checklist once more to ensure I was doing everything properly. Once I realized the issue was not going to be resolved I called 1800WXBrief as I was unable to communicate with ZZZ. I stayed on the phone with WX Brief to get ATC clearance to land and talked to him until the airplane was stopped. Following parking the aircraft I called ZZZ tower to debrief the situation.

Synopsis

A student pilot in a C172 reported a complete electrical failure and divert to a nearby airport.

Time / Day

Date : 202311

Local Time Of Day : 1201-1800

Place

Locale Reference.Airport : ZZZ.Airport

State Reference : US

Altitude.MSL.Single Value : 1400

Environment

Flight Conditions : Marginal

Weather Elements / Visibility : Rain

Weather Elements / Visibility.Visibility : 7

Light : Daylight

Ceiling.Single Value : 1900

Aircraft : 1

Reference : X

ATC / Advisory.Tower : ZZZ

Aircraft Operator : Personal

Make Model Name : Cardinal 177/177RG

Crew Size.Number Of Crew : 1

Operating Under FAR Part : Part 91

Flight Plan : VFR

Mission : Training

Flight Phase : Climb

Airspace.Class D : ZZZ

Aircraft : 2

Reference : Y

ATC / Advisory.Tower : ZZZ

Aircraft Operator : Personal

Make Model Name : Skyhawk 172/Cutlass 172

Crew Size.Number Of Crew : 1

Operating Under FAR Part : Part 91

Flight Plan : VFR

Mission : Training

Flight Phase : Final Approach

Airspace.Class D : ZZZ

Person

Location Of Person.Aircraft : X

Location In Aircraft : Flight Deck

Reporter Organization : Personal

Function.Flight Crew : Pilot Flying

Function.Flight Crew : Single Pilot

Qualification.Flight Crew : Private

Experience.Flight Crew.Total : 238.8

Experience.Flight Crew.Last 90 Days : 45.6

Experience.Flight Crew.Type : 108.5
ASRS Report Number.Accession Number : 2052630
Human Factors : Communication Breakdown
Human Factors : Confusion
Human Factors : Distraction
Human Factors : Situational Awareness
Human Factors : Time Pressure
Human Factors : Fatigue
Communication Breakdown.Party1 : Flight Crew
Communication Breakdown.Party2 : ATC

Events

Anomaly.ATC Issue : All Types
Anomaly.Conflict : Ground Conflict, Less Severe
Anomaly.Conflict : NMAC
Anomaly.Deviation / Discrepancy - Procedural : Published Material / Policy
Detector.Person : Flight Crew
Miss Distance.Horizontal : 500
Miss Distance.Vertical : 200
When Detected : In-flight
Result.Flight Crew : Took Evasive Action
Result.Flight Crew : Requested ATC Assistance / Clarification

Assessments

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

Narrative: 1

Short take. The spacing between 2 aircraft in the same pattern changed, and then both aircraft independently altered patterns slightly to converge, followed by surprise to one or both pilots. ATC was unaware or unreactive. Evasive action taken by one aircraft brought the planes even closer. The following is primarily from recollection, aided by reconstruction via tracking sites. 1800 ft. ceiling was mainly conducive to pattern work, but an improvement over earlier, and toward mid-afternoon a number of planes, especially from nearby flight school. Possibly also from another flight school, airplanes were getting airborne. During runup my windshield had no raindrops. Wind with information juliet was 060 at 5 kts, barometric 29.62. Per ATIS I advised of intent to do touch and goes. While taxiing to runway, there was one light shower. I saw one C172, Aircraft Z on a taxiway (1 or 2). Another C172 Aircraft A, was holding short for XXL at 3. Another C172 Aircraft B was in LP off XXL. I was ready at 4 for XXL before Aircraft A, and was cleared for touch and go and told to make right traffic for XXR. I repeated and also visually checked XXR for any planes waiting or about to takeoff, saw none. While I was on climb out, ATC asked if I saw traffic to my right. I looked and saw a high wing plane southbound, less than 1 mile off my right wing and above. I advised traffic in sight. ATC instructed to follow that traffic, and cleared me for touch-and-go on XXR. All good. I know now that the traffic on downwind was Aircraft Y, another C172, and on its 12th right pattern on XXR, and had been flying patterns for an hour. Wind at pattern altitude was a little stronger and more easterly than at surface, making for fast downwinds and push toward overshoots on turn to final. On second climb out, ATC again asked if I saw traffic. I again saw a plane southbound and above, approximately 1 mile off my right wing, somewhat closer than on

the first takeoff because I was on XXR instead of XXL, and I believe a little more behind me. This was again Aircraft Y. I advised traffic in sight and was cleared for touch and go XXR, #2. Both these clearances occurred while I was still on the upwind climbout. On both of the first two takeoffs the opposite-leg aircraft, Aircraft Y, was well past my right 90° in opposite direction before I turned crosswind. We were both doing the circuit in about 6 minutes. On the downwind for my second pattern, there was also parallel traffic. Then ATC asked me if I saw the traffic turning base ahead. I confirmed, and slightly extended my downwind, turning base only after I saw an aircraft turning on or on final. On final, I was consciously aiming to touch down on the 1000 ft. markers with full flaps, and did so. As I went into ground effect I looked down the runway and saw no other planes. After touching down, I had put carb heat back off, raised flaps, and opened cowl flaps, then put 10° flaps back in and was accelerating when ATC said to "exit taxiway and contact Ground." It was unclear whether ATC gave me another plane's instruction or had forgotten clearing me for touch and go and was thinking I was full-stop. I reminded I was on a touch and go, and delayed rotation a few seconds, while I scanned to make sure there wasn't another plane on my runway or at an exit. ATC was silent. I completed rotation and took off. Moments later, in upwind climb-out, ATC once again cleared me for touch and go on XXR, and may also have said, "following traffic." Exact instruction I don't recall. I repeated "cleared for touch and go XXR" and think I also said "looking for traffic", and began scanning for traffic in the same location as on the 2 previous patterns, i.e., southbound off my right wing and slightly behind and to my South. This time I did not see a plane in the downwind either off my wing or behind me. I was still climbing, obscuring visual ahead or ahead right. I feel like I saw SOME southbound plane off in the distance to the East, farther than on the previous 2 patterns, possibly some other plane transitioning East of the airfield. But that may be a mis-recollection. I know I concluded that the plane which had been 2 legs ahead and opposite me on the 2 previous patterns (Aircraft Y), had gotten further ahead of me during the hesitation on the runway, and I planned to look again for it on crosswind. While taking off it looked like clouds ahead, just North of the airfield, had lowered or were precipitating. I decided not to extend, and to turn at or before 1500 ft. so as to maintain VFR below the deck, and that this would be my last pattern and I would so advise ATC on downwind. I retracted flaps and began turn to crosswind just after I crossed [the road], checking airspeed for the fairly tight climbing turn, and also looking to my right for that traffic on the downwind. I was extremely surprised, leveling out from turn to crosswind, to see an aircraft less than 300 ft. above and approximately 1/4 mi. to 1/2 mi. ahead and to my LEFT, moving L to R at pattern altitude, i.e., converging, from my left, on a nearly perpendicular path toward where I was headed. My initial thought was that this was a third plane, not the traffic I had been looking for, and I was surprised that ATC hadn't advised me of it, and wondered if ATC even knew about it. The other plane did not seem to be deviating from its path and also seemed to be flying extremely slow. I pulled throttle back and slightly back pressured and radioed that I was "slowing for traffic," and I started to level off so as not to ascend to the other aircraft's altitude. I heard no response from Tower or the other aircraft. The other plane passed ahead of and above me, and then as I crossed under its recent path, it was above and behind my right wing and no longer visible. I waited several more seconds to get past its flight path, then began my turn to downwind, believing that by the time I turned, the other plane would be sufficiently ahead of me, and I could slow up or otherwise take measures to give it spacing. Upon finishing my turn, I was surprised to see that the other aircraft was not very far ahead at all, approx. 200 ft. above, possibly 200 ft. ahead, and 700 ft. to my right, and instead of pulling ahead, it still seemed to be flying slowly, and I was gaining on it from its left. Despite throttling back, my speed was high due to leveling off and then picking up a tailwind. I decided I would divert to the SE. As I was about to announce that, the other plane radioed ATC that there was an aircraft "less than five hundred feet" off its left wing. Both of us then advised ATC that we were going to turn to the left. I don't recall in which

order. I couldn't process why a pilot that thought they were already within 500 ft. of a plane to its left was going to turn left, toward my path, instead of continuing on, when they now had the right of way. I radioed to clarify that I was turning to the SE. I descended further to give even more clearance since it seemed they were now going to cross above me. If we came within 500 ft. it was at this point. Other pilot advised ATC that they intended to do [unintelligible], and ATC said, "OK, Aircraft X, now YOU'RE #1 for touch-and-go on XXR." By this time I was more than a mile from the airport, and heading diagonally away from it, but I confirmed, and corrected that this would be a full stop, not touch and go. ATC then cleared for full stop. I asked where the other plane was and got no answer. I asked for confirm that I was cleared to land on XXR and got an affirmative, and read that back again. While I was on base, ATC advised either another plane or all traffic generally that it seemed like the clouds were coming down and visibility was decreasing. I determined to get off at taxiway 1 rather than 2 for more spacing since I assumed there was a plane on my tail. ATC asked "Aircraft X what are your intentions" and I advised taxi to hangar. Was told exit 1 and contact Ground. Subsequently I heard a plane, presumably Aircraft Y now following me, advise that they were going around. First, I am not sure that the aircraft were ever within 500 ft. If that occurred, however, I think it was only after Aircraft Y turned to the left on downwind, toward my flight path. And we both had good visual then. But in any case, it was closer than typical in the pattern, we were momentarily in the same leg, and the situation warranted corrective action, which both pilots took. Both pilots also advised ATC of the situation as it developed. However, the situation was one that should be avoided. A number of factors combined to create it, as follows. Aircraft Y, after landing on its 13th pattern, took off before I landed, but for reason unknown to me took longer to take off than on previous patterns, decreasing the distance at which I was following. I was unaware at the time of the decreased distance, especially because of focus on the spot landing I was practicing, followed by the minor distraction of ATC forgetting they had cleared me for touch-and-go. Aircraft Y then took a relatively longer upwind and at a relatively slow speed for upwind, crosswind, and start of downwind, as slow as 66 kts ground speed. As a result, the relative position we had been in for the two previous laps changed and when I was in my takeoff climb, Aircraft Y was not 2 complete legs ahead as it had been, and was not visible during my climb. I was continuing on my most recent situational awareness, that there was a 172 two legs ahead of me. Upon not seeing the plane off my right wing, or possibly even seeing a different, further-out plane, my first interpretation of that new data was that Aircraft Y had gotten further ahead during the minor runway misunderstanding. The conclusion was logical but incorrect. My third pattern was not that different than my second, and you might not think a plane that takes off 2 minutes after another would catch the lead plane in the same pattern, but I took a quick crosswind after a fast upwind; meanwhile the 172 was taking a long upwind, and at a more leisurely speed on cross and downwind. This put our paths on an intersection. I do not know if Aircraft Y ever saw me on the runway, taking off, or turning crosswind. I did have all my lights including strobes on the entire flight. Because Aircraft Y did not vary path when we were converging and I was to its right, I assume it did not, but possibly the pilot was startled and froze. Once I saw the 172, it was not threatening, but startling. The challenge was to figure what it was doing there, and its intentions. At first I didn't think it was the same plane ahead of me on the two previous patterns. I processed it as a new arrival entering downwind. I chose slowing and dipping below its path as quickest path to easily avoid conflict while not surprising some other plane behind me in the pattern. I also advised by radio that I was slowing to avoid traffic. I assumed that I'd emerge from my turn downwind considerably behind the 172 and would then delay my own downwind to let it get further ahead. In retrospect, I may have already turned slightly at the moment I first saw it, and combined with the wind this put me further South than I expected. Also, my 177 just got through the turn very quickly. Once I'd completed the turn and saw the 172 ahead and to my right, I expected that, since it had the right of way, it would simply

proceed ahead and I would just lag behind. It did not behave as expected. If Aircraft Y heard my radio call but did not see me until on their left, or saw me fly (from their perspective) under and then around and behind them, they may have been startled and thought I was trying to overtake them, or doing who knows what. Their thought, get out of the pattern, was the same as mine at that point. It may not have occurred to them that they had the right of way and I planned to yield. So their maneuver led to the second criss-cross, which brought the planes closer together. We got no guidance from ATC during this. I heard nothing between the time I was cleared for touch and go while on climb, to when I was advised I was now the new #1 to land. What could have been done differently or could be done to prevent recurrences. ATC could have advised me on my climb/take-off as to location of Aircraft Y. "Skyhawk ahead of you on crosswind." "Traffic at your 2 o'clock, advise when in sight." If I had been told of that, the situation would not have occurred. ATC. Often the following aircraft is told to extend its downwind, until directed or until traffic has passed. If I had been told to do that, the situation would not have occurred. ATC. On the 2 previous patterns I had specifically been asked if I saw the other traffic, and although I was cleared while on upwind/climb, was not cleared until then. ATC on this 3rd (for me) pattern, I think didn't, but actually said "Cleared for touch-and-go" "following traffic" and I'm not sure that of that. This conveys to the following pilot that conditions are that they should be good to land if all continues, though there will be a preceding landing. ATC. When I advised I was slowing for traffic, ATC could have advised me to continue East and then make a left 360°, which would have restored spacing. Instead, the two planes were left to their own devices. ATC. When Aircraft Y advised they were turning left, ATC could have countermanded that, and instead told ME to slow up, divert East, or descend (all of which I was already doing) and told Aircraft Y to continue on its downwind. That would have avoided the second, closer criss-cross. ATC. When 2 or more planes are working the same pattern, it is helpful if they're all told that, to establish a base level of situational awareness and lookout. Otherwise, each pattern is an individual event. Is other traffic a pattern buddy or a new arrival? Pilot ears tend to be attuned mainly to their own call-sign and pay less attention to instructions not directed to them, although an ear is always out. Me. When mistakenly told to exit after pattern #2, I could have said "Unable" and then asked confirm of cleared for the go, prompting ATC to maybe scan the situation ahead of me and give a slightly different instruction. Me. When mistakenly told to exit after pattern #2, I could have simply repeated, exited, and then asked why. Awkward and time-wasting, but would have avoided the situation. Me. When I didn't see traffic after being cleared on climb, I could have immediately reported negative visual contact. I didn't because the lack of specific location to look combined with the clearance and last sense that the other plane was a full 2 legs ahead lulled me into false security that it was well on its downwind, and I'd spot it in a few. Me. Although ATC could have done things differently, ATC is human, humans (and machines) make mistakes, and it is ultimately the pilot's responsibility to look out for traffic. I could have dipped my nose on climbout to scan for planes. Also, normally, even in the pattern, I have traffic on my iPad via Foreflight. Here it seemingly froze. That should have triggered being more defensive. Me. On making the downwind turn to find another Cessna in close formation, I could have immediately turned hard left to more strongly signal evasive action, so that the 172 didn't feel compelled to. I didn't because I was avoiding impulsive moves in pattern. Me. I could have been more specific in advising of seeing Aircraft Y ahead. Aircraft Y. Doing 15 patterns is a lot of cumulative workload. Aircraft Y: Lights on? I never saw 'em. Doesn't cost much to increase visibility. Aircraft Y. More than one CFI stressed to me to keep speed up in the pattern, especially when there are other planes. A more typical upwind, crosswind and early downwind speed on his pattern #14 would have kept the 172 more ahead of me, preventing the occurrence. Aircraft Y. When I was to the right and had the right of way, they didn't yield. When they were on the right and had the right of way, they didn't take it.

Synopsis

C177 pilot reported a NMAC with another aircraft practicing in the Tower pattern.

Time / Day

Date : 202311

Local Time Of Day : 0601-1200

Place

Locale Reference.Airport : ZZZ.Airport

State Reference : US

Relative Position.Distance.Nautical Miles : 1

Altitude.MSL.Single Value : 2000

Environment

Weather Elements / Visibility.Visibility : 10

Light : Daylight

Ceiling.Single Value : 12000

Aircraft : 1

Reference : X

ATC / Advisory.CTAF : ZZZ

Aircraft Operator : FBO

Make Model Name : PA-28 Cherokee/Archer/Dakota/Pillan/Warrior

Crew Size.Number Of Crew : 1

Operating Under FAR Part : Part 91

Flight Plan : VFR

Mission : Training

Flight Phase : Initial Approach

Route In Use : Visual Approach

Airspace.Class E : ZZZ

Airspace.Class G : ZZZ

Aircraft : 2

Reference : Y

ATC / Advisory.CTAF : ZZZ

Aircraft Operator : Personal

Make Model Name : RV-9

Crew Size.Number Of Crew : 1

Operating Under FAR Part : Part 91

Flight Plan : VFR

Flight Phase : Initial Approach

Route In Use : Visual Approach

Airspace.Class E : ZZZ

Airspace.Class G : ZZZ

Person

Location Of Person.Aircraft : X

Location In Aircraft : Flight Deck

Reporter Organization : FBO

Function.Flight Crew : Instructor

Function.Flight Crew : Pilot Not Flying

Qualification.Flight Crew : Multiengine

Qualification.Flight Crew : Flight Instructor
Qualification.Flight Crew : Commercial
Qualification.Flight Crew : Instrument
Experience.Flight Crew.Total : 600
Experience.Flight Crew.Last 90 Days : 100
Experience.Flight Crew.Type : 600
ASRS Report Number.Accession Number : 2052605
Human Factors : Communication Breakdown
Human Factors : Situational Awareness
Human Factors : Time Pressure
Human Factors : Other / Unknown
Human Factors : Distraction
Communication Breakdown.Party1 : Flight Crew
Communication Breakdown.Party2 : Flight Crew

Events

Anomaly.Conflict : NMAC
Anomaly.Deviation / Discrepancy - Procedural : Published Material / Policy
Detector.Person : Flight Crew
Miss Distance.Horizontal : 0
Miss Distance.Vertical : 300
When Detected : In-flight
Result.Flight Crew : Took Evasive Action

Assessments

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

Narrative: 1

When entering the airport traffic pattern for ZZZ from the east, I (instructor on board) called standard distance and direction from traffic pattern. Advised traffic we were east of the field on a 45 entry for the left downwind, and continued making calls as advised in the AIM (Aeronautical Information Manual). RV traffic called with unclear and confused sounding position reports stating only that he was RV traffic and crossing midfield for the left downwind runway XX. Given the information provided the student and I were scanning across the airport for traffic approaching from the west to cross the midfield and enter our downwind as stated. We called established at midfield as the RV came from behind us contrary to his position report and crossed overhead with minimal separation, visually within 300 ft. The aircraft banked to his right after crossing over and did not make a call. I called him on CTAF that he got too close to us and asked his intentions. He was combative on frequency and immediately left the area to the east. We attempted to continue with the training flight, completing 1 touch and go and one full stop in the pattern before deciding to come into the FBO and file a report while it was still fresh in our minds. To summarize: We called at least 6 times without full report "ZZZ traffic Aircraft X X miles to the EAST setting up for/established on the 45 for left downwind runway XX." We had already called traffic in the pattern in sight and informed we would follow behind. The offending traffic made incorrect and confusing calls including nothing but the aircraft type, tail number, and "will cross midfield for [runway] XX." Pilot was combative when contacted and left the area promptly. This issue could be easily resolved with proper emphasis on position reporting and retraining. I believe complacency was the primary human factor in this incident. As a pilot and instructor the actions I could have taken to avoid or correct the situation that I will put more emphasis on in the future: Made contact with the pilot and asked for

clarification on his confusing/ unclear calls. Asked to discuss on the ground instead of on frequency, this was an unprofessional argument to have on FREQ as an instructor. I have talked to the student about how to handle this situation better than I did should he encounter something similar in the future.

Synopsis

PA-28 Instructor with trainee reported a NMAC at a non-towered airport when the other aircraft made confusing position reports and then appeared in the traffic pattern 300 feet above his aircraft.

Time / Day

Date : 202311

Local Time Of Day : 1201-1800

Place

Locale Reference.Airport : SHN.Airport

State Reference : WA

Relative Position.Distance.Nautical Miles : 1

Altitude.MSL.Single Value : 500

Environment

Flight Conditions : VMC

Weather Elements / Visibility.Visibility : 10

Light : Daylight

Aircraft : 1

Reference : X

ATC / Advisory.CTAF : SHN

Aircraft Operator : FBO

Make Model Name : Small Aircraft

Crew Size.Number Of Crew : 1

Operating Under FAR Part : Part 91

Flight Plan : VFR

Mission : Training

Flight Phase : Final Approach

Route In Use : Visual Approach

Airspace.Class G : SHN

Aircraft : 2

Reference : Y

Aircraft Operator : Military

Make Model Name : Helicopter

Crew Size.Number Of Crew : 1

Mission : Training

Flight Phase : Final Approach

Airspace.Class G : SHN

Person

Location Of Person.Aircraft : X

Location In Aircraft : Flight Deck

Reporter Organization : FBO

Function.Flight Crew : Pilot Flying

Function.Flight Crew : Single Pilot

Qualification.Flight Crew : Student

Experience.Flight Crew.Total : 80

Experience.Flight Crew.Last 90 Days : 25

Experience.Flight Crew.Type : 80

ASRS Report Number.Accession Number : 2051519

Human Factors : Communication Breakdown

Human Factors : Distraction
Human Factors : Time Pressure
Human Factors : Other / Unknown
Human Factors : Situational Awareness
Communication Breakdown.Party1 : Flight Crew
Communication Breakdown.Party2 : Flight Crew

Events

Anomaly.Conflict : NMAC
Anomaly.Deviation / Discrepancy - Procedural : Published Material / Policy
Detector.Person : Flight Crew
Miss Distance.Horizontal : 200
Miss Distance.Vertical : 0
When Detected : In-flight
Result.Flight Crew : Took Evasive Action

Assessments

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

Narrative: 1

When entering 45 for Runway 23, visually spotted the helicopter sitting on Runway 23, we self announced on a 5 mile 45, flew the downwind which is approximately when they took off, and we turned base announcing each leg, when on short final, we announced final and approximately 15 seconds after the helicopter cut us off from our left crossing approximately 150-200 ft. in front of us, at which point we made the decision to go around, and left the area.

Synopsis

GA pilot reported a NMAC at SHN non-towered airport. The student states the other non communicating aircraft, a helicopter, cut off the student's final approach.

Time / Day

Date : 202311

Local Time Of Day : 1801-2400

Place

Locale Reference.Airport : MBT.Airport

State Reference : TN

Altitude.MSL.Single Value : 500

Aircraft : 1

Reference : X

ATC / Advisory.TRACON : BNA

Aircraft Operator : FBO

Make Model Name : Small Aircraft

Crew Size.Number Of Crew : 2

Operating Under FAR Part : Part 91

Flight Plan : VFR

Mission : Training

Flight Phase : Final Approach

Route In Use : Visual Approach

Airspace.Class G : MBT

Aircraft : 2

Reference : Y

Make Model Name : UAV: Unpiloted Aerial Vehicle

Crew Size.Number Of Crew : 1

Airspace.Class G : MBT

Flying In / Near / Over (UAS) : Airport / Aerodrome / Heliport

Flying In / Near / Over (UAS) : Aircraft / UAS

Person

Location Of Person.Aircraft : X

Location In Aircraft : Flight Deck

Reporter Organization : FBO

Function.Flight Crew : Instructor

Qualification.Flight Crew : Flight Instructor

Qualification.Flight Crew : Instrument

Qualification.Flight Crew : Multiengine

Qualification.Flight Crew : Commercial

ASRS Report Number.Accession Number : 2051517

Human Factors : Training / Qualification

Human Factors : Situational Awareness

Events

Anomaly.Airspace Violation : All Types

Anomaly.Conflict : Airborne Conflict

Anomaly.Deviation / Discrepancy - Procedural : Unauthorized Flight Operations (UAS)

Anomaly.Deviation / Discrepancy - Procedural : Published Material / Policy

Anomaly.Deviation / Discrepancy - Procedural : FAR

Detector.Person : Flight Crew

When Detected : In-flight

Result.Flight Crew : Requested ATC Assistance / Clarification

Assessments

Contributing Factors / Situations : Human Factors

Primary Problem : Human Factors

Narrative: 1

My student and I were flying a pattern to land runway 18 at MBT. When turning base for 18 I saw a singular flashing red light on the runway over the numbers for 18 and it occurred to me that this was a drone. At this moment the red light or drone was moving laterally across the runway and then just stopped there in the middle of the runway but still near the numbers if not over them. We turned final and the flashing red light started to move down the runway, gaining speed and altitude as it did so and by the time we landed the red light was directly south of the field maybe 1 mile and 500 ft. above the ground. After clearing the runway we came to a stop on the taxi way to do the after landing checklist and I looked south of the field and I could still see the flashing red light directly south of the field and centered on the departure leg for 18 maybe what looked to be 500 ft.-1,000 ft. above the ground and a mile or two south of the runway. I alerted traffic that was taking off and traffic on final for 18 after me. The traffic on final reported the word of what I had seen to Nashville Approach. For this event, I was in Aircraft X. Additionally, the drone did not appear to have any other lights on it.

Synopsis

Flight Instructor with student reported a UAS hovering over the runway while they were on final approach. The UAS moved as they got closer but stayed within the vicinity of the airport.

Time / Day

Date : 202311

Local Time Of Day : 0601-1200

Place

Locale Reference.Airport : ZZZ.Airport

State Reference : US

Altitude.AGL.Single Value : 0

Environment

Ceiling.Single Value : 20000

Aircraft

Reference : X

ATC / Advisory.Tower : ZZZ

Aircraft Operator : Personal

Make Model Name : Skyhawk 172/Cutlass 172

Crew Size.Number Of Crew : 1

Operating Under FAR Part : Part 91

Flight Plan : VFR

Mission : Training

Flight Phase : Landing

Route In Use : Visual Approach

Airspace.Class C : ZZZ

Component

Aircraft Component : Rudder Pedal

Aircraft Reference : X

Problem : Improperly Operated

Person : 1

Location Of Person.Aircraft : X

Location In Aircraft : Flight Deck

Reporter Organization : Personal

Function.Flight Crew : Pilot Flying

Function.Flight Crew : Single Pilot

Qualification.Flight Crew : Student

Experience.Flight Crew.Total : 14

Experience.Flight Crew.Last 90 Days : 14

Experience.Flight Crew.Type : 14

ASRS Report Number.Accession Number : 2051179

Human Factors : Confusion

Human Factors : Time Pressure

Human Factors : Workload

Human Factors : Situational Awareness

Person : 2

Location Of Person : Gate / Ramp / Line
Function.Flight Crew : Pilot Not Flying
Function.Flight Crew : Instructor
Qualification.Flight Crew : Flight Instructor
Qualification.Flight Crew : Instrument
Qualification.Flight Crew : Commercial
Experience.Flight Crew.Total : 1153
Experience.Flight Crew.Last 90 Days : 280
Experience.Flight Crew.Type : 539
ASRS Report Number.Accession Number : 2051163
Human Factors : Other / Unknown
Human Factors : Troubleshooting

Events

Anomaly.Ground Excursion : Runway
Anomaly.Ground Event / Encounter : Loss Of Aircraft Control
Anomaly.Ground Event / Encounter : Object
Detector.Person : Flight Crew
When Detected : In-flight
Result.Aircraft : Aircraft Damaged

Assessments

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

Narrative: 1

I was making my third approach onto runway XXL while doing pattern work for my second student solo. The approach was good and stable, the glide slope was good, and speed was around 65-68kts over the numbers. Landed slightly off the centerline to the left, the right wheel was still across the centerline. I then raised my flaps and added power to take off again to re-enter the pattern. Almost as soon as I added power the plane began to shift significantly to the left. I immediately started putting in the right rudder as I always do to counteract the left-turning tendency of the plane. The plane however continued to shift left and I continued to put in more and more right rudder. The amount of right rudder needed to keep the plane straight was much more than normal. I avoided slamming on the right rudder in order to prevent an overcorrection, which I felt would have created a much worse situation. After trying to correct the path of the plane it became obvious that the plane had reached a point of no return and was going to go off the left side of the runway. Upon reaching this point I immediately pulled out all power and started pressing heavily on the breaks. The plane skidded off the runway and began running through the grass. After the plane went into the grass it started to head towards taxiway 1. While crossing 1 I hit multiple taxi lights and almost hit the taxiway 1 sign but managed to avoid it. After the plane crossed 1 it once again went into the grass while still continuing the left turn. At this point, the plane had slowed significantly. I came off the grass onto taxiway 2 and finally came to rest in the middle of taxiway 3. After sitting on taxiway 3 for about 15-30 seconds to collect my thoughts and to let my adrenaline die down slightly, I called the tower to let them know that I was okay and that the plane was still operable. Tower had me taxi back to the ramp where I parked and shut down. After the shutdown, I got out and examined the plane. There were two considerable dents in the left strut leading down to the left wheel. There was also a considerable dent in the propeller. The right wheel cowling was also loose. No other exterior damage was observed. Reflecting on the events I don't

understand what went wrong. I don't dismiss that this could have easily been something I did/didn't do. However, after doing over 3 dozen landings with my instructor and 5 landings solo. I didn't do anything different from the other landings I had made. The only thing that got my attention was the landing before the accident, on my second approach. The plane also had a fairly sharp turn to the left. It was enough to throw me to the left of the centerline completely, but I managed to keep it on the runway. I even verbally commented to myself about it as I took off. I should have paid more attention to that and in hindsight, aborted takeoff. Part of me thinks that I should have put in more right rudder, but looking back, I think if I had input any more right rudder I would have overcorrected. If I had overcorrected to the right, it would have put me on a collision course with possible construction crews who were working that day, as well as multiple parked planes, which could have made the outcome much worse.

Narrative: 2

Supervised Student Solo - Instructor (myself) not in airplane. Student has been trained per part 61.87. Has demonstrated on multiple different training flights the ability to successfully takeoff and land the airplane without any instructor assistance. While solo, the student landed back main wheels and lowered nose smooth and correct. Upon the rollout, flaps were retracted and power was applied. After the power was increased, the plane then veered to the left of the runway clipping a runway light and making contact with the propeller. No injuries occurred during the incident. After reviewing photos from the Airport Authority showing skid marks across the runway, it looks as if the student had made the decision to press the top left rudder pedal, engaging the left differential braking which caused the airplane to veer left. As the recommending instructor, I believe an emphasis on light control inputs, as well as feet off the breaks or "heels on the floor" should be re-taught for all ground operations as well as airport/runway awareness.

Synopsis

Instructor pilot and trainee reported a runway excursion during the trainee's solo touch and go training. The trainee lost control after applying power, exited the pavement, hit taxi lights and dented the aircraft in several places.

Time / Day

Date : 202311

Local Time Of Day : 0601-1200

Place

Locale Reference.ATC Facility : ZZZ.Tower

State Reference : US

Altitude.MSL.Single Value : 6000

Environment

Flight Conditions : VMC

Light : Daylight

Aircraft : 1

Reference : X

ATC / Advisory.Tower : ZZZ

Aircraft Operator : Corporate

Make Model Name : Skyhawk 172/Cutlass 172

Crew Size.Number Of Crew : 2

Operating Under FAR Part : Part 91

Flight Plan : VFR

Mission : Training

Flight Phase : Initial Approach

Airspace.Class D : ZZZ

Aircraft : 2

Reference : Y

ATC / Advisory.Tower : ZZZ

Make Model Name : Any Unknown or Unlisted Aircraft Manufacturer

Crew Size.Number Of Crew : 1

Flight Phase : Final Approach

Airspace.Class D : ZZZ

Person

Location Of Person.Aircraft : X

Location In Aircraft : Flight Deck

Reporter Organization : Corporate

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 : 670

Experience.Flight Crew.Last 90 Days : 50

Experience.Flight Crew.Type : 670

ASRS Report Number.Accession Number : 2050720

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.Conflict : NMAC
Anomaly.Deviation - Track / Heading : All Types
Anomaly.Deviation / Discrepancy - Procedural : Clearance
Anomaly.Deviation / Discrepancy - Procedural : Published Material / Policy
Detector.Person : Air Traffic Control
Miss Distance.Horizontal : 200
Miss Distance.Vertical : 0
When Detected : In-flight
Result.Flight Crew : Took Evasive Action
Result.Flight Crew : Requested ATC Assistance / Clarification
Result.Air Traffic Control : Separated Traffic
Result.Air Traffic Control : Issued New Clearance

Assessments

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

Narrative: 1

The flight was on downwind Runway XXR at ZZZ. Pilot thought the instruction was to follow the traffic straight ahead after some laps with similar instruction from ATC, but the instruction was to maintain downwind. The pilot began base turn after abeam with the traffic following and caused possible near miss to other aircraft on final and got instruction from ATC to fly away from the other aircraft and back to downwind.

Synopsis

A flight Instructor reported they caused a NMAC when they turned base leg instead of staying on downwind as instructed by Tower.

Time / Day

Date : 202311

Local Time Of Day : 0601-1200

Place

Locale Reference.ATC Facility : ZZZ.ARTCC

State Reference : US

Altitude.MSL.Single Value : 1500

Environment

Weather Elements / Visibility.Visibility : 20

Aircraft : 1

Reference : X

Aircraft Operator : FBO

Make Model Name : Skyhawk 172/Cutlass 172

Crew Size.Number Of Crew : 2

Operating Under FAR Part : Part 91

Mission : Training

Flight Phase : Descent

Route In Use : None

Airspace.Class E : ZZZ

Aircraft : 2

Reference : Y

Aircraft Operator : FBO

Make Model Name : Skyhawk 172/Cutlass 172

Crew Size.Number Of Crew : 2

Operating Under FAR Part : Part 91

Mission : Training

Airspace.Class E : ZZZ

Person

Location Of Person.Aircraft : X

Location In Aircraft : Flight Deck

Reporter Organization : FBO

Function.Flight Crew : Instructor

Function.Flight Crew : Pilot Not Flying

Qualification.Flight Crew : Flight Instructor

Qualification.Flight Crew : Instrument

Qualification.Flight Crew : Multiengine

Qualification.Flight Crew : Commercial

Experience.Flight Crew.Total : 1550

Experience.Flight Crew.Last 90 Days : 210

Experience.Flight Crew.Type : 690

ASRS Report Number.Accession Number : 2050709

Human Factors : Situational Awareness

Events

Anomaly.Conflict : NMAC
Anomaly.Deviation / Discrepancy - Procedural : Published Material / Policy
Detector.Person : Other Person
Miss Distance.Vertical : 400
When Detected : In-flight
Result.General : None Reported / Taken

Assessments

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

Narrative: 1

I was conducting flight training. I was giving a stage check for a pre solo student. We cleared the area throughout the flight. I instructed the student to perform a simulated emergency descent to judge his decision making with an "engine fire." We were turning and banking spiraling down and reached an altitude of about 1000 AGL. I then instructed him to recover and then to descend further down for a ground reference maneuver. When we got back on the ground another flight school reported we almost hit one of their airplanes. During the spiral descent we were into the sun as well as banking and didn't see the other airplane and the student and I were unaware we were close to another airplane.

Synopsis

Flight Instructor on training flight with student was notified of a NMAC after the flight was completed.

Time / Day

Date : 202311

Local Time Of Day : 1201-1800

Place

Locale Reference.Airport : ZZZ.Airport

State Reference : US

Relative Position.Distance.Nautical Miles : 1

Altitude.MSL.Single Value : 1800

Environment

Weather Elements / Visibility.Visibility : 10

Light : Daylight

Aircraft : 1

Reference : X

ATC / Advisory.CTAF : ZZZ

Aircraft Operator : FBO

Make Model Name : Skyhawk 172/Cutlass 172

Crew Size.Number Of Crew : 2

Operating Under FAR Part : Part 91

Flight Plan : None

Mission : Training

Flight Phase : Final Approach

Route In Use.Other

Airspace.Class E : ZZZ

Aircraft : 2

Reference : Y

ATC / Advisory.CTAF : ZZZ

Aircraft Operator : FBO

Make Model Name : Skyhawk 172/Cutlass 172

Crew Size.Number Of Crew : 1

Operating Under FAR Part : Part 91

Flight Plan : None

Mission : Training

Flight Phase : Landing

Route In Use.Other

Airspace.Class E : ZZZ

Aircraft : 3

Reference : Z

Make Model Name : UAV: Unpiloted Aerial Vehicle

Crew Size.Number Of Crew : 1

Airspace.Class E : ZZZ

Flying In / Near / Over (UAS) : Airport / Aerodrome / Heliport

Flying In / Near / Over (UAS) : Aircraft / UAS

Person

Location Of Person.Aircraft : X
Location In Aircraft : Flight Deck
Reporter Organization : FBO
Function.Flight Crew : Instructor
Function.Flight Crew : Pilot Not Flying
Qualification.Flight Crew : Flight Instructor
Qualification.Flight Crew : Instrument
Qualification.Flight Crew : Multiengine
Qualification.Flight Crew : Commercial
Experience.Flight Crew.Total : 492
Experience.Flight Crew.Last 90 Days : 126
Experience.Flight Crew.Type : 408
ASRS Report Number.Accession Number : 2050707
Human Factors : Situational Awareness

Events

Anomaly.Airspace Violation : All Types
Anomaly.Conflict : NMAC
Anomaly.Deviation / Discrepancy - Procedural : FAR
Anomaly.Deviation / Discrepancy - Procedural : Published Material / Policy
Anomaly.Deviation / Discrepancy - Procedural : Unauthorized Flight Operations (UAS)
Detector.Person : Flight Crew
Miss Distance.Horizontal : 50
Miss Distance.Vertical : 0
When Detected : In-flight
Result.General : Police / Security Involved
Result.Flight Crew : Took Evasive Action
Result.Flight Crew : Requested ATC Assistance / Clarification

Assessments

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

Narrative: 1

Earlier today at approximately XA37 Zulu, I witnessed what looked to be a near midair collision (NMAC) between a C172 and an unidentified drone and then I experienced an NMAC with the same drone. The drone was a fairly large dark colored drone. I am unable to provide exact details as I was just focused on maneuvering to avoid it in the moment and I am therefore unaware of the type or exact configuration, but it was large and dark in color with working lights that were on at the time of the event. I was on downwind for runway XX at ZZZ approximately abeam taxiway 1 at 1800 ft. MSL when I witnessed the large drone nearly miss the 172 (multiple hundred feet lower than us) on left base for Runway XX. It was an unsettling moment as from my position the drone looked to be another plane. The drone was so close to the aircraft that I thought they were going to collide. The drone looked to have passed just under the aircraft. Just shortly after that event as it approached our aircraft (also a C172) I realized it was not a plane but rather a large drone flying from base to downwind (against the traffic pattern) at the same altitude as ourselves (1800 ft. MSL). The drone was directly in front of our aircraft at 1800 ft. MSL (where we were) and it was flying at us. I quickly took the controls and did a steep turn to the right to avoid the drone and we did not impact; however, it was certainly close and unsettling with a high chance for an impact and possibly poor outcome. Of course, I hope this was an unintentional mistake by the operator of the drone, but realistically it seems

unlikely that you would accidentally fly your drone directly at two aircraft at differing altitudes and differing locations within one minute of each other. I reported the drone to local traffic on the CTAF immediately following the event for their awareness, and I was informed upon landing that the manager in the FBO promptly called the local police who were responding. I am unaware of what ended up happening with the police. Additionally, after landing I called ZZZ Approach and alerted them to the event and provided details. I submitted a safety report as well and a NASA ASRS report.

Synopsis

Fight Instructor reported a UAS in the traffic pattern caused near midair collisions with two training aircraft.

Time / Day

Date : 202311

Local Time Of Day : 1201-1800

Place

Locale Reference.Airport : ZZZ.Airport

State Reference : US

Altitude.AGL.Single Value : 0

Environment

Flight Conditions : VMC

Light : Daylight

Ceiling : CLR

Aircraft

Reference : X

Aircraft Operator : Personal

Make Model Name : SR22

Crew Size.Number Of Crew : 2

Operating Under FAR Part : Part 91

Flight Plan : VFR

Mission : Training

Flight Phase : Landing

Route In Use : Visual Approach

Airspace.Class E : ZZZ

Component

Aircraft Component : Normal Brake System

Aircraft Reference : X

Problem : Failed

Person

Location Of Person.Aircraft : X

Location In Aircraft : Flight Deck

Reporter Organization : FBO

Function.Flight Crew : Instructor

Function.Flight Crew : Pilot Flying

Qualification.Flight Crew : Flight Instructor

Qualification.Flight Crew : Instrument

Qualification.Flight Crew : Multiengine

Qualification.Flight Crew : Air Transport Pilot (ATP)

Experience.Flight Crew.Total : 3150

Experience.Flight Crew.Last 90 Days : 111

Experience.Flight Crew.Type : 200

ASRS Report Number.Accession Number : 2050705

Events

Anomaly.Aircraft Equipment Problem : Critical
Anomaly.Ground Excursion : Runway
Anomaly.Ground Event / Encounter : Loss Of Aircraft Control
Detector.Person : Flight Crew
When Detected : In-flight
Result.Flight Crew : Regained Aircraft Control

Assessments

Contributing Factors / Situations : Aircraft
Primary Problem : Aircraft

Narrative: 1

I was the CFI training a student in a Cirrus SR22 single engine aircraft. The weather was clear skies and calm winds. The preflight inspection was completed with nothing abnormal noted. The run-up was completed and nothing abnormal was noted. We departed ZZZ1 and the student performed the takeoff. We took a short flight to ZZZ for takeoff and landing training. We entered the pattern at a 45 degree angle for the left downwind of Runway XX. The student performed 4 full stop landings with taxi back via Taxiway 1 to Runway XX without any issues. On the 5th landing the student touched down about 50-100 feet past the landing markers and on speed, well within the first 3rd of the 5,003 feet runway, and immediately had trouble slowing down the airplane. I took positive control of the airplane and the right brake was completely inoperative. The left brake was fully functional. The throttle was completely closed and I kept the airplane on the centerline as long as I could using the left brake and right rudder only. Once speed decreased more the right rudder input became completely inoperative and I was forced to decrease braking pressure on the left pedal to remain straight on the runway. Once we were past the last 3rd of the runway it was clear we did not decrease enough speed to successfully stop on the runway. I continued to use left brake and right rudder, but the plane veered off the left side of the runway. We finally came to a stop in the grass about 30-40 feet on the left side of the runway. We were able to push the airplane to the ramp. Once the aircraft was on the ramp I got back in to check the brakes and the left pedal was still operative (could feel resistance) and the right pedal went straight to the floor without any resistance. The student alerted me the brakes were inoperative immediately and we were able to successfully stop the aircraft without any damage. The Cirrus SR22's free casting nose wheel uses differential braking to steer, so it was very difficult to steer without operating brakes on one side.

Synopsis

Flight Instructor on training flight with student reported brake failure on landing rollout. Aircraft departed the runway and rolled to a stop in the grass.

Time / Day

Date : 202311

Local Time Of Day : 1201-1800

Place

Locale Reference.Airport : I69.Airport

State Reference : OH

Altitude.MSL.Single Value : 1000

Environment

Light : Daylight

Aircraft : 1

Reference : X

ATC / Advisory.UNICOM : I69

Aircraft Operator : FBO

Make Model Name : Skyhawk 172/Cutlass 172

Crew Size.Number Of Crew : 2

Operating Under FAR Part : Part 91

Mission : Training

Flight Phase : Initial Approach

Airspace.Class G : I69

Aircraft : 2

Reference : Y

Make Model Name : Any Unknown or Unlisted Aircraft Manufacturer

Operating Under FAR Part : Part 91

Flight Phase : Initial Climb

Person

Location Of Person.Aircraft : X

Location In Aircraft : Flight Deck

Reporter Organization : FBO

Function.Flight Crew : Instructor

Qualification.Flight Crew : Flight Instructor

Qualification.Flight Crew : Commercial

ASRS Report Number.Accession Number : 2050684

Human Factors : Communication Breakdown

Communication Breakdown.Party1 : Flight Crew

Communication Breakdown.Party2 : Flight Crew

Events

Anomaly.Conflict : NMAC

Anomaly.Deviation / Discrepancy - Procedural : Published Material / Policy

Anomaly.Deviation / Discrepancy - Procedural : Clearance

Detector.Person : Flight Crew

Miss Distance.Horizontal : 0

Miss Distance.Vertical : 50

When Detected : In-flight
Result.General : None Reported / Taken

Assessments

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

Narrative: 1

We were entering the downwind for Runway 22 off the standard 45 degree entry, traffic had just taken off from the runway and immediately turned to the east about even with midfield and kept climbing. As we turned right to the downwind I looked down and saw the traffic about 50-75' below us departing the pattern to the east while climbing.

Synopsis

Flight Instructor on training flight with student reported a NMAC with another aircraft while in the I69 non-towered airport traffic pattern.

Time / Day

Date : 202310
Local Time Of Day : 1201-1800

Place

Locale Reference.Airport : ZZZ.Airport
State Reference : US
Altitude.MSL.Single Value : 3000

Environment

Flight Conditions : VMC
Weather Elements / Visibility.Visibility : 10

Aircraft

Reference : X
ATC / Advisory.Tower : ZZZ
Aircraft Operator : FBO
Make Model Name : PA-28 Cherokee/Archer/Dakota/Pillan/Warrior
Crew Size.Number Of Crew : 2
Operating Under FAR Part : Part 91
Flight Plan : VFR
Mission : Training
Flight Phase : Initial Climb
Airspace.Class D : ZZZ

Component

Aircraft Component : AC Generator/Alternator
Aircraft Reference : X
Problem : Failed

Person

Location Of Person.Aircraft : X
Location In Aircraft : Flight Deck
Reporter Organization : FBO
Function.Flight Crew : Instructor
Qualification.Flight Crew : Commercial
Qualification.Flight Crew : Flight Instructor
Qualification.Flight Crew : Instrument
Experience.Flight Crew.Total : 464
Experience.Flight Crew.Last 90 Days : 6
Experience.Flight Crew.Type : 6
ASRS Report Number.Accession Number : 2050663
Human Factors : Communication Breakdown
Human Factors : Training / Qualification
Human Factors : Workload
Human Factors : Time Pressure
Communication Breakdown.Party1 : Flight Crew
Communication Breakdown.Party2 : Flight Crew

Events

Anomaly.Aircraft Equipment Problem : Critical
Detector.Person : Flight Crew
When Detected : In-flight
Result.Flight Crew : Overcame Equipment Problem
Result.Flight Crew : Returned To Departure Airport
Result.Air Traffic Control : Provided Assistance

Assessments

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

Narrative: 1

Total loss of electrical power in the air. Fuel on board during departure, 48 gallons - full tanks useable fuel. Starting the engine. At the beginning, noticed slight pop up of landing and strobe light circuit breaker, just a bit of white layer of circuit breakers could be seen and I, the instructor, put it back in. Noticed everything was fine and good to taxi. Run up. Noticed no issues with magneto check and voltage flow was well around 14V. During taxi and departure, Student Pilot hardly got his seat adjusted to reach out the controls and was showcasing macho, invulnerability, and anti-authority the entire time, who was also late for the flight but did not seem to care much. Hence the instructor was concentrating much on keeping the flight coordinated and safe the entire duration of flight. Takeoff from Runway XXR. Airspeed indicator came out alive/active and all indications on the systems were in green. Was asking the student to step on the rudder and get back to the centerline. Departed to north side. Climb. Noticed student repeating the same mistake, which was to keep his legs completely off the rudders, resulting in uncoordinated flight. Completed the climb checklist and verified. Cruise. Leveled the aircraft at 3,000 ft. and completed and verified the checklist. Slow flight dirty. Student completed the activity but drifted completely towards northeast since there was no rudder usage and interest to fly. While the flight was good and under control until now, we noticed the G750 turn off completely and the instructor concluded it might be overheating since the voltage was in green. Now we had lost our transponder, communications, all primary flight instruments and maps, as well as charts. Transitioning into approach stall. The student recovered in a very harsh way and we heard a loud bang closer to the engine. Simultaneously lost our G500 and G750. Hence, we lost all electrical power and flew with G5, which is our standby instrument. Noticed amps 0 in the systems and voltage dropping rapidly. Flight back to ZZZ. Took over the controls from the student, leveled off, and we were around 8 NM northeast of the field by then. Turned the aircraft around and stayed all the way clear of the approach paths of Runway XXR and XXL. Asked the student to help me with checklist and traffic sighting. Pointed the aircraft nose towards towers which is standard procedure to get back into the airport ZZZ. Maintained 3000 ft. MSL throughout. Contacted the flight school owner / Chief Pilot over the call and texts to clear the ZZZ airspace by stating I'll be circling on top of the runway between 2500 - 3000 ft. and come in land at Runway XXR and to inform the Tower the same instructions. Watched out for all the traffic for both runways and once I noticed all traffic holding their positions, I tried to circle around the Tower if we could notice light gun signals. Since it was bright and clear sky days, couldn't notice but received a text from the owner saying it's green we can come in a land. Following these instructions made a right descending turn on Runway XXR and made a safe landing. As soon as we landed the engine indications systems turned off as well. Left with only G5 standby instrument. The airport ground staff in a truck escorted us back to

the Ramp. Noticed the alternator cable was cut. Maybe that was the loud bang we heard midair.

Synopsis

PA-28 Flight Instructor reported a complete electrical failure on initial climb that resulted in a loss of transponder, communications, all primary flight instruments, maps, and charts. With the help of the flight school's Chief Pilot for communication with ATC, the Flight Instructor landed safely.

Time / Day

Date : 202311
Local Time Of Day : 1201-1800

Place

Locale Reference.Airport : ZZZ.Airport
State Reference : US
Relative Position.Distance.Nautical Miles : 0
Altitude.AGL.Single Value : 0

Environment

Flight Conditions : VMC
Weather Elements / Visibility.Visibility : 10
Light : Daylight
Ceiling.Single Value : 18000

Aircraft

Reference : X
ATC / Advisory.UNICOM : ZZZ
Aircraft Operator : FBO
Make Model Name : Baron 55/Cochise
Crew Size.Number Of Crew : 2
Operating Under FAR Part : Part 91
Flight Plan : VFR
Mission : Training
Flight Phase : Landing
Route In Use : None
Airspace.Class E : ZZZ

Component

Aircraft Component : Landing Gear
Aircraft Reference : X
Problem : Improperly Operated

Person

Location Of Person.Aircraft : X
Location In Aircraft : Flight Deck
Reporter Organization : FBO
Function.Flight Crew : Instructor
Qualification.Flight Crew : Multiengine
Qualification.Flight Crew : Commercial
Qualification.Flight Crew : Flight Instructor
Experience.Flight Crew.Total : 1002.2
Experience.Flight Crew.Last 90 Days : 164.7
Experience.Flight Crew.Type : 169.3
ASRS Report Number.Accession Number : 2050642
Human Factors : Confusion
Human Factors : Situational Awareness
Human Factors : Time Pressure

Human Factors : Training / Qualification
Human Factors : Workload
Human Factors : Distraction

Events

Anomaly.Aircraft Equipment Problem : Critical
Anomaly.Deviation / Discrepancy - Procedural : Published Material / Policy
Anomaly.Ground Event / Encounter : Ground Strike - Aircraft
Anomaly.Ground Event / Encounter : Gear Up Landing
Detector.Person : Flight Crew
When Detected : In-flight
Result.Flight Crew : Executed Go Around / Missed Approach
Result.Aircraft : Aircraft Damaged

Assessments

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

Narrative: 1

In a routine pattern flight in Aircraft X, during our final landing, the aircraft endured ground contact without gear down. The student had requested practice in the pattern as recommended from her previous flight. We had completed our fifth landing and the it was time to bring it in for a full stop. On the last landing the student had completed a successful landing. On downwind, I failed the engine to simulate another landing. After the proper procedure for maintaining control of the aircraft, we flew a wide base into final. It is routine to not introduce gear as it depletes 20 knots of airspeed and can severely hinder aircraft control. During my final checks, I looked down and verified three green. On flare to land, I realized we were abnormally low, which was immediately followed by what felt like as tail strike. Noise from the tail. I was already guarding the throttles, and I immediately performed a go around. I did believe at the time that the props had not made contact with the ground as I had expected performance with no abnormal indications. I flew a short pattern and landed the aircraft safely. I taxied to the ramp and shutdown. Upon shut down, I realized that the props had made contact with the ground. I Immediately contacted to report what had occurred and that myself and the student were both safe. During the post flight walk around I found the tail tie down point and step had also sustained a small amount of damage as well. From other peoples experiences and the way I was taught, I always verify three greens on all segments of approach to land in a normal landing. During approach's due to task saturation, I verify them at least on base and final. I really did believe that that I saw three green on final, and the normal safeties in place to prevent potential gear up situations do not occur since it was an approach with simulated feathered engine.

Synopsis

A Flight Instructor conducting training for a single engine landing reported a prop strike and gear up landing resulting in a go around followed by a successful landing.

Time / Day

Date : 202311

Local Time Of Day : 1201-1800

Place

Locale Reference.Airport : UGN.Airport

State Reference : IL

Altitude.AGL.Single Value : 0

Environment

Flight Conditions : VMC

Weather Elements / Visibility.Visibility : 10

Light : Daylight

Ceiling.Single Value : 12000

Aircraft : 1

Reference : X

ATC / Advisory.Tower : UGN

Aircraft Operator : FBO

Make Model Name : Small Aircraft, Low Wing, 1 Eng, Fixed Gear

Crew Size.Number Of Crew : 2

Operating Under FAR Part : Part 91

Flight Plan : VFR

Mission : Training

Flight Phase : Taxi

Aircraft : 2

Reference : Y

ATC / Advisory.Tower : UGN

Make Model Name : Small Aircraft, High Wing, 1 Eng, Fixed Gear

Crew Size.Number Of Crew : 1

Operating Under FAR Part : Part 91

Flight Phase : Taxi

Person

Location Of Person.Aircraft : X

Location In Aircraft : Flight Deck

Reporter Organization : FBO

Function.Flight Crew : Instructor

Qualification.Flight Crew : Flight Instructor

Qualification.Flight Crew : Multiengine

Qualification.Flight Crew : Instrument

Qualification.Flight Crew : Commercial

Experience.Flight Crew.Total : 640

Experience.Flight Crew.Last 90 Days : 300

Experience.Flight Crew.Type : 15

ASRS Report Number.Accession Number : 2050640

Human Factors : Communication Breakdown

Human Factors : Confusion

Human Factors : Situational Awareness
Human Factors : Time Pressure
Human Factors : Workload
Human Factors : Distraction
Communication Breakdown.Party1 : Flight Crew
Communication Breakdown.Party2 : ATC

Events

Anomaly.Conflict : Ground Conflict, Critical
Anomaly.Deviation / Discrepancy - Procedural : Published Material / Policy
Anomaly.Ground Incursion : Taxiway
Detector.Person : Flight Crew
When Detected : Taxi
Result.General : None Reported / Taken

Assessments

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

Narrative: 1

I was taxiing Aircraft X with student and given instructions to taxi Runway 23 via A. Upon getting close to the taxiway, Aircraft Y taxiing at a speed of at least 19 knots was to our left and shouted over the ground frequency "To your left" and whipped past us. Ground provided us clear taxi instructions and did not specify that we give way to Aircraft Y. No follow up from tower or ground was provided.

Synopsis

A Flight Instructor reported a small aircraft taxiing at a high rate of speed shouted a warning to them as it passed by them without warning from ATC.

Time / Day

Date : 202311

Local Time Of Day : 1201-1800

Place

Locale Reference.Airport : ZZZ.Airport

State Reference : US

Altitude.AGL.Single Value : 0

Environment

Flight Conditions : VMC

Weather Elements / Visibility.Visibility : 10

Light : Daylight

Aircraft : 1

Reference : X

ATC / Advisory.Tower : ZZZ

Aircraft Operator : Personal

Make Model Name : PA-28 Cherokee/Archer/Dakota/Pillan/Warrior

Crew Size.Number Of Crew : 2

Operating Under FAR Part : Part 91

Flight Plan : None

Mission : Training

Flight Phase : Taxi

Route In Use : None

Aircraft : 2

Reference : Y

ATC / Advisory.Tower : ZZZ

Make Model Name : Lancair Undifferentiated

Crew Size.Number Of Crew : 1

Operating Under FAR Part : Part 91

Flight Phase : Landing

Person

Location Of Person.Aircraft : X

Location In Aircraft : Flight Deck

Reporter Organization : FBO

Function.Flight Crew : Instructor

Qualification.Flight Crew : Air Transport Pilot (ATP)

Qualification.Flight Crew : Flight Instructor

Experience.Flight Crew.Total : 2007

Experience.Flight Crew.Last 90 Days : 103

Experience.Flight Crew.Type : 315

ASRS Report Number.Accession Number : 2050639

Human Factors : Communication Breakdown

Communication Breakdown.Party1 : Flight Crew

Communication Breakdown.Party2 : ATC

Events

Anomaly.ATC Issue : All Types
Anomaly.Conflict : Ground Conflict, Critical
Anomaly.Deviation / Discrepancy - Procedural : Published Material / Policy
Anomaly.Ground Incursion : Runway
Detector.Person : Flight Crew
Miss Distance.Horizontal : 75
When Detected : Taxi
Result.Flight Crew : Took Evasive Action

Assessments

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

Narrative: 1

Student training flight. Landed full stop on Runway XX and was instructed to taxi via Taxiway 1 and hold short Runway XY. After holding short for several minutes we were instructed on Tower frequency to cross Runway XY at Taxiway 1 and contact Ground on the other side. Before moving we looked left and saw a Lancair who looked to be landing Runway XY so we held position. As soon as Tower gave us that crossing clearance, he said to cancel the clearance and hold short of [Runway] XY at Taxiway 1, to which we read back we saw the landing traffic and would continue to hold short. The next clearance we received was that we were cleared to cross [Runway] XY at [Taxiway] 1 and the Lancair would be exiting at [Taxiway] 2 off Runway XY. As we pulled forward we could tell the Lancair was not going to take the exit he was instructed to so we stopped the airplane on the west half of the runway and told Tower that we were going to get off the runway via [Taxiway] 2, reverse high speed exit. The idea behind this was that the Lancair would clear the runway at [Taxiway] 1 but because we would be behind it we would be unable to clear the hold-short if he was stopped off of [Taxiway] 1 and Taxiway 2 intersection. The Tower quickly approved our taxi to [Taxiway] 2. The airspace was very busy at the time with lots of training aircraft and more helicopter training traffic than I ever seen in my time at ZZZ. I believe the Tower was task saturated and in the process of having a control on another frequency to control the west side of the airport. The Lancair pilot read back the taxi instruction but did not comply with the instructed exit nor did he immediately get on the radio to say unable or anything of that sort, which played a contributing factor. Luckily we saw him and could tell he wasn't going to make the turn at [Taxiway] 3 but had it been a jet I dont know that we wouldn't have had a collision with larger wingspan and much faster response time requirement, closure rate, etc. The ZZZ Tower folks are a great group and usually have a very good handle on the air traffic.

Synopsis

PA-28 Flight Instructor reported a runway incursion occurred as an aircraft that was landing did not comply with ATC's instruction to exit the runway at a specific taxiway. To ensure there was proper clearance between aircraft, the Flight Instructor requested a different taxiway to safely exit off the runway.

Time / Day

Date : 202311

Local Time Of Day : 1201-1800

Place

Altitude.MSL.Single Value : 4500

Environment

Flight Conditions : VMC

Light : Daylight

Aircraft : 1

Reference : X

Aircraft Operator : FBO

Make Model Name : PA-28 Cherokee/Archer/Dakota/Pillan/Warrior

Crew Size.Number Of Crew : 1

Operating Under FAR Part : Part 91

Flight Plan : VFR

Mission : Training

Flight Phase : Cruise

Airspace.Class E : ZZZ

Aircraft : 2

Reference : Y

Make Model Name : Any Unknown or Unlisted Aircraft Manufacturer

Crew Size.Number Of Crew : 1

Airspace.Class E : ZZZ

Person

Location Of Person.Aircraft : X

Location In Aircraft : Flight Deck

Reporter Organization : FBO

Function.Flight Crew : Instructor

Qualification.Flight Crew : Flight Instructor

Qualification.Flight Crew : Commercial

Qualification.Flight Crew : Instrument

Experience.Flight Crew.Total : 420

Experience.Flight Crew.Last 90 Days : 52

Experience.Flight Crew.Type : 41

ASRS Report Number.Accession Number : 2050627

Human Factors : Communication Breakdown

Events

Anomaly.Conflict : NMAC

Detector.Person : Flight Crew

Miss Distance.Vertical : 450

When Detected : In-flight

Result.Flight Crew : Took Evasive Action

Assessments

Contributing Factors / Situations : Human Factors

Contributing Factors / Situations : Procedure

Primary Problem : Procedure

Narrative: 1

Training a student doing maneuvers from 4000 - 5000 ft. While on heading of west, another aircraft comes from behind us southbound with maybe 450 ft. of vertical distance and seemed to be descending. Took evasive maneuvers to descend and to the right.

Synopsis

PA-28 Flight Instructor reported a near miss while conducting maneuvers on a training flight. The Instructor identified the other aircraft and descended to the right to avoid a collision.

Time / Day

Date : 202310

Place

Locale Reference.Airport : ZZZ.Airport

State Reference : US

Altitude.AGL.Single Value : 0

Environment

Flight Conditions : VMC

Light : Daylight

Aircraft

Reference : X

ATC / Advisory.CTAF : ZZZ

Aircraft Operator : FBO

Make Model Name : Small Aircraft, High Wing, 1 Eng, Fixed Gear

Crew Size.Number Of Crew : 1

Operating Under FAR Part : Part 91

Mission : Training

Flight Phase : Landing

Airspace.Class G : ZZZ

Person

Location Of Person : Hangar / Base

Location In Aircraft : Flight Deck

Reporter Organization : FBO

Function.Flight Crew : Instructor

Function.Flight Crew : Pilot Not Flying

Qualification.Flight Crew : Flight Instructor

Qualification.Flight Crew : Instrument

Qualification.Flight Crew : Commercial

Experience.Flight Crew.Total : 617

Experience.Flight Crew.Last 90 Days : 89

Experience.Flight Crew.Type : 200

ASRS Report Number.Accession Number : 2050035

Events

Anomaly.Deviation / Discrepancy - Procedural : Published Material / Policy

Anomaly.Ground Event / Encounter : Loss Of Aircraft Control

Detector.Person : Flight Crew

When Detected : In-flight

Result.Flight Crew : Regained Aircraft Control

Result.Aircraft : Aircraft Damaged

Assessments

Contributing Factors / Situations : Human Factors

Primary Problem : Human Factors

Narrative: 1

I am a flight instructor who endorsed my student pilot, to complete his 1st solo cross country on Day 0. His route was ZZZ-ZZZ1-ZZZ2-ZZZ. My knowledge is second hand as it's based on what my student told me regarding a hard landing back at ZZZ that day. When he came into land he bounced and made the mistake of not going around immediately. The airplane bounced two more times and then he taxied off. He then secured the plane and did a post inspection and saw no damage. Days after his cross country the plane flew with multiple other student pilots for more than 6 more flight hours. On Day 2, the airplane then went into an 100 hour inspection where they found that the firewall was bent. On Day 7, I was told the plane has currently sustained substantial damage. On that day (Day 7) the flight school told my student training would be suspended until further notice. Prior to knowing my student would be suspended my plan was to complete a ground safety session regarding the importance of going around in different situations and practice just landings with him until he built the confidence and skill he needs to make better judgment calls. Due to the fact the airplane does have the damage that it does I am reporting the situation as I know it as the endorsing instructor.

Synopsis

GA flight Instructor reported a student on a solo flight experienced a hard landing and bounced the aircraft twice before regaining control and taxiing off. The aircraft was flown by other pilots a few days after the incident before it was found to have fire wall damage during a scheduled maintenance inspection.

Time / Day

Date : 202311

Local Time Of Day : 0601-1200

Place

Locale Reference.Airport : ZZZ.Airport

State Reference : US

Altitude.MSL.Single Value : 1500

Environment

Flight Conditions : VMC

Weather Elements / Visibility.Visibility : 10

Light : Daylight

Aircraft : 1

Reference : X

ATC / Advisory.UNICOM : ZZZ

Make Model Name : DA40 Diamond Star

Crew Size.Number Of Crew : 2

Operating Under FAR Part : Part 91

Flight Plan : VFR

Mission : Training

Flight Phase : Landing

Flight Phase : Initial Approach

Route In Use : None

Airspace.Class E : ZZZ

Aircraft : 2

Reference : Y

ATC / Advisory.UNICOM : ZZZ

Aircraft Operator : Personal

Make Model Name : Skyhawk 172/Cutlass 172

Crew Size.Number Of Crew : 1

Operating Under FAR Part : Part 91

Flight Plan : VFR

Mission : Personal

Flight Phase : Initial Approach

Airspace.Class E : ZZZ

Person

Location Of Person.Aircraft : X

Location In Aircraft : Flight Deck

Reporter Organization : FBO

Function.Flight Crew : Pilot Not Flying

Function.Flight Crew : Instructor

Qualification.Flight Crew : Flight Instructor

Qualification.Flight Crew : Commercial

Qualification.Flight Crew : Multiengine

Qualification.Flight Crew : Instrument

Experience.Flight Crew.Total : 1277
Experience.Flight Crew.Last 90 Days : 253
Experience.Flight Crew.Type : 521
ASRS Report Number.Accession Number : 2049655
Human Factors : Distraction
Human Factors : Situational Awareness
Human Factors : Time Pressure
Human Factors : Workload
Human Factors : Confusion

Events

Anomaly.Conflict : NMAC
Anomaly.Deviation / Discrepancy - Procedural : Published Material / Policy
Detector.Person : Flight Crew
Miss Distance.Horizontal : 300
When Detected : In-flight
Result.Flight Crew : Took Evasive Action

Assessments

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

Narrative: 1

While in the pattern we heard a call from Aircraft Y that they were 5 to 10 miles north of the airport and going to enter a left downwind for Runway XX. Traffic pattern for Runway XX is right hand traffic. We were established in the pattern with a Piper Archer in front of us. Aircraft Y then entered the right downwind behind us after we called that we are doing right traffic. We turned base as the Archer was turning final and made our call. The next call made was us turning final. As we were doing this we saw Aircraft Y around 200 to 300 feet away heading right for us. We avoided each other and then they asked if we were on final. We asked if they had us in sight before and they said no. We told them they got a little close and they proceeded to tell us we were the ones who were close. We were established in the pattern and on final with them behind us, so we had the right of way. No other issues arose after this.

Synopsis

A Flight Instructor reported a NMAC while turning base leg at a non towered airport.

Time / Day

Date : 202310
Local Time Of Day : 1201-1800

Place

Locale Reference.Airport : ZZZ.Airport
State Reference : US
Altitude.MSL.Single Value : 830

Environment

Flight Conditions : VMC
Light : Daylight

Aircraft : 1

Reference : X
ATC / Advisory.UNICOM : ZZZ
Make Model Name : Skyhawk 172/Cutlass 172
Crew Size.Number Of Crew : 2
Operating Under FAR Part : Part 91
Flight Plan : VFR
Mission : Training
Flight Phase : Initial Approach
Airspace.Class E : ZZZ

Aircraft : 2

Reference : Y
ATC / Advisory.UNICOM : ZZZ
Make Model Name : Any Unknown or Unlisted Aircraft Manufacturer
Crew Size.Number Of Crew : 1
Flight Plan : VFR
Flight Phase : Final Approach
Airspace.Class E : ZZZ

Person

Location Of Person.Aircraft : X
Location In Aircraft : Flight Deck
Reporter Organization : FBO
Function.Flight Crew : Instructor
Qualification.Flight Crew : Instrument
Qualification.Flight Crew : Multiengine
Qualification.Flight Crew : Flight Instructor
Qualification.Flight Crew : Commercial
Experience.Flight Crew.Total : 879
Experience.Flight Crew.Last 90 Days : 154
Experience.Flight Crew.Type : 189
ASRS Report Number.Accession Number : 2049330
Human Factors : Communication Breakdown
Communication Breakdown.Party1 : Flight Crew
Communication Breakdown.Party2 : Flight Crew

Events

Anomaly.Conflict : NMAC
Detector.Person : Flight Crew
When Detected : In-flight
Result.Flight Crew : Took Evasive Action

Assessments

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

Narrative: 1

The problem arose from what I believe was a lack of communication and pilot negligence. My student and I were doing traffic pattern laps at ZZZ where each leg we called out our position and confirmed with other traffic that was in the pattern or entering the pattern. During this one lap as we had turned left base for Runway XX there I noticed an aircraft on final that was at our 2 o'clock and no more than 1 to 200 feet below us. At that time I took over the controls and executed a climbing left turn back into pattern altitude and said so over the CTAF. The aircraft inbound on final then radio called "the traffic off our left wing is clear of us" and then continued inbound on final. This aircraft did not make a radio call prior to this that neither my student nor I missed or heard, this was his only transmission so far. After we executed our climbing left turn and were established on final we asked the aircraft if they had ADS-B on board to which they replied they did not. The aircraft was not making any calls and could not be located on the Sentry of G1000 avionics onboard because the aircraft did not have ADS-B installed. The easiest solution to this would have been proper and clear communication, and announcing your position especially in an area that is not controlled. Many accidents happen like this so it is important to communicate especially when you are entering the pattern and critical phases like on a final.

Synopsis

C172 Flight Instructor reported a NMAC in the pattern at a non-towered airport.

Time / Day

Date : 202310
Local Time Of Day : 0601-1200

Place

Locale Reference.Airport : ZZZ.Airport
State Reference : US
Altitude.AGL.Single Value : 0

Environment

Flight Conditions : VMC
Light : Dawn

Aircraft

Reference : X
Aircraft Operator : Personal
Make Model Name : Skyhawk 172/Cutlass 172
Crew Size.Number Of Crew : 1
Operating Under FAR Part : Part 91
Flight Plan : VFR
Mission : Training
Flight Phase : Parked

Component

Aircraft Component : Parking Brake
Aircraft Reference : X
Problem : Failed

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 : 182.8
Experience.Flight Crew.Last 90 Days : 29.9
Experience.Flight Crew.Type : 182.8
ASRS Report Number.Accession Number : 2049325
Human Factors : Situational Awareness

Events

Anomaly.Aircraft Equipment Problem : Critical
Anomaly.Ground Excursion : Ramp
Anomaly.Ground Event / Encounter : Object
Anomaly.Ground Event / Encounter : Loss Of Aircraft Control
Detector.Person : Flight Crew

When Detected : Taxi

Result.General : None Reported / Taken

Assessments

Contributing Factors / Situations : Aircraft

Contributing Factors / Situations : Human Factors

Primary Problem : Aircraft

Narrative: 1

I was parked on [the] ramp before start, I had set the parking brake and had gone through my normal pre-taxi checklist. After I had done my leaning for 1200 RPM, I looked over at my iPad to copy in my flight plan to ZZZ1 and when I looked up, I was rolling towards the north side fence. I tried applying full brakes and pulling the throttle and mixture, but it was too late, and I hit the fence. While I looked down, I saw that the parking brake was still set.

Synopsis

Cessna 172 pilot reported the aircraft started rolling after engine start even though the parking brake was set and struck a fence.

Time / Day

Date : 202310
Local Time Of Day : 1201-1800

Place

Locale Reference.Airport : ZZZ.Airport
State Reference : US
Altitude.MSL.Single Value : 500

Environment

Flight Conditions : VMC
Weather Elements / Visibility.Visibility : 10
Light : Daylight

Aircraft

Reference : X
ATC / Advisory.Tower : ZZZ
Aircraft Operator : FBO
Make Model Name : PA-28 Cherokee/Archer/Dakota/Pillan/Warrior
Crew Size.Number Of Crew : 1
Operating Under FAR Part : Part 91
Flight Plan : VFR
Mission : Training
Flight Phase : Final Approach
Route In Use : Visual Approach
Airspace.Class D : ZZZ

Component

Aircraft Component : Engine
Aircraft Reference : X
Problem : Failed

Person : 1

Location Of Person.Aircraft : X
Location In Aircraft : Flight Deck
Reporter Organization : FBO
Function.Flight Crew : Pilot Not Flying
Function.Flight Crew : Instructor
Qualification.Flight Crew : Flight Instructor
Qualification.Flight Crew : Commercial
Qualification.Flight Crew : Instrument
Qualification.Flight Crew : Multiengine
Experience.Flight Crew.Total : 568.2
Experience.Flight Crew.Last 90 Days : 139
Experience.Flight Crew.Type : 23.9
ASRS Report Number.Accession Number : 2049310
Human Factors : Situational Awareness
Human Factors : Training / Qualification
Human Factors : Troubleshooting

Human Factors : Communication Breakdown
Communication Breakdown.Party1 : Flight Crew
Communication Breakdown.Party2 : ATC

Person : 2

Location Of Person.Aircraft : X
Location In Aircraft : Flight Deck
Reporter Organization : FBO
Function.Flight Crew : Trainee
Function.Flight Crew : Pilot Flying
Qualification.Flight Crew : Student
Experience.Flight Crew.Total : 17.8
Experience.Flight Crew.Last 90 Days : 17.8
Experience.Flight Crew.Type : 4.1
ASRS Report Number.Accession Number : 2049311
Human Factors : Troubleshooting
Human Factors : Situational Awareness
Human Factors : Communication Breakdown
Human Factors : Training / Qualification
Communication Breakdown.Party1 : Flight Crew
Communication Breakdown.Party2 : ATC

Events

Anomaly.Aircraft Equipment Problem : Critical
Anomaly.Ground Excursion : Runway
Detector.Person : Flight Crew
When Detected : In-flight
Result.General : Evacuated
Result.General : Maintenance Action
Result.Flight Crew : Landed in Emergency Condition

Assessments

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

Narrative: 1

Here is my official statement as Pilot in Command and Certificated Flight Instructor for the events that took place. The aircraft in question was a Piper Pilot 100i PA-28-181. The engine had roughly 53.9 hours on the tachometer at the time of the incident. The aircraft was running without issue for the entirety of the flight up until the last lap in the traffic pattern at ZZZ. On the upwind leg of the traffic pattern, there were no issues to report; but there was some slight engine roughness when reducing the power to 1900RPM on the downwind. My student and I configured the aircraft for approach to landing when abeam the numbers for runway X. We reduced the power to 1500RPM and set the flaps to 10 degrees to set up for a normal traffic pattern approach. When turning base after my student set the flaps to 25 degrees, I started to notice that the aircraft speed was getting slow; so I told my student to add a little bit of power. After adding the power, I noticed that the increase in the throttle had less effect on the aircraft than usual, so I pushed the

throttle lever forward myself. While turning final, I pushed the throttle all the way forward. I noticed a slight increase in RPM, then the RPM slowly rolled back to about 1000RPM and continued windmilling with zero thrust; and it felt as if the aircraft had completely lost its engine. After feeling this sensation, I quickly took the controls from my student. At this point in time, our altitude is 500 feet, airspeed is 65kts, and distance is about $\frac{3}{4}$ of a mile from the runway. I maintained the best airspeed possible which amounted to about 68kts with the remaining energy in flight, and I retracted the 2nd notch of flaps to reduce the descent angle. I had my student switch the fuel tanks while I tried moving the throttle and mixture levers, checking the magnetos, verifying that the auxiliary fuel pump was on, opening the alternate air, and checking the engine indicators to make sure it wasn't spark or air flow issue. Upon reaching the realization that the engine was not going to restart, I said the following to tower: "Tower, Aircraft X [requesting priority handling], loss of engine on short final runway X." After stating that, I realized that my descent rate would put me just short of the runway in the grass, so I came low over the tree line at the approach end of the runway. Upon reaching ground effect, I deployed all remaining flaps to try and float to the runway hard surface. The aircraft ended up touching down about 20 feet short of the runway in the grass, but the nosewheel of the aircraft was held off until reaching the beginning of the runway. I notified tower that we landed safely and that we were taxiing. After rolling onto the runway, the propeller stopped spinning, and the aircraft had enough momentum to roll onto runway XX via a left turn then clear of runway XX just before Taxiway 1. After coming to a complete stop, we shut the aircraft electrical system down and awaited ARFF (Airport Rescue and Firefighting) as well as FBO for movement and debriefing. The two souls on board were without injury or harm, and the aircraft had no visible damage. The airport employee also stated that there was no visible damage done to any runway lights.

Narrative: 2

Myself and my instructor were involved in an engine failure. We had come back from ZZZ1 where we worked on slow flight, power off stall, and practice engine failure landing. Upon return, we flew four touch and go traffic patterns. On the final pattern starting upwind while turning crosswind, My instructor asked me if I had also noticed engine roughness. I had not noticed it. We flew downwind and added first notch of flaps. We started our base turn and added second notch of flaps. In the middle of our turn base the engine went silent and our propeller slowed down. My instructor took the controls with a clear exchange of controls. I was only asked to switch fuel tanks. He made our radio call to ATC and informed them of the situation. We cleared the tress and touched down in a grass field 40-50 feet short of the runway. We had enough speed to keep rolling onto the runway and eventually clear the runway. The engine would still not start so we towed it back to tie down.

Synopsis

PA-28-181 Flight Instructor reported an engine malfunction in the traffic pattern on base leg. The Instructor took control when the engine lost power, turned to the runway and landed just short of the runway in the grass then rolled onto the runway where the engine stopped and the Instructor and student evacuated unhurt with no damage to the aircraft or runway lights.

Time / Day

Date : 202310

Local Time Of Day : 0601-1200

Place

Locale Reference.Airport : ZZZ.Airport

State Reference : US

Altitude.AGL.Single Value : 0

Environment

Flight Conditions : VMC

Weather Elements / Visibility.Visibility : 10

Light : Daylight

Aircraft

Reference : X

ATC / Advisory.Tower : ZZZ

Aircraft Operator : Personal

Make Model Name : M-20 M Bravo

Crew Size.Number Of Crew : 1

Operating Under FAR Part : Part 91

Flight Plan : VFR

Mission : Training

Flight Phase : Landing

Route In Use : Visual Approach

Airspace.Class D : ZZZ

Person

Location Of Person.Aircraft : X

Location In Aircraft : Flight Deck

Reporter Organization : Personal

Function.Flight Crew : Pilot Flying

Qualification.Flight Crew : Private

Qualification.Flight Crew : Instrument

Experience.Flight Crew.Total : 419.2

Experience.Flight Crew.Last 90 Days : 4.1

Experience.Flight Crew.Type : 259.1

ASRS Report Number.Accession Number : 2048430

Human Factors : Situational Awareness

Human Factors : Confusion

Human Factors : Training / Qualification

Human Factors : Workload

Human Factors : Other / Unknown

Human Factors : Time Pressure

Events

Anomaly.Ground Event / Encounter : Loss Of Aircraft Control

Anomaly.Ground Event / Encounter : Object

Detector.Person : Flight Crew

When Detected : In-flight

Result.Flight Crew : Became Reoriented

Result.Flight Crew : Executed Go Around / Missed Approach

Result.Flight Crew : Regained Aircraft Control

Assessments

Contributing Factors / Situations : Human Factors

Primary Problem : Human Factors

Narrative: 1

I was flying Aircraft X for the first time on a training flight from ZZZ to ZZZ1, with a CFII on board. The flight to ZZZ1 was uneventful. When on short final, around XA: 45 hours, I saw that I was a little low, and a little slow, and needed to get beyond the displaced threshold so power was added. I got past the threshold, but also ended up being left of center. I flared too high, and when the plane touched down it bounced. In not wanting to risk a hard bounce again, I applied full power to execute a go-around. The p-factor yawed the plane to the left, and pushed the plane even closer to the runway edge lights, while still trying to fly. The plane ended up being in line with the runway edge lights, and 2 or 3 were struck. At some point during this sequence of events, after the bounce and after the application of full power, my CFII took control of the airplane. After the collisions, the plane was landed under control, and on the runway. The plane never left the asphalt part of the runway. [Requested for priority] and we taxied to the transient parking and shut down without issue. Within the hour, after all of the appropriate notifications were made, my CFII and I did an analytical debrief of what transpired. As this was my first time flying this high performance plane, we discussed how much more the p-factor can affect the airplane. We talked about how the go-around decision was a good decision, but being left of center, then the input of full power and not being used to the new p-factor, all lined up to push us towards the lights. We also talked about power settings and had we not flared too high, and bounced, being left of center probably wouldn't have been an issue. It was a good debrief and I learned a lot. It also further reinforced making sure all things are set, and the pilot and plane are set up for success on landing. Training with this CFII will continue, as will the adage of having a pilot's license is a license to learn. Thank you for your time.

Synopsis

A single engine pilot reported a loss of control while attempting to land. The aircraft drifted left of center and while airborne made contact with some runway lights. With help from the accompanying CFI, a go-around was accomplished and then a normal landing.

Time / Day

Date : 202310
Local Time Of Day : 0601-1200

Place

Locale Reference.ATC Facility : BED.Tower
State Reference : MA
Altitude.AGL.Single Value : 1100

Environment

Flight Conditions : VMC
Light : Daylight

Aircraft : 1

Reference : X
ATC / Advisory.Tower : BED
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 : None
Mission : Training
Flight Phase : Climb
Route In Use : None
Airspace.Class D : BED

Aircraft : 2

Reference : Y
ATC / Advisory.Tower : BED
Make Model Name : Small Aircraft, Low Wing, 1 Eng, Fixed Gear
Crew Size.Number Of Crew : 1

Person

Location Of Person.Aircraft : X
Location In Aircraft : Flight Deck
Reporter Organization : FBO
Function.Flight Crew : Instructor
Function.Flight Crew : Pilot Not Flying
Qualification.Flight Crew : Commercial
Qualification.Flight Crew : Flight Instructor
Experience.Flight Crew.Total : 3990
Experience.Flight Crew.Last 90 Days : 52
Experience.Flight Crew.Type : 1600
ASRS Report Number.Accession Number : 2048404
Human Factors : Communication Breakdown
Human Factors : Situational Awareness
Human Factors : Training / Qualification
Human Factors : Distraction

Communication Breakdown.Party1 : Flight Crew
Communication Breakdown.Party2 : ATC

Events

Anomaly.Conflict : NMAC
Detector.Person : Flight Crew
Miss Distance.Horizontal : 300
When Detected : In-flight
Result.Flight Crew : Took Evasive Action
Result.Air Traffic Control : Separated Traffic

Assessments

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

Narrative: 1

During an instructional flight, after performing a touch and go, climbing in the pattern, we turned left crosswind. After completing the turn, the student and I visually identified traffic ahead and to our right, but very close. Due to the closeness of the two, I directed the student to turn downwind which kept lateral separation from the other aircraft, but changed the sequence of our arrival in the pattern. I contacted the tower, and they told the other (outside) aircraft to perform a 360. After listening to the tower recording, and viewing the ADS-B data, I'm aware of several factors and mistakes that led to the loss of separation. My focus was on evaluating my student's performance. While I was observing traffic visually and using an ADS-B connected iPad, I lost sight and awareness of the aircraft in the pattern ahead of us. Being seated on the right side of the aircraft, and making a left climbing turn, it was not possible for me to see the other aircraft until we completed the crosswind turn. I am now aware that the other aircraft extended upwind, possibly out of confusion based on what I heard in replaying the audio. Had ATC instructed them to extend upwind, I would have been alerted to the need for us to delay our turn. I incorrectly assumed that they were flying a normal pattern, and we did not need to delay our turn to crosswind. I visually checked to our left before making the turn, but the other aircraft was farther ahead, and not visible to me. Once we turned crosswind, and I identified the other aircraft, I made the decision to turn inside of them. At the moment, it seemed that trying to maneuver behind them would have been a more difficult maneuver. Ideally, we should not have turned crosswind, but given that we did, I can also see that returning to upwind, or just making a turn to the right would have kept us in the proper sequence. I'm still concerned that making a right turn might have brought us closer to the other aircraft which would have created a greater hazard.

Synopsis

General aviation Flight Instructor reported a near miss with another aircraft in the traffic pattern during a training flight. The tower instructed the other aircraft to perform a maneuver to separate the traffic and changed the Instructor pilots landing sequence to provide more separation in the traffic pattern.

Time / Day

Date : 202310

Local Time Of Day : 0601-1200

Place

Altitude.AGL.Single Value : 0

Environment

Flight Conditions : VMC

Weather Elements / Visibility.Visibility : 10

Light : Daylight

Aircraft : 1

Reference : X

Aircraft Operator : Personal

Make Model Name : Small Aircraft, High Wing, 1 Eng, Fixed Gear

Crew Size.Number Of Crew : 2

Operating Under FAR Part : Part 91

Flight Plan : None

Mission : Training

Flight Phase : Takeoff / Launch

Aircraft : 2

Reference : Y

Make Model Name : Small Aircraft, High Wing, 1 Eng, Fixed Gear

Crew Size.Number Of Crew : 1

Flight Phase : Final Approach

Person

Location Of Person.Aircraft : X

Location In Aircraft : Flight Deck

Reporter Organization : Personal

Function.Flight Crew : Instructor

Function.Flight Crew : Pilot Not Flying

Qualification.Flight Crew : Flight Instructor

Qualification.Flight Crew : Instrument

Qualification.Flight Crew : Commercial

Experience.Flight Crew.Total : 650

ASRS Report Number.Accession Number : 2048382

Human Factors : Time Pressure

Human Factors : Situational Awareness

Events

Anomaly.Conflict : Ground Conflict, Critical

Anomaly.Conflict : NMAC

Anomaly.Deviation / Discrepancy - Procedural : Published Material / Policy

Detector.Person : Flight Crew

Miss Distance.Horizontal : 200

Miss Distance.Vertical : 200
When Detected : In-flight
Result.Flight Crew : Took Evasive Action

Assessments

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

Narrative: 1

Student and I were training at an airport with a large building to the NE. Getting out of our starting airport had taken a longer than usual time, so I was already feeling pressure to get my student some valuable training time instead of sitting at the hold short line. The student positioned the plane at the hold short line in a way that partially blocked sight to base and final. I relied on my iPad with ADS-B in for traffic avoidance. I saw an aircraft that was showing as a ~2 mile base. The other pilot called a right base for the active. I instructed my student to take the runway and depart. The other aircraft called a short final and I made the mistake of instructing my student to continue instead of taking the controls and stopping prior to entering the runway. This forced the other pilot to perform a go around. The similar performance of our airplanes created a situation where we were on the same flight path, climbing at the same rate and with the same speed. At this point I took the controls from my student and turned away from the other aircraft. I departed the pattern and climbed up to let myself decompress. I pride myself on being a safe pilot, and I let my impatience get in the way of safely operating the aircraft. Going forward, I will ensure that I have a good view of base and final, and have visually identified any potential conflicting aircraft instead of relying on the information provided via ADS-B.

Synopsis

A Flight Instructor reported taking the runway with landing traffic and continuing takeoff resulted in a critical ground conflict and NMAC on climbout.

Time / Day

Date : 202310
Local Time Of Day : 1201-1800

Place

Locale Reference.ATC Facility : BAZ.Tower
State Reference : TX
Relative Position.Distance.Nautical Miles : 0.5
Altitude.MSL.Single Value : 1200

Environment

Flight Conditions : Marginal
Weather Elements / Visibility.Visibility : 10
Light : Daylight
Ceiling.Single Value : 1900

Aircraft : 1

Reference : X
ATC / Advisory.Tower : BAZ
Aircraft Operator : FBO
Make Model Name : Helicopter
Crew Size.Number Of Crew : 1
Operating Under FAR Part : Part 91
Flight Plan : VFR
Mission : Training
Flight Phase : Climb
Route In Use : Visual Approach
Airspace.Class D : BAZ

Aircraft : 2

Reference : Y
ATC / Advisory.Tower : BAZ
Make Model Name : Any Unknown or Unlisted Aircraft Manufacturer
Airspace.Class D : BAZ

Person

Location Of Person.Aircraft : X
Location In Aircraft : Flight Deck
Reporter Organization : FBO
Function.Flight Crew : Instructor
Function.Flight Crew : Pilot Flying
Qualification.Flight Crew : Flight Instructor
Qualification.Flight Crew : Commercial
Qualification.Flight Crew : Instrument
Qualification.Flight Crew : Rotorcraft
Experience.Flight Crew.Total : 600
Experience.Flight Crew.Last 90 Days : 150
Experience.Flight Crew.Type : 150
ASRS Report Number.Accession Number : 2048348

Human Factors : Situational Awareness
Human Factors : Training / Qualification
Human Factors : Communication Breakdown
Communication Breakdown.Party1 : Flight Crew
Communication Breakdown.Party2 : ATC

Events

Anomaly.ATC Issue : All Types
Anomaly.Conflict : NMAC
Anomaly.Deviation / Discrepancy - Procedural : Published Material / Policy
Anomaly.Deviation / Discrepancy - Procedural : FAR
Detector.Person : Flight Crew
Miss Distance.Horizontal : 200
Miss Distance.Vertical : 400
When Detected : In-flight
Result.Flight Crew : Took Evasive Action
Result.Air Traffic Control : Separated Traffic

Assessments

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

Narrative: 1

During a routine training flight into a towered airport, the student and I performed a shallow approach running landing after receiving clearance for the option and right closed on the go. After performing the maneuver, we proceeded to do the right traffic as advised and reported midfield for the downwind (as is standard protocol for the airport). After not hearing anything back from the tower (1-3 seconds) from the tower, I checked the radio frequency, and squelch, heard nothing, and then turned up the volume. As soon as the volume was turned up I heard tower stating to turn north for us and that the other aircraft had us in sight. We passed over the other aircraft who was landing on the Runway 13 that crosses the one we were cleared for Runway 17, turned north and departed home. Cause: It's hard to say why the volume was turned down as I had not done it and I didn't notice the student changing anything on the radio. The best cause I can figure out is that the volume knob is on the older side and the vibrations from our running landing possibly caused it to drop. Suggestion: Double check squelch on the aircraft in case the volume (or anything) has been inadvertently turned down or changed if radios have been silent for too long.

Synopsis

General aviation rotor craft Instructor pilot reported a near miss while in the airport traffic pattern. The Instructor performed a low pass, re-entered the pattern, then lost communications with the tower and conflicted with another aircraft, then turned away from the conflict and returned to the home airport.

Time / Day

Date : 202310

Local Time Of Day : 1801-2400

Place

Locale Reference.Airport : ZZZ.Airport

State Reference : US

Altitude.MSL.Single Value : 1200

Environment

Weather Elements / Visibility : Haze / Smoke

Weather Elements / Visibility.Visibility : 10

Light : Daylight

Ceiling.Single Value : 12000

Aircraft : 1

Reference : X

ATC / Advisory.Tower : ZZZ

Aircraft Operator : FBO

Make Model Name : Piper Aircraft Corp Undifferentiated or Other Model

Crew Size.Number Of Crew : 2

Operating Under FAR Part : Part 91

Flight Plan : VFR

Mission : Training

Flight Phase : Final Approach

Route In Use : Visual Approach

Airspace.Class D : ZZZ

Aircraft : 2

Reference : Y

ATC / Advisory.Tower : ZZZ

Make Model Name : Cessna Citation Undifferentiated or Other Model

Crew Size.Number Of Crew : 2

Flight Phase : Initial Approach

Airspace.Class D : ZZZ

Person

Location Of Person.Aircraft : X

Location In Aircraft : Flight Deck

Reporter Organization : Fractional

Function.Flight Crew : Instructor

Function.Flight Crew : Pilot Not Flying

Qualification.Flight Crew : Commercial

Qualification.Flight Crew : Instrument

Qualification.Flight Crew : Multiengine

Qualification.Flight Crew : Flight Instructor

Experience.Flight Crew.Total : 700

Experience.Flight Crew.Last 90 Days : 100

ASRS Report Number.Accession Number : 2047700

Human Factors : Situational Awareness
Human Factors : Workload
Human Factors : Confusion
Human Factors : Distraction

Events

Anomaly.ATC Issue : All Types
Anomaly.Conflict : NMAC
Detector.Person : Flight Crew
Miss Distance.Horizontal : 400
Miss Distance.Vertical : 300
When Detected : In-flight
Result.Flight Crew : Took Evasive Action

Assessments

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

Narrative: 1

Today Piper Warrior was on final for Runway XX and ATC Tower requested our aircraft to turn right 20 degrees off the final path. Other aircraft on a longer final were also directed to deviate to some degree. Few seconds after ATC instructed Aircraft X to turn left to 190. As my student turned left to 190 we saw a head on collision course with a Citation aircraft which had been given preference to land over us and we continued north bound to avoid the traffic and the wake turbulence. To me it felt like a very close call. Nothing more happened and after we were screamed at and were told to fly east bound and rejoin after few more vectors were given. Please feel free to contact me at any time.

Synopsis

A Flight Instructor reported a NMAC after turning to a heading assigned by the Tower.

Time / Day

Date : 202310
Local Time Of Day : 0601-1200

Place

Locale Reference.Airport : VKX.Airport
State Reference : MD
Altitude.MSL.Single Value : 150

Environment

Flight Conditions : VMC
Weather Elements / Visibility.Visibility : 10
Light : Daylight

Aircraft

Reference : X
ATC / Advisory.CTAF : VKX
Aircraft Operator : FBO
Make Model Name : Small Aircraft, High Wing, 1 Eng, Fixed Gear
Crew Size.Number Of Crew : 1
Operating Under FAR Part : Part 91
Flight Plan : VFR
Mission : Training
Flight Phase : Final Approach
Route In Use : Direct

Person

Location Of Person.Aircraft : X
Reporter Organization : FBO
Function.Flight Crew : Single Pilot
Function.Flight Crew : Trainee
Function.Flight Crew : Pilot Flying
Qualification.Flight Crew : Student
Experience.Flight Crew.Total : 94.5
Experience.Flight Crew.Last 90 Days : 13.2
Experience.Flight Crew.Type : 94.5
ASRS Report Number.Accession Number : 2047302

Events

Anomaly.No Specific Anomaly Occurred : Unwanted Situation
Detector.Person : Flight Crew
When Detected : In-flight
Result.Flight Crew : Took Evasive Action

Assessments

Contributing Factors / Situations : Airport
Primary Problem : Airport

Narrative: 1

I was returning to Potomac Airfield (VKX) from ZZZ. After flying a normal left pattern for runway 24 at VKX, I stayed at or above the PAPI glide slope until clear of the trees on the approach end of the runway. The flight path (on glide path) is very close to the top of the trees, which have not been trimmed in a while. I am concerned that tree growth has encroached onto the margin of error for the approach path and think that pruning and thinning of the trees on the approach end of Runway 24 would be prudent to improve safety.

Synopsis

Student pilot reported that the "on glide path" profile when using the PAPI for VKX Runway 24 is very close to the trees at the approach end of the runway. The reporter suggested the tree tops be trimmed.

Time / Day

Date : 202310
Local Time Of Day : 0601-1200

Place

Locale Reference.ATC Facility : ORL.Tower
State Reference : FL
Altitude.MSL.Single Value : 1500

Environment

Flight Conditions : VMC
Weather Elements / Visibility.Visibility : 10
Light : Daylight

Aircraft : 1

Reference : X
ATC / Advisory.Tower : ORL
Aircraft Operator : FBO
Make Model Name : Small Aircraft, High Wing, 1 Eng, Fixed Gear
Crew Size.Number Of Crew : 1
Operating Under FAR Part : Part 91
Flight Plan : None
Mission : Training
Flight Phase : Cruise
Airspace.Class E : ORL

Aircraft : 2

Reference : Y
Make Model Name : Any Unknown or Unlisted Aircraft Manufacturer

Person

Location Of Person.Aircraft : X
Function.Flight Crew : Instructor
Qualification.Flight Crew : Commercial
Qualification.Flight Crew : Flight Instructor
Experience.Flight Crew.Total : 328.3
Experience.Flight Crew.Last 90 Days : 52.9
Experience.Flight Crew.Type : 173.4
ASRS Report Number.Accession Number : 2047289
Human Factors : Communication Breakdown
Human Factors : Situational Awareness
Human Factors : Training / Qualification
Communication Breakdown.Party1 : Flight Crew
Communication Breakdown.Party2 : ATC

Events

Anomaly.Conflict : NMAC
Detector.Automation : Aircraft TA

Detector.Person : Flight Crew
Miss Distance.Vertical : 200
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 : Procedure

Narrative: 1

We were exiting the Orlando Executive Class D on a training flight. We departed to the Northwest. I believe we were vectored North (by ORL tower). An aircraft seemed to be approaching the arrival for SFB. He was at our altitude and coming towards us. I believe we were still on ORL tower, but he was not talking to the other aircraft. I had to take the controls and descend to avoid. This was after ADSB onboard alerted the traffic in front of us. This will make me much more vigilant in the vicinity of Executive and the surrounding airspace. I will also avoid the corridor that many aircraft tend to take to join the arrival.

Synopsis

Instructor pilot reported a near miss while on a training flight after departing a tower-controlled airport and communicating with ATC. The Instructor was alerted by ADS-B, then observed the aircraft at the same altitude coming toward the flight, and maneuvered sharply to avoid the conflict.

Time / Day

Date : 202310

Local Time Of Day : 1201-1800

Place

Locale Reference.ATC Facility : ZZZ.TRACON

State Reference : US

Altitude.MSL.Single Value : 3000

Environment

Flight Conditions : VMC

Weather Elements / Visibility.Visibility : 10

Light : Daylight

Ceiling.Single Value : 12000

Aircraft

Reference : X

ATC / Advisory.TRACON : ZZZ

Aircraft Operator : FBO

Make Model Name : PA-28 Cherokee/Archer/Dakota/Pillan/Warrior

Crew Size.Number Of Crew : 2

Operating Under FAR Part : Part 91

Flight Plan : None

Mission : Training

Flight Phase : Cruise

Route In Use : None

Component

Aircraft Component : Electrical Power

Aircraft Reference : X

Problem : Malfunctioning

Person

Location Of Person.Aircraft : X

Location In Aircraft : Flight Deck

Reporter Organization : FBO

Function.Flight Crew : Instructor

Qualification.Flight Crew : Flight Instructor

Qualification.Flight Crew : Instrument

Qualification.Flight Crew : Multiengine

Qualification.Flight Crew : Commercial

Experience.Flight Crew.Total : 700

Experience.Flight Crew.Last 90 Days : 260

Experience.Flight Crew.Type : 400

ASRS Report Number.Accession Number : 2047010

Events

Anomaly.Aircraft Equipment Problem : Critical
Detector.Person : Flight Crew
When Detected : In-flight
Result.Flight Crew : Returned To Departure Airport
Result.Flight Crew : Landed As Precaution

Assessments

Contributing Factors / Situations : Aircraft
Primary Problem : Aircraft

Narrative: 1

Was training in a PA-28 on stalls and steep turns south of ZZZ in the training area. Saw radios flickering, checked voltage, showed no charge on ammeter, saw battery circuit breaker was popped out. Followed checklist, reduced power load, reset circuit breaker. Power was restored for 5 minutes, then failed again. Flew back to ZZZ, got clearance to land and taxi before complete electrical failure. Called ATC on phone during taxi to confirm no issues.

Synopsis

P28A Flight Instructor reported returning to departure airport after experiencing electrical system issues. Aircraft landed safely, and all electrical power was lost after landing.

Time / Day

Date : 202310

Local Time Of Day : 1201-1800

Place

Locale Reference.Airport : CNO.Airport

State Reference : CA

Altitude.AGL.Single Value : 0

Environment

Flight Conditions : VMC

Weather Elements / Visibility.Visibility : 10

Light : Daylight

Ceiling.Single Value : 10000

Aircraft

Reference : X

ATC / Advisory.Tower : CNO

Aircraft Operator : Personal

Make Model Name : Small Aircraft

Crew Size.Number Of Crew : 1

Operating Under FAR Part : Part 91

Flight Plan : VFR

Mission : Training

Flight Phase : Taxi

Person : 1

Location Of Person.Aircraft : X

Location In Aircraft : Flight Deck

Reporter Organization : Personal

Function.Flight Crew : Pilot Not Flying

Function.Flight Crew : Instructor

Qualification.Flight Crew : Flight Instructor

Qualification.Flight Crew : Multiengine

Qualification.Flight Crew : Instrument

Qualification.Flight Crew : Air Transport Pilot (ATP)

Experience.Flight Crew.Total : 3188

Experience.Flight Crew.Last 90 Days : 46

Experience.Flight Crew.Type : 392

ASRS Report Number.Accession Number : 2046993

Human Factors : Communication Breakdown

Human Factors : Other / Unknown

Human Factors : Situational Awareness

Human Factors : Training / Qualification

Human Factors : Distraction

Communication Breakdown.Party1 : Flight Crew

Communication Breakdown.Party2 : Flight Crew

Person : 2

Location Of Person.Aircraft : X
Location In Aircraft : Flight Deck
Reporter Organization : Personal
Function.Flight Crew : Trainee
Qualification.Flight Crew : Commercial
Qualification.Flight Crew : Instrument
Experience.Flight Crew.Total : 850
Experience.Flight Crew.Last 90 Days : 150
Experience.Flight Crew.Type : 20
Human Factors : Training / Qualification
Human Factors : Situational Awareness
Human Factors : Communication Breakdown
Human Factors : Confusion
Communication Breakdown.Party1 : Flight Crew
Communication Breakdown.Party2 : Flight Crew

Events

Anomaly.Deviation / Discrepancy - Procedural : Published Material / Policy
Anomaly.Deviation / Discrepancy - Procedural : Clearance
Anomaly.Ground Incursion : Runway
Detector.Person : Air Traffic Control
Result.General : None Reported / Taken

Assessments

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

Narrative: 1

I was operating in the role of a Multi-Engine Flight instructor at Chino, California Airport in Aircraft X. An ATP-rated pilot, who I have known for about a year requested I provide initial multi-engine flight instruction to a student who is instrument and commercial rated in a single engine aircraft with approximately XXX hours. The ATP pilot requested my service because he was aware that I had been providing instruction in an Aircraft X Type X and he owned an Aircraft X Type Y, so I met their insurance requirements. We agreed it would be a good opportunity for the student to get used to flying that aircraft with a current flight instructor. Before we actually got in the aircraft, I conducted almost two hours of multi-engine ground instruction describing aerodynamic principals to include Vmc and all emergency procedures. I informed the student that any aircraft emergencies encountered during the flight today would be handled as real emergencies. Typically on a first flight, I want the student to be the sole manipulator of the controls to get a feel for a larger, faster and heavier aircraft. The ATP-rated pilot sat in the back of the airplane to help provide guidance on the flight profiles he wanted us to maintain when it came to performance and engine maintenance. For instance, he closely monitored the temperatures of the cylinders and repeatedly asked what the temperatures were anytime we were conducting multi-engine maneuvers. As I quickly learned, this became a distraction to not only myself as trying to instruct the student but also to the student flying the plane. After a little over an hour of air work we decided to return to Chino to practice several landings. During the descent, the student started to become overwhelmed with the workload and requested me to handle the radio work. As we descended, the ATP pilot again began to ensure we were properly monitoring the engine gauges and the student was engaging with him more on the performance of the airplane and monitoring the

engines than what I believed was necessary. I contacted Chino Tower with the proper ATIS and advised we were inbound for landing. We were given instructions to make a left base for Runway 26L, which we had requested. We proceeded into landing and exited left from the runway onto Taxiway Echo. Although this landing was conducted safely, I noticed the airplane landed near the beginning of the threshold for the 7000 foot runway and we rolled an excessive distance with minimal braking before exiting the runway. However, I did not mention anything as the instructor since we exited taxiway Echo which is the normal taxiway I safely use when instructing in the Aircraft X Type Y. Due to limited data, I'm unable to calculate the distance to Taxiway Echo from the threshold of 26L, however, I was able to interpolate the distance to Taxiway Papa with the data with the length of Runway 26R which is 4858 feet. I can estimate the first taxiway which is Papa would be at approximately 2142 feet. I reviewed the POH charts for normal landing distance data for the Aircraft X Type X. Utilizing the current conditions, the landing roll should be approximately 1200 feet with full flaps and maximum braking. An exit at Taxiway Papa which is at 2142 feet would safely be within the POH landing roll. However, the student rolled the airplane with minimal braking to Taxiway Echo which I would estimate to be another 2000 feet giving a landing roll of over 4000 feet when only 1200 feet is needed. Of note, the ATP pilot advised that they only use a maximum of 25 degrees of flaps, not 40 degrees. After exiting the runway we contacted ground and requested to taxi back to 26L for another traffic pattern. During taxi, I discussed approach speeds and to ensure maintaining above blue line speed at all times while in the traffic pattern in case of sudden engine failure. I then advised as part of the lesson, I would reduce the left throttle after takeoff and only when above at least 500 feet AGL. I explained that I wanted to demonstrate the climb capabilities of the aircraft while having an engine at zero thrust and once we reach traffic pattern altitude, the student would be given both engines in order to conduct a normal landing. Additionally, we agreed this would be the last flight for the day. As I had briefed, after takeoff and at approximately 800 feet AGL, I reduced the power on the left engine and we climbed to traffic pattern altitude. The flight was very normal and we were cleared to land and I believe we might of even advised it would be a full stop landing. The student's approach speeds were exactly at blue line, 89 knots and the student had full control of the aircraft. Touchdown occurred a few hundred feet past the threshold and before Taxiway Papa, which is normal after a proper flare. Upon touchdown, the student immediately retracted the flaps to a zero setting and pulled back on the yoke to ensure the weight of the aircraft had transferred to the wheels. As we quickly passed Taxiway Papa and then Echo where we had last exited, the student had not yet applied any braking. It was after we passed Echo I stated "Feel free to use some brakes to help us slow down". The student then replied that the "other" pilot instructed the student to only use very minimal braking to prevent wearing the brakes. The ATP pilot also stated they normally land at their home airport ZZZ1 and always roll to the end of the runway without using brakes. As the plane continued to roll past Runway 3-21 the Chino tower instructed us to exit the runway which was due to landing traffic behind us. After clear of Runway 3-21 the student exited Taxiway Delta which is the final Taxiway prior to the end of the runway. I would estimate this was approximately a 6000 foot landing roll with no braking. Although I understand the concept behind landing and rolling long to prevent wear and tear on the braking system, I believe this landing was excessively long and also placed me in a location on the airport I had never been and was unfamiliar. As noted on the airport diagram, Taxiway Delta has a small "pie shaped" area to stop in before crossing the hold lines of Runway 3-21. I estimate this area to be only large enough to safely stop a smaller type aircraft in order to maintain clearance from both hold short lines. With the student being the sole manipulator of the controls and turning left off the runway following the inner yellow taxi way line, I was not able to see the hold short lines for Runway 3-21 since I was in the right seat and my view is obstructed. The hold short lines for Runway 3-21 are immediately off to the left side of the aircraft and at an angle that doesn't allow me to

be able to see it until the aircraft makes the turn onto Taxiway Charlie. After clearing the runway and within seconds of coming to a complete stop, we were contacted by ground control and informed that we had gone past the Runway 3-21 hold short lines without clearance. We were told to contact the tower for a possible Pilot Deviation and promptly given taxi clearance to cross Runway 3-21. Fortunately, this indicated that Runway 3-21 was not active and we did not interfere with any landing traffic or cause any further hazards. When conducting my normal multi engine flight training, I routinely go to Chino airport from ZZZ2 due to the close proximity X practice area, availability of practice precision instrument approaches but primarily due to the long and wide 26L runway which is safer for practicing single engine maneuvers. I have 23 separate flights to include solo and as an instructor in a Aircraft X Type X into or out of Chino Airport. Not one time have I exited the 26L runway past the intersection of Runway 3-21. In order to eliminate this from happening again, I will ensure that I am more familiar with all aspects of the airport to include airport diagrams. Also, I will strive to eliminate distractions from external influences such as passengers on the aircraft that might create intimidation to the pilots. I believe this was an isolated incident due to contributing factors of the student not being familiar with the aircraft and airport and pressure applied by having the ATP-rated pilot in the back creating stress which caused both the student and myself to not see the hold short lines of Runway 3-21. I was advised there is only a hold short marking painted on the ground and no flashing lights.

Narrative: 2

I completed my first official multi-engine lesson in a Aircraft X Type X. We moved the Aircraft X Type X from ZZZ1 to Chino (CNO) for the lesson. I had flown in and out of the airport multiple times that day to move the aircrafts, but was not entirely familiar with the field as I would be my own. I had a X hour ground and then an approximately X hour flying lesson, where we did air work, stalls, and some single engine work with a new instructor. At the time my instructor and I had come into the pattern to do two full stop landings. After the first landing we taxied back to takeoff and proceeded to a simulated single engine (only on downwind) landing. We took off and did one lap in the pattern. I landed and rolled long, briefed by the ATP pilot in the aircraft to go easy on the brakes when able. Tower instructed me to exit Runway 26L at the upcoming exit D. I exited the runway, making sure to clear the hold short bars since I was in a lot larger of an aircraft than I was used to. I cleaned up the airplane and went over to ground frequency. They instructed me to cross Runway 21, which they alerted me that my nose was past the hold short bars, and taxi via C to the FBO where we requested to park. I looked down and noticed my nose was in fact about a foot past the hold short bar. I repeated back the instruction and continued taxiing. Ground then advised me of the possible runway incursion and provided me with a phone number. My instructor read the number back. Upon returning to the FBO my instructor and I debriefed the event. He explained that he usually does not roll as long and that he is not as familiar with the other exits. We agreed at new airports it is important to brief an exit plan especially if I intent to roll long. We also studied the airport diagram and noted that it was not an airport hotspot and that it may be good to notify airport management about the possible confusion for other pilots. The distance between the two hold short bars is just barely enough for an Aircraft X Type X to fit and if unfamiliar it is easy to miss. Many contributing factors led to this event; both my and my instructor's unfamiliarity with CNO, me being in a new, larger aircraft, and possible fatigue from the long lesson. In the future, I plan to set aside more time to review the airport diagram and really be familiar with my possible exits before flying and especially training out of an airport.

Synopsis

Multi-engine Flight Instructor and student reported a runway incursion at CNO airport after landing on an intersecting runway. The CFI reported difficulty seeing painted markings due to the geometry of the turn when exiting. Student recommended making airport management aware of the potential for incursions due to the short distance between hold short bars and no additional lights or markings to indicate hold short.

Time / Day

Date : 202310
Local Time Of Day : 1201-1800

Place

Locale Reference.ATC Facility : ZZZ3.TRACON
State Reference : US
Relative Position.Distance.Nautical Miles : 36
Altitude.MSL.Single Value : 4000

Environment

Flight Conditions : VMC
Weather Elements / Visibility.Visibility : 10
Light : Daylight

Aircraft

Reference : X
Aircraft Operator : FBO
Make Model Name : PA-28 Cherokee/Archer/Dakota/Pillan/Warrior
Crew Size.Number Of Crew : 1
Operating Under FAR Part : Part 91
Flight Plan : IFR
Mission : Training
Flight Phase : Cruise
Route In Use : Vectors
Route In Use : Direct
Route In Use : Visual Approach
Airspace.Special Use : ZZZ

Component

Aircraft Component : AC Generator/Alternator
Aircraft Reference : X
Problem : Failed

Person

Location Of Person.Aircraft : X
Location In Aircraft : Flight Deck
Reporter Organization : FBO
Function.Flight Crew : Instructor
Function.Flight Crew : Pilot Flying
Qualification.Flight Crew : Commercial
Qualification.Flight Crew : Instrument
Qualification.Flight Crew : Multiengine
Qualification.Flight Crew : Flight Instructor
Experience.Flight Crew.Total : 288.1
Experience.Flight Crew.Last 90 Days : 85.5
Experience.Flight Crew.Type : 182.1
ASRS Report Number.Accession Number : 2046991
Human Factors : Troubleshooting

Human Factors : Situational Awareness
Human Factors : Training / Qualification

Events

Anomaly.Aircraft Equipment Problem : Critical
Detector.Automation : Aircraft Other Automation
Detector.Person : Flight Crew
When Detected : In-flight
Result.General : Maintenance Action
Result.Flight Crew : Diverted
Result.Flight Crew : Landed in Emergency Condition
Result.Air Traffic Control : Provided Assistance

Assessments

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

Narrative: 1

I, Instructor, was flying a PA-28-181 with my student, on a cross-country flight under IFR with the following route: ZZZ1 ZZZ2 ZZZ. We terminated a practice instrument approach into ZZZ2 with a touch-and-go, followed by a departure to the north to resume on-course to ZZZ. We received direct routing to ZZZZZ (the IAF for the RNAV RWY XX approach at ZZZ) with a climb up to an altitude of 4000 ft. Upon reaching this altitude, we leveled-off and put the airplane in the cruise configuration, following the checklist. About five minutes after, the "LOW BUS VOLTAGE" and "ALTERNATOR INOP" annunciators both illuminated. At this point, the ammeter read "0." My student and I promptly ran the associated checklist. This resulted in the lights being extinguished and the ammeter returning to an indication of +17 to +20 for about 30 seconds. After this, both lights illuminated again and the ammeter returned to 0. We complied with the rest of the checklist, which included shedding electrical load (exterior lights, GNS430 #2, dimming our PFD and MFD, turning off the fan, etc.). At this point, we were about 36 NM WNW of ZZZ3, and I took full control of the aircraft and elected to follow-through with a diversion to that airport. I informed ZZZ3 Approach that we were experiencing a possible alternator failure and could lose electrical power within half an hour. I stated my intentions to divert to ZZZ3 and requested direct routing. I maintained the highest forward speed that was safe at the time, so that I could attempt to make it to the airfield prior to losing battery power (and with it, radio communications). The entire diversion from that point to ZZZ3 took about 25 minutes. When I was about 11 miles away from the field, with the airport in sight, I elected to cancel our IFR flight plan with Approach, and received radar vectors for traffic, followed by clearance for a VFR descent towards the airport. I never [requested priority handling], but suspect that ATC did on our behalf. Approach inquired about the number of souls on-board and the fuel remaining (X souls and about X hours of fuel remaining). We received priority handling all the way to ZZZ3 and got cleared for a straight-in visual approach to RWY X, followed by a taxi to the ramp via TWY 1. The landing was safe, smooth, and uneventful. Upon securing the aircraft at the ramp, a gentleman from Airport Operations approached me and asked if we were flying the [priority handling] aircraft. I told him that we never [requested priority handling], but suspected that ATC did on our behalf. He asked if we were okay and if the landing was safe. I answered in the affirmative to both inquiries. He copied my name, the tail number of the aircraft we were flying, and

my phone number. The total flight time per the OUT/IN Hobbs was X.X hours (X.X hours OFF/ON). VFR conditions prevailed throughout the entire duration of our flight.

Synopsis

PA 28-181 Flight Instructor reported an alternator failure during cruise, while on a training flight. The Instructor took control of the aircraft, diverted and landed safely.

Time / Day

Date : 202310
Local Time Of Day : 1201-1800

Place

Locale Reference.Airport : ZZZ.Airport
State Reference : US
Altitude.AGL.Single Value : 800

Environment

Flight Conditions : VMC
Weather Elements / Visibility.Visibility : 8
Light : Daylight

Aircraft : 1

Reference : X
ATC / Advisory.CTAF : ZZZ
Aircraft Operator : Personal
Make Model Name : Small Aircraft, High Wing, 1 Eng, Fixed Gear
Crew Size.Number Of Crew : 1
Operating Under FAR Part : Part 91
Flight Plan : VFR
Mission : Training
Flight Phase : Landing
Route In Use : Visual Approach
Airspace.Class E : ZZZ

Aircraft : 2

Reference : Y
ATC / Advisory.CTAF : ZZZ
Make Model Name : Small Aircraft, High Wing, 1 Eng, Retractable Gear
Crew Size.Number Of Crew : 1
Operating Under FAR Part : Part 91
Flight Phase : Landing
Airspace.Class E : ZZZ

Person

Location Of Person.Aircraft : X
Location In Aircraft : Flight Deck
Reporter Organization : Personal
Function.Flight Crew : Single Pilot
Qualification.Flight Crew : Student
Experience.Flight Crew.Total : 32
Experience.Flight Crew.Last 90 Days : 28
Experience.Flight Crew.Type : 32
ASRS Report Number.Accession Number : 2046118
Human Factors : Communication Breakdown
Communication Breakdown.Party1 : Flight Crew
Communication Breakdown.Party2 : Flight Crew

Events

Anomaly.Conflict : NMAC
Detector.Person : Flight Crew
Miss Distance.Horizontal : 0
Miss Distance.Vertical : 100
When Detected : In-flight
Result.Flight Crew : Took Evasive Action

Assessments

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

Narrative: 1

As pilot-in-command of Aircraft X, was practicing touch and goes at (ZZZ) at the time of the incident. I kept my eyes on the outside during my climb out from the field and made a turn to left crosswind and downwind for Runway XX. I made an announcement on the CTAF when I turned downwind. Right after my announcement, another pilot transmitted "Aircraft X, where are you on downwind? I'm here too but don't know where you are at." In the interest of safety I announced that I was abeam the numbers XY. I continued to fly a predictable downwind leg and was nearly abeam the numbers XX when my lighting inside the flight deck changed. I glanced back to see the other aircraft, Aircraft Y, coming up on me and closing fast. I began a dive to pick up some speed and the other pilot passed above me. He then transmitted "I didn't expect you to be there, I was looking in a totally different area. I got really close" I continued to fly the rest of my traffic pattern in a predictable manner and decided that one close call was too many, and that my next landing should be the last for the day. The pilot of the other aircraft extended his downwind leg and I was able to safely bring my aircraft to the ground. I estimate that the distance between our aircraft at the closest during the near mid air collision was 100 feet.

Synopsis

Pilot reported on downwind leg taking evasive action to avoid an overtaking aircraft resulted in a NMAC.

Time / Day

Date : 202310

Local Time Of Day : 1201-1800

Place

Locale Reference.Airport : ZZZ.Airport

State Reference : US

Altitude.MSL.Single Value : 6500

Environment

Flight Conditions : VMC

Weather Elements / Visibility.Visibility : 10

Light : Daylight

Ceiling.Single Value : 12000

Aircraft : 1

Reference : X

ATC / Advisory.CTAF : ZZZ

Aircraft Operator : Personal

Make Model Name : Skyhawk 172/Cutlass 172

Crew Size.Number Of Crew : 1

Operating Under FAR Part : Part 91

Flight Plan : None

Mission : Training

Flight Phase : Initial Climb

Route In Use : Visual Approach

Airspace.Class E : ZZZ

Aircraft : 2

Reference : Y

ATC / Advisory.CTAF : ZZZ

Aircraft Operator : Personal

Make Model Name : King Air C90 E90

Crew Size.Number Of Crew : 1

Operating Under FAR Part : Part 91

Mission : Skydiving

Flight Phase : Initial Approach

Airspace.Class E : ZZZ

Person

Location Of Person.Aircraft : X

Location In Aircraft : Flight Deck

Function.Flight Crew : Single Pilot

Function.Flight Crew : Pilot Flying

Qualification.Flight Crew : Instrument

Qualification.Flight Crew : Private

Experience.Flight Crew.Total : 212

Experience.Flight Crew.Last 90 Days : 23

Experience.Flight Crew.Type : 212

ASRS Report Number.Accession Number : 2046086
Human Factors : Time Pressure
Human Factors : Situational Awareness

Events

Anomaly.Conflict : NMAC
Detector.Automation : Aircraft TA
Detector.Person : Flight Crew
Miss Distance.Horizontal : 500
Miss Distance.Vertical : 200
When Detected : In-flight
Result.Flight Crew : Took Evasive Action

Assessments

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

Narrative: 1

During a flight to complete my instrument currency, my safety pilot and I completed a landing at ZZZ to a full stop using Runway XX. After taxiing back to Runway XX we declared our intention to turn left crosswind and depart to the East. About the time we took off from RWY XX the King Air had dropped its parajumpers and declared their intention of entering the downwind on a 45 angle of entry. Another Cessna skyhawk also declared their intentions to enter the downwind on a 45 but moments later declared that they would make a right 360 to make spacing for the King air entering the downwind. At this time we could see both tracks on the TIS-B broadcast and we had visual of the other skyhawk conducting a right 360. About abeam the numbers for Runway XX in the left downwind our plane indicated a traffic advisory of a plane 200 feet above and behind to our right. At that moment I pulled the throttle to idle and pitched the plane into a descending left turn. I called out on CTAF that we diving in the downwind to avoid traffic. The King Air then declared turning left base for the runway. We were still getting traffic advisory so I banked harder left to a turn towards the north and made a radio call that the King Air was descending on us. The King air then called turning final and that we were no factor. At this point I could see them on final and began climbing back out and returning to a easterly heading.

Synopsis

A Cessna 172 pilot reported taking evasive action to avoid a skydive aircraft viewed on TIS-B broadcast resulted in a NMAC.

Time / Day

Date : 202310

Local Time Of Day : 1201-1800

Place

Locale Reference.Airport : L52.Airport

State Reference : CA

Relative Position.Angle.Radial : 014

Relative Position.Distance.Nautical Miles : 2

Altitude.MSL.Single Value : 2800

Environment

Flight Conditions : VMC

Weather Elements / Visibility.Visibility : 10

Light : Daylight

Aircraft : 1

Reference : X

ATC / Advisory.CTAF : L52

Aircraft Operator : FBO

Make Model Name : Helicopter

Crew Size.Number Of Crew : 2

Operating Under FAR Part : Part 91

Flight Plan : None

Mission : Training

Flight Phase : Cruise

Route In Use : None

Airspace.Class E : L52

Aircraft : 2

Reference : Y

ATC / Advisory.TRACON : SBA

Aircraft Operator : Air Carrier

Make Model Name : Commercial Fixed Wing

Crew Size.Number Of Crew : 2

Operating Under FAR Part : Part 121

Flight Plan : IFR

Mission : Passenger

Flight Phase : Descent

Route In Use : Visual Approach

Airspace.Class E : SBA

Person

Location Of Person.Aircraft : X

Location In Aircraft : Flight Deck

Reporter Organization : FBO

Function.Flight Crew : Instructor

Qualification.Flight Crew : Flight Instructor

Qualification.Flight Crew : Commercial

Qualification.Flight Crew : Instrument
Experience.Flight Crew.Total : 465
Experience.Flight Crew.Last 90 Days : 75
Experience.Flight Crew.Type : 413
ASRS Report Number.Accession Number : 2046072
Human Factors : Time Pressure

Events

Anomaly.Conflict : NMAC
Detector.Automation : Aircraft RA
Detector.Person : Flight Crew
Detector.Person : Air Traffic Control
When Detected : In-flight
Result.Flight Crew : Took Evasive Action

Assessments

Contributing Factors / Situations : Airspace Structure
Primary Problem : Airspace Structure

Narrative: 1

The Helicopter was on a training mission with an instructor and commercial student on board, departing SBP in a left downwind departure Runway 29 flow. The Helicopter started a climb up to 2800 feet in order to safely perform the Vortex Ring State Maneuver. As the Helicopter exited the SBP Class D airspace the frequency was changed to CTAF of the local public airport L52, as the maneuver was supposed to be executed 2NM Northeast of the airport at altitude. As the Helicopter performed its first clearing turn no traffic was observed, in the second clearing turn a regional jet was observed north west of the Helicopter performing a steep climb and left hand turn at same altitude. The Helicopter turned southbound as evasive action and descended down to 2500 and the instructor decided to continue the maneuver ca. 2NM south east of Oceano Aiport in order to stay away from additional traffic on the same flight path. The instructor was informed via telephone after landing, that the regional jet followed a TCAS RA and took evasive action and the event has been categorized as a "potentially significant" incident. Also the controller stated that they issued traffic advisories to us but we were already outside of their airspace and on a CTAF frequency, they also stated that no pilot deviation or violation is considered, the incident happened in class echo airspace.

Synopsis

Helicopter Instructor reported taking evasive action to avoid a Regional Jet who also followed an RA resulted in a NMAC.