

## ASRS Database Report Set

# General Aviation Flight Training Incidents

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

Update Number.....32.0

Date of Update .....April 30, 2019

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

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

Type of Records in Report Set.....For each update, new records received at ASRS will displace a like number of the oldest records in the Report Set, with the objective of providing the fifty most recent relevant ASRS Database records. 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. 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 amplified 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 that reads "B Hooley".

Becky L. Hooley, 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: 1622363 *(1 of 50)*

### Synopsis

C172 Instructor Pilot reported a NMAC with a twin engine jet shortly after takeoff. The jet had executed a missed approach moments before.

ACN: 1619999 *(2 of 50)*

### Synopsis

CFI reported UAV conflict in the traffic pattern area.

ACN: 1614073 *(3 of 50)*

### Synopsis

GA pilot reported the PAPI was not working properly at PUB airport.

ACN: 1614042 *(4 of 50)*

### Synopsis

PC24 Check Pilot reported the pilot in training did not comply with ATC clearance.

ACN: 1614037 *(5 of 50)*

### Synopsis

C172 Instructor reported an NMAC with another light aircraft in the pattern at AFW airport.

ACN: 1613435 *(6 of 50)*

### Synopsis

GA safety pilot reported an airborne conflict and a clearance deviation during a missed approach.

ACN: 1613382 *(7 of 50)*

### Synopsis

C172 instructor reported NMAC with transitioning aircraft while in the pattern at a non-towered field.

ACN: 1613378 *(8 of 50)*

### Synopsis

Cessna 172 instructor pilot reported an NMAC with another light aircraft in the pattern at E63.

ACN: 1612568 *(9 of 50)*

## Synopsis

Flight instructor and student reported a near NMAC while in the traffic pattern at Byron, non-towered Airport.

ACN: 1612564 *(10 of 50)*

## Synopsis

C172 flight instructor reported an engine malfunction after takeoff, which resulted in an immediate landing on the remaining runway surface.

ACN: 1611015 *(11 of 50)*

## Synopsis

C172 pilot reported a communication breakdown with a Designated Pilot Examiner resulted in an unstabilized approach to landing.

ACN: 1610789 *(12 of 50)*

## Synopsis

PA-28 pilot reported a hard landing and loss of control resulted in a runway excursion.

ACN: 1609967 *(13 of 50)*

## Synopsis

GA flight instructor reported a conflict occurred during a simulated engine failure landing at a non-towered airport.

ACN: 1609918 *(14 of 50)*

## Synopsis

GA flight instructor reported experiencing an NMAC near LAL airport.

ACN: 1609373 *(15 of 50)*

## Synopsis

C182 pilot reported a flap asymmetry problem when a flap cable failed during go-around.

ACN: 1609150 *(16 of 50)*

## Synopsis

C172 flight instructor reported an unstabilized approach by the student pilot led to a runway excursion.

ACN: 1609143 *(17 of 50)*

## Synopsis

C172 flight instructor reported an NMAC while conducting ground reference maneuvers.

ACN: 1608941 *(18 of 50)*

## Synopsis

DA40 student and flight instructor reported engine roughness led to a diversion. Later, Maintenance identified a failed fuel injector.

ACN: 1608618 *(19 of 50)*

## Synopsis

C172 pilot and flight instructor reported landing with skis resulted in a runway incursion after becoming immobile and off loading the instructor on the runway.

ACN: 1608246 *(20 of 50)*

## Synopsis

GA flight instructor reported a near mid-air collision with an aircraft departing the parallel runway.

ACN: 1607637 *(21 of 50)*

## Synopsis

Instructor pilot decided to break off approach due to close proximity of traffic at a non-towered airport airport.

ACN: 1607628 *(22 of 50)*

## Synopsis

Student and Instructor pilots reported an incident where the aircraft landed and them became uncontrollable in a skid.

ACN: 1607352 *(23 of 50)*

## Synopsis

Flight instructor reported another aircraft was observed landing in the opposite direction on the same runway, so a go around was performed to avoid a conflict.

ACN: 1607313 *(24 of 50)*

## Synopsis

GA pilot reported turning opposite direction in the pattern and then cutting off another aircraft.

ACN: 1607279 *(25 of 50)*

## Synopsis

C172 flight instructor reported a loss of aircraft control on landing rollout resulted in a runway excursion.

ACN: 1606972 *(26 of 50)*

## Synopsis

GA flight instructor reported a slight course divergence due to strong cross winds could cause a possible loss of separation. Reporter recommended the departure procedure be redesigned.

ACN: 1606493 *(27 of 50)*

## Synopsis

RV4 pilot and flight instructor reported a loss of engine power and off runway landing due to fuel leak and fuel starvation.

ACN: 1606486 *(28 of 50)*

## Synopsis

PA-28 flight instructor reported a loss of engine power due to a misaligned fuel selector led to a return to the departure airport.

ACN: 1605903 *(29 of 50)*

## Synopsis

C172 student pilot reported a loss of control during takeoff that resulted in a runway excursion and contact with a runway sign.

ACN: 1605209 *(30 of 50)*

## Synopsis

GA Instructor reported NMAC on departure with opposite direction traffic at a non-towered airport.

ACN: 1605196 *(31 of 50)*

## Synopsis

GA instructor reported an NMAC near PMV.

ACN: 1604839 *(32 of 50)*

## Synopsis

C172 student pilot reported a loss of control on final approach resulting in a landing on the taxiway.



ACN: 1604837 *(33 of 50)*

### Synopsis

PA-28 pilot reported an engine failure after takeoff led to a return to the departure airport and a hard landing.

ACN: 1604071 *(34 of 50)*

### Synopsis

Cessna 172 instructor pilot reported a NMAC with opposite direction traffic attempting to land on the same runway.

ACN: 1603772 *(35 of 50)*

### Synopsis

PA-28 flight instructor reported a critical ground conflict when an aircraft taxied onto the runway, requiring evasive action.

ACN: 1603749 *(36 of 50)*

### Synopsis

C172 flight instructor reported a loss of control and runway excursion due to student pilot induced oscillations during landing rollout.

ACN: 1603466 *(37 of 50)*

### Synopsis

PA-44 instructor pilot reported an engine failure led to a single engine approach and landing.

ACN: 1603439 *(38 of 50)*

### Synopsis

King Air Captain reported encountering severe turbulence prior to landing and then departing again prior to completion of a severe turbulence inspection.

ACN: 1602841 *(39 of 50)*

### Synopsis

C172 instructor reported experiencing a tail strike during rotation due to student pulling too hard on the yoke.

ACN: 1602821 *(40 of 50)*

### Synopsis

C172 pilot reported changing weather conditions resulted in a return to the field, multiple changes to the flight plan and operation in IMC conditions without an Instrument Rating.

ACN: 1602491 *(41 of 50)*

### Synopsis

SR20 flight instructor reported an NMAC while operating in the pattern at a non-towered airport.

ACN: 1602211 *(42 of 50)*

### Synopsis

Cessna pilot reported 5 aircraft coming in from various directions to one runway, the pilots took it upon themselves to separate from each other since ATC did not separate or sequence the traffic.

ACN: 1602192 *(43 of 50)*

### Synopsis

Pilot reported landing without clearance after ATC advised they did not report commencing a circle to land.

ACN: 1601944 *(44 of 50)*

### Synopsis

PA44 pilot reported a heading deviation when ATC was slow in providing vectors around weather.

ACN: 1601647 *(45 of 50)*

### Synopsis

Beechcraft 99 First Officer reported a loss of control and taxiway excursion during taxi.

ACN: 1601327 *(46 of 50)*

### Synopsis

C162 pilot reported contacting the wingtip of a parked aircraft during taxi to parking spot.

ACN: 1600912 *(47 of 50)*

### Synopsis

SR20 pilot reported a loss of control during landing resulted in a runway excursion and contact with a runway light.

ACN: 1600881 *(48 of 50)*

## Synopsis

PA28 instructor pilot reported the nose landing gear collapsed during landing. No abnormalities were noted prior to touchdown.

ACN: 1600875 *(49 of 50)*

## Synopsis

PA-28 student pilot reported a loss of control on landing that resulted in a runway excursion.

ACN: 1600861 *(50 of 50)*

## Synopsis

C152 student pilot reported a loss of control and runway excursion during landing on a wet runway.

# Report Narratives

## Time / Day

Date : 201902  
Local Time Of Day : 1201-1800

## Place

Locale Reference.Airport : NYL.Airport  
State Reference : AZ  
Altitude.AGL.Single Value : 600

## Environment

Flight Conditions : VMC  
Light : Daylight

## Aircraft : 1

Reference : X  
ATC / Advisory.Tower : NYL  
Aircraft Operator : FBO  
Make Model Name : Skyhawk 172/Cutlass 172  
Crew Size.Number Of Crew : 2  
Operating Under FAR Part : Part 91  
Flight Plan : IFR  
Mission : Training  
Flight Phase : Takeoff  
Route In Use.SID : MOHAK4  
Airspace.Class D : NYL

## Aircraft : 2

Reference : Y  
ATC / Advisory.Tower : NYL  
Make Model Name : Medium Transport, Low Wing, 2 Turbojet Eng  
Crew Size.Number Of Crew : 2  
Flight Plan : IFR  
Flight Phase : Final Approach  
Route In Use : Visual Approach  
Airspace.Class D : NYL

## Aircraft : 3

Reference : Z  
ATC / Advisory.Tower : NYL  
Aircraft Operator : Military  
Make Model Name : Hercules (C-130)/L100/382  
Operating Under FAR Part : Part 91  
Flight Phase : Landing

## Person

Reference : 1  
Location Of Person.Aircraft : X  
Location In Aircraft : Flight Deck  
Reporter Organization : Air Carrier  
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 : 416  
Experience.Flight Crew.Last 90 Days : 108  
Experience.Flight Crew.Type : 350  
ASRS Report Number.Accession Number : 1622363  
Human Factors : Situational Awareness

## Events

Anomaly.ATC Issue : All Types  
Anomaly.Conflict : NMAC  
Anomaly.Inflight Event / Encounter : Wake Vortex Encounter  
Detector.Person : Flight Crew  
Miss Distance.Horizontal : 0  
Miss Distance.Vertical : 400  
When Detected : In-flight  
Result.Flight Crew : Took Evasive Action  
Result.Flight Crew : Executed Go Around / Missed Approach

## Assessments

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

## Narrative: 1

My student and I were on an IFR flight plan headed back to base. We were on holding short of runway 26 at intersection K at NYL. Tower told us to line up and wait, awaiting IFR release. As we held in position, multiple C-130s, F18s, and F35s were making approaches to 21L/21R. Aircraft Y called Tower up inbound on the visual approach to Runway 26. We were told to expect an immediate departure. We acknowledged and were prepared to do so. Tower told Aircraft Y to slow to final approach speed. After what seemed like at least five minutes, maybe more, don't have exact numbers, we were cleared for takeoff. Knowing Aircraft Y was very close behind, we initiated an immediate takeoff. As we did so we passed through very obvious wake turbulence from a C-130 that had arrived on Runway 21R, one of the intersecting runways, just seconds before. As we lifted off, Aircraft Y informed Tower that they were going around because of us still being on the runway. Tower told Aircraft Y that we were clear of the runway, Aircraft Y again announced that they were still initiating a going around. Tower informed Aircraft Y that we had just started climbing out and to initiate a left downwind immediately. My student and I were watching the ADS-B traffic display as we initiated our climb and could see Aircraft Y was approaching less than a mile behind and indicating the same altitude. We leveled off at approximately 800 feet and even started a shallow descent (because we were so close to the ground) to allow Aircraft Y to climb higher than us and to avoid any further conflict. As we did so, we watched Aircraft Y pass overhead and the ADS-B traffic page showed them

400 feet above. As Aircraft Y made their left downwind turn, we were told to switch to departure. Once we were on departure frequency, the controller was advising other aircraft in the area that Tower was too busy to accept anyone for the next few minutes. The rest of the flight was uneventful. Throughout all of this, the Tower Controller seemed very task saturated with several military aircraft in the overhead pattern. At one point a C130 made a full stop landing unexpectedly which caused a fighter jet close in behind to have to go around. It seemed as if there were multiple controllers working the Tower position as well (maybe training). I think this whole situation could have been avoided a few different ways. Tower could have had us hold short of the runway while they were waiting for our IFR release. That would have freed up the runway for any other traffic (such as Aircraft Y). They probably didn't know it was going to take that long for our release though which is why they had us line up. When Aircraft Y was approaching short final, they could have told us to exit the runway back onto taxiway K or even go all the way down to taxiway L and to hold short again. Perhaps the reason for not being able to go down to taxiway L was the fact that we would have had to cross the 21R Approach safety area to do so while multiple aircraft were landing.

## Synopsis

C172 Instructor Pilot reported a NMAC with a twin engine jet shortly after takeoff. The jet had executed a missed approach moments before.

## Time / Day

Date : 201902

Local Time Of Day : 1201-1800

## Place

Locale Reference.Airport : ZZZ.Airport

State Reference : US

Altitude.AGL.Single Value : 200

## Environment

Flight Conditions : VMC

Weather Elements / Visibility.Visibility : 10

Ceiling.Single Value : 25000

## Aircraft : 1

Reference : X

ATC / Advisory.TRACON : ZZZ1

Aircraft Operator : FBO

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 : Final Approach

Route In Use : VFR Route

Airspace.Class E : ZZZ

## Aircraft : 2

Reference : Y

Aircraft Operator : Personal

Make Model Name : Cessna Aircraft Undifferentiated or Other Model

Operating Under FAR Part : Part 91

Flight Phase : Takeoff

## Aircraft : 3

Reference : Z

Aircraft Operator : Personal

Make Model Name : UAV - Unpiloted Aerial Vehicle

Crew Size.Number Of Crew : 1

Operating Under FAR Part.Other

Mission.Other

Flight Phase.Other

Airspace.Class E : ZZZ

## Person

Reference : 1

Location Of Person.Aircraft : X

Location In Aircraft : Flight Deck



Reporter Organization : FBO  
Function.Flight Crew : Pilot Not Flying  
Qualification.Flight Crew : Instrument  
Qualification.Flight Crew : Commercial  
Qualification.Flight Crew : Flight Instructor  
Qualification.Flight Crew : Multiengine  
Experience.Flight Crew.Total : 23200  
Experience.Flight Crew.Last 90 Days : 75  
Experience.Flight Crew.Type : 3500  
ASRS Report Number.Accession Number : 1619999

## Events

Anomaly.Conflict : Airborne Conflict  
Anomaly.Deviation - Procedural : FAR  
Detector.Person : Flight Crew  
When Detected : In-flight  
Result.General : None Reported / Taken

## Assessments

Contributing Factors / Situations : Airport  
Contributing Factors / Situations : Procedure  
Primary Problem : Ambiguous

## Narrative: 1

Two different drone operations from one company at the ZZZ airport were (once again) a problem. [They were] far too close to operating aircraft in the pattern at this airport. This particular event was the result of having to go around on very short final due to an airplane entering the runway directly ahead of our airplane. I asked my student what his plan was and he correctly advised and performed a go-around. I asked how he was to execute this maneuver with another Cessna rolling on takeoff almost under us. Once again, a proper reply was to offset to an upwind leg climb out and announce our intentions on CTAF. The problem (once again) is the drone (UAS) people feel it safe to operate directly in any and all airspace at the ZZZ airport, causing an unsafe environment for this far too busy airport. There's plenty of unused parking lots for drones to operate (away from airports), and I feel it just a matter of time before there will be a HUGE problem with a very likely collision or incident of trying to avoid these UAS operators. The FBO I work for at this facility is a non-pilot [and not a] flight instructor, and has no idea how unsafe an act this UAS operation causes. All of my concerns and reports to ZZZ1 ATC have resulted in no action what so ever. Hopefully, I won't need to make further reports, but rest assured that doing nothing will likely not end well with this UAS operation at ZZZ.

## Synopsis

CFI reported UAV conflict in the traffic pattern area.

## Time / Day

Date : 201901

Local Time Of Day : 1201-1800

## Place

Locale Reference.Airport : PUB.Airport

State Reference : CO

Altitude.AGL.Single Value : 0

## Aircraft

Reference : X

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 : Final Approach

Airspace.Class D : ZZZ

## Person

Reference : 1

Location Of Person.Aircraft : X

Location In Aircraft : Flight Deck

Reporter Organization : Personal

Function.Flight Crew : Single Pilot

Function.Flight Crew : Pilot Flying

ASRS Report Number.Accession Number : 1614073

Human Factors : Confusion

Human Factors : Troubleshooting

## Events

Anomaly.Inflight Event / Encounter : Other / Unknown

Detector.Person : Flight Crew

When Detected : In-flight

Result.General : None Reported / Taken

## Assessments

Contributing Factors / Situations : Airport

Contributing Factors / Situations : ATC Equipment / Nav Facility / Buildings

Primary Problem : ATC Equipment / Nav Facility / Buildings

## Narrative: 1

On approach to land on Runway 8L into PUB, I noticed that the PAPI read high and then transitioned directly to both lights on the right and the one on the far left changed to red while the second from the left stayed white. I made multiple approaches to the runway and the results were the same on every approach.

## Synopsis

GA pilot reported the PAPI was not working properly at PUB airport.

## Time / Day

Date : 201901

Local Time Of Day : 0601-1200

## Place

Locale Reference.ATC Facility : ZZZ.ARTCC

State Reference : US

Altitude.MSL.Single Value : 44300

## Environment

Flight Conditions : VMC

Light : Daylight

## Aircraft

Reference : X

ATC / Advisory.Center : ZZZ

Aircraft Operator : Personal

Make Model Name : PC-24

Crew Size.Number Of Crew : 2

Operating Under FAR Part : Part 91

Flight Plan : IFR

Mission : Training

Flight Phase : Climb

Route In Use : Direct

Airspace.Class A : ZZZ

## Person

Reference : 1

Location Of Person.Aircraft : X

Location In Aircraft : General Seating Area

Reporter Organization : Personal

Function.Flight Crew : Check Pilot

Function.Flight Crew : Instructor

Function.Flight Crew : Pilot Not Flying

Qualification.Flight Crew : Instrument

Qualification.Flight Crew : Air Transport Pilot (ATP)

Qualification.Flight Crew : Flight Instructor

Qualification.Flight Crew : Multiengine

Experience.Flight Crew.Total : 14000

Experience.Flight Crew.Last 90 Days : 200

Experience.Flight Crew.Type : 1800

ASRS Report Number.Accession Number : 1614042

Human Factors : Training / Qualification

Human Factors : Situational Awareness

## Events

Anomaly.ATC Issue : All Types

Anomaly.Deviation - Altitude : Undershoot

Anomaly.Deviation - Procedural : Clearance

Detector.Person : Flight Crew  
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 : Human Factors

## Narrative: 1

Pilot Flying was undergoing Supervised Operating Experience "Mentoring" on the Pilatus PC-24 for single pilot operations.

After checking on the pilot in the climb at FL430 and FL440 I returned to my seat in the cabin where I had a bird's eye position to watch the pilot with ATC on the overhead speaker. Pilot was climbing in PIT (PITCH) mode aware of the dangers in climbing in that mode. Many pilots like to climb in Pitch mode through FL300 as it gives the passengers a smoother ride and allows the pilot to reach cruising altitude without hunting in FLC or VS.

At FL443 I heard the Center controller yell in a DEMANDING VOICE "I need you at FL450 in 1 minute or less."

Hearing this exclamation, I ran to the flight deck to see the pilot's reaction. The Pilot Flying selected Manual Speed on the Autothrottle and dialed the speed back. (A common technique for climbing in Autothrottle FMS mode is when a controller asks you to expedite the climb you switch to Manual Speed on the Autothrottle and dial back 20-30 knots -- this will command the APFDS to pitch up exchanging airspeed for altitude); however, in this situation, the pilot didn't realize that dialing the speed back in PITCH mode would actually retard the throttles to IDLE.

The Pilot [Flying] immediately corrected for the situation; however, once the aircraft lost the energy, the plane would no longer be able to reach assigned altitude. The Controller under a lot of pressure from the government shutdown clearly took his stress on the situation that required the pilot to get to FL450 in 1 minute or less out on the Pilot Flying and hit him over and over again with radio calls task saturating the pilot. The Pilot Flying did a great job on flying the aircraft, lowering the nose to break the approaching stall, and finally when he had a minute to breathe, informed the controller he needed lower.

The pilot was ground schooled after the incident that he should of "Declared an Emergency for Safety" and told the controller of the situation.

The Pilot Flying now learned how to manage that type of situation and more importantly how to manage ATC in an emergency.

## Synopsis

PC24 Check Pilot reported the pilot in training did not comply with ATC clearance.

## Time / Day

Date : 201901

Local Time Of Day : 1201-1800

## Place

Locale Reference.Airport : AFW.Airport

State Reference : TX

Altitude.AGL.Single Value : 800

## Environment

Flight Conditions : VMC

Weather Elements / Visibility.Visibility : 10

Light : Daylight

Ceiling.Single Value : 30000

## Aircraft : 1

Reference : X

ATC / Advisory.Tower : AFW

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

Airspace.Class D : AFW

## Aircraft : 2

Reference : Y

ATC / Advisory.Tower : AFW

Make Model Name : Cessna Aircraft Undifferentiated or Other Model

Operating Under FAR Part : Part 91

Flight Phase : Initial Climb

Airspace.Class D : AFW

## Person

Reference : 1

Location Of Person.Aircraft : X

Location In Aircraft : Flight Deck

Function.Flight Crew : Instructor

Function.Flight Crew : Pilot Not Flying

Qualification.Flight Crew : Instrument

Qualification.Flight Crew : Commercial

Qualification.Flight Crew : Flight Instructor

Qualification.Flight Crew : Multiengine

Experience.Flight Crew.Total : 357

Experience.Flight Crew.Last 90 Days : 50

Experience.Flight Crew.Type : 180

ASRS Report Number.Accession Number : 1614037

Human Factors : Situational Awareness

## Events

Anomaly.Conflict : NMAC  
Detector.Person : Flight Crew  
Miss Distance.Horizontal : 300  
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

Returning from a training mission in the practice area west of the airport, we were cleared to enter the right base leg for runway 16R. We initially requested the option for which we were cleared and were instructed to make a left closed traffic pattern. We successfully performed the first touch and go and on the left downwind, we were instructed to extend our downwind leg for about five to six more 172s joining us in the pattern. After the second touch and go and on right downwind 16R for the third one, I heard the voice change on tower frequency, (suggesting to me that another controller may have taken over).

As we turned base to final for the option on Runway 16R, the controller asked us to turn crosswind. I replied by stating that we were on short final and asked for clarification. I then heard the controller ask the 172 upwind of runway 16R to identify their call sign. I heard that aircraft reply with a call sign different from ours. While all this was going on, I was instructing my student during the landing phase, roll, and take off for the third circuit in the pattern. During the climb out, I occasionally looked down through my window on the right to ensure that we were not drifting off our runway heading. At about 800 feet AGL, my student pointed down towards his left window, drawing my attention to another Cessna climbing on a parallel heading from 16L. As soon as my eyes caught the glimpse of the other aircraft, I immediately took controls and banked to the right to crosswind to increase separation. I estimated we were probably separated by about 300 to 400 feet horizontally and vertically. On downwind, I requested a full stop landing considering the volume of traffic in the pattern.

Supervisory attention on my student was divided while instructing, talking to ATC for clarification, and scanning for traffic, thus reducing my overall situational awareness. Additionally, confusion ensued over traffic location within the pattern as one controller handed over to another during a busy wave of inbound aircraft. This incident highlighted for me the need for heightened awareness around an airport and the need to keep talking to a minimum during instruction in the traffic pattern.

## Synopsis

C172 Instructor reported an NMAC with another light aircraft in the pattern at AFW airport.

## Time / Day

Date : 201901

Local Time Of Day : 0601-1200

## Place

Locale Reference.Airport : SBP.Airport

State Reference : CA

Relative Position.Distance.Nautical Miles : 2

Altitude.MSL.Single Value : 1700

## Environment

Flight Conditions : VMC

Weather Elements / Visibility.Visibility : 30

Light : Daylight

## Aircraft : 1

Reference : X

ATC / Advisory.Tower : SBP

Aircraft Operator : Personal

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 : None

Mission : Training

Flight Phase.Other

Route In Use : None

Airspace.Class D : SBP

## Aircraft : 2

Reference : Y

ATC / Advisory.Tower : SBP

Make Model Name : Helicopter

Operating Under FAR Part : Part 91

Flight Phase : Initial Climb

Airspace.Class D : SBP

## Aircraft : 3

Reference : Z

ATC / Advisory.Tower : SBP

Make Model Name : Any Unknown or Unlisted Aircraft Manufacturer

Operating Under FAR Part : Part 91

Flight Phase : Initial Approach

Airspace.Class D : SBP

## Person

Reference : 1

Location Of Person.Aircraft : X

Location In Aircraft : Flight Deck



Reporter Organization : Personal  
Function.Flight Crew : Pilot Not Flying  
Qualification.Flight Crew : Instrument  
Qualification.Flight Crew : Commercial  
Experience.Flight Crew.Total : 650  
Experience.Flight Crew.Last 90 Days : 4  
Experience.Flight Crew.Type : 600  
ASRS Report Number.Accession Number : 1613435  
Human Factors : Communication Breakdown  
Human Factors : Confusion  
Human Factors : Situational Awareness  
Human Factors : Distraction  
Communication Breakdown.Party1 : Flight Crew  
Communication Breakdown.Party2 : Flight Crew  
Communication Breakdown.Party2 : ATC

## Events

Anomaly.ATC Issue : All Types  
Anomaly.Conflict : NMAC  
Anomaly.Deviation - Track / Heading : All Types  
Anomaly.Deviation - Procedural : Clearance  
Detector.Person : Flight Crew  
Miss Distance.Horizontal : 500  
Miss Distance.Vertical : 50  
When Detected : In-flight  
Result.Flight Crew : Executed Go Around / Missed Approach  
Result.Flight Crew : Took Evasive Action

## Assessments

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

## Narrative: 1

Doing a VOR practice approach in VFR conditions to maintain proficiency, Lead Pilot with a view limiting device and the Reporting Pilot acting as safety in the right seat. Just before crossing the FAF, Approach hands us off to Tower. Tower clears us to continue the approach and then enter left downwind to land and [Lead] Pilot acknowledges. I double check with [Lead] Pilot over intercom that our intention is a missed approach and he indicates he will correct when there is a break in comms. Airport environment busier than average and we get a call for departing traffic crossing below us as we continue the descent, to which [Lead] Pilot responds "looking". I inform the [Lead] Pilot (not the Tower) that I have the traffic in sight, a helicopter following the freeway to the south. I hear Tower give a traffic advisory to the helicopter about an oncoming aircraft approaching from above (don't remember specifically, let's call it a Cirrus). I am looking for the Cirrus, but unable to see it. After the Cirrus passes over the helicopter, Tower tells them to follow us in left downwind pattern and Cirrus acknowledges we are in sight. Tower busy with other aircraft as well. Roughly three minutes after crossing the FAF we are at target altitude at the MAP, still 500 feet above pattern, and [Lead] Pilot begins missed approach. This would also have been the point we would have made a 30 degrees turn to descend into the pattern. I inform the [Lead] Pilot that we still have not radioed Tower [our]

intention to enter missed. Pilot continues to turn towards the missed heading when I finally catch sight of the close Cirrus approaching from the right, I take controls briefly to level wings so we don't turn closer to the approaching Cirrus before allowing [Lead] Pilot to resume. Tower then asks what's going on; [Lead] Pilot informs performing the missed approach, Tower chastises [Lead] Pilot for failing to inform intentions and creating a dangerous situation. I don't think the situation was dangerous, given both planes had sight of each other and avoidance was straightforward.

Takeaways:

- 1) I should have been more forceful about having the [Lead] Pilot correct intentions to the Tower.
- 2) The Cirrus told to follow us into the pattern should have given more space.
- 3) At the missed approach point, I should have insisted we continue to fly the clearance Tower had given (enter left downwind) instead of the missed approach, until we could have had a chance to radio a request.

I was focusing too much on what I thought my job was: making sure we did not fly into any airplanes or terrain, being eyes. [However], I should have also been helping offload the [Lead] Pilot workload more and insisting rules were followed.

Contributing factors were the unusually busy workload the Tower was experiencing and subsequent duty cycle of the radio making it hard to get a call through.

## Synopsis

GA safety pilot reported an airborne conflict and a clearance deviation during a missed approach.

## Time / Day

Date : 201901

Local Time Of Day : 1201-1800

## Place

Locale Reference.Airport : ZZZ.Airport

State Reference : US

Relative Position.Angle.Radial : 330

Relative Position.Distance.Nautical Miles : 8

Altitude.MSL.Single Value : 6000

## Environment

Flight Conditions : VMC

Weather Elements / Visibility.Visibility : 30

Light : Daylight

## Aircraft : 1

Reference : X

ATC / Advisory.CTAF : ZZZ

Aircraft Operator : Personal

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 Climb

Airspace.Class G : ZZZ

## Aircraft : 2

Reference : Y

Make Model Name : Skylane 182/RG Turbo Skylane/RG

Operating Under FAR Part : Part 91

Flight Phase : Cruise

Airspace.Class G : ZZZ

## Person

Reference : 1

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 : Commercial

Qualification.Flight Crew : Multiengine

Qualification.Flight Crew : Instrument

Experience.Flight Crew.Total : 3300

Experience.Flight Crew.Last 90 Days : 100

Experience.Flight Crew.Type : 500

ASRS Report Number.Accession Number : 1613382  
Human Factors : Communication Breakdown  
Communication Breakdown.Party1 : Flight Crew  
Communication Breakdown.Party2 : Flight Crew

## Events

Anomaly.Conflict : NMAC  
Detector.Automation : Aircraft TA  
Miss Distance.Horizontal : 400  
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

While climbing on departure leg, my student noted traffic on the ADS-B screen, so he was already looking when I lifted the wing preceding a turn to left cross wind for runway XX at ZZZ. We saw the 182 at our 10 o'clock position, with nearly no lateral movement against the horizon, about 800 feet away. The student saw it first at about 800 feet distance, and yelled. I saw the aircraft at about 600 feet away, and pushed the yoke hard. I estimate the other aircraft passed nearly overhead and about 200 feet above us, slightly behind us, owing to the hard push we made on the yoke. The other aircraft (whose number we got from ads-b) was not talking on frequency. Nobody else in the pattern heard him either. The other aircraft cruised through our pattern south bound, two to three hundred feet below pattern altitude. He was about 200 or so yards inside -- that is, closer to the ZZZ runway -- than ZZZ traffic usually turns crosswind. Had we not seen him, I believe he would have hit us.

## Synopsis

C172 instructor reported NMAC with transitioning aircraft while in the pattern at a non-towered field.

## Time / Day

Date : 201901  
Local Time Of Day : 0601-1200

## Place

Locale Reference.Airport : E63.Airport  
State Reference : AZ  
Altitude.MSL.Single Value : 2100

## Environment

Flight Conditions : VMC  
Weather Elements / Visibility.Visibility : 45  
Light : Daylight

## Aircraft : 1

Reference : X  
ATC / Advisory.CTAF : E63  
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 : Landing  
Airspace.Class E : E63

## Aircraft : 2

Reference : Y  
ATC / Advisory.CTAF : E63  
Make Model Name : Small Aircraft  
Crew Size.Number Of Crew : 1  
Operating Under FAR Part : Part 91

## Person

Reference : 1  
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 : Commercial  
Qualification.Flight Crew : Flight Instructor  
Qualification.Flight Crew : Instrument  
Experience.Flight Crew.Total : 331  
Experience.Flight Crew.Last 90 Days : 95  
Experience.Flight Crew.Type : 250  
ASRS Report Number.Accession Number : 1613378  
Human Factors : Situational Awareness  
Human Factors : Training / Qualification

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 : 75  
Miss Distance.Vertical : 0  
When Detected : In-flight  
Result.Flight Crew : Took Evasive Action

## Assessments

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

## Narrative: 1

My student and I were conducting a dual XC (cross-country) training flight and were coming inbound to E63 for a full stop, taxi back. We monitored CTAF and heard over that frequency that Runway 4 was in use. We planned at approximately 12 miles to the east-southeast that we would conduct a teardrop entry for left downwind Runway 4. We planned on crossing the Runway at 2100 feet, which is 500 feet above the TPA of 1600 feet. We made radio calls and broadcast our intentions every 2 miles until we were over the field.

We made visual contact with another airplane (an instructor and student) that was conducting the same entry to the traffic pattern. When [we] were approximately 2 miles out, we announced over the CTAF that we had that plane in sight and were about 1 minute to entering the traffic pattern behind him. At the same time there was another airplane using the [same] call sign [as the other aircraft, but different flight number] had been announcing that he was north of the field and would be inbound for a full stop. While we were approaching the runway at 2100 feet we heard this student pilot announce that he was coming from the north and would be entering a midfield crossing at 2100 feet and doing a teardrop and make left traffic for Runway 4. We were trying to make visual contact and were confused as to why he would be making a teardrop entry while coming from the north. Nevertheless, at this time I took over radio control and kept asking the student what his position was from the field. The other airplane ([same] call sign), was in the teardrop entry for Runway 4 said 'He is headed right for you'. At [that] time we saw the student pilot at our same altitude approximately 75 feet to the left and he was turning left. We made an abrupt steep turn to the left to avoid traffic.

After the near collision, I did announce over CTAF "[Expletive], that was close", in which the student pilot responded, "My bad, [call sign]". The student pilot continued to fly over the field at 2100 feet. He executed a 360 degree turn and flew back over the field at 2100 feet and then executed the teardrop entry for a left downwind on Runway 4. I made sure to keep visual and radio contact with Aircraft Y until my student and I were safe on the ground. We performed our landing, taxied back and departed from the area.

## Synopsis

Cessna 172 instructor pilot reported an NMAC with another light aircraft in the pattern at E63.

## Time / Day

Date : 201901

Local Time Of Day : 1201-1800

## Place

Locale Reference.Airport : C83.Airport

State Reference : CA

Altitude.MSL.Single Value : 1100

## Environment

Flight Conditions : VMC

Weather Elements / Visibility.Visibility : 10

Light : Daylight

Ceiling : CLR

## Aircraft : 1

Reference : X

ATC / Advisory.CTAF : C83

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 Approach

Airspace.Class E : NCT

## Aircraft : 2

Reference : Y

ATC / Advisory.CTAF : C83

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

Operating Under FAR Part : Part 91

Flight Phase : Initial Approach

Airspace.Class E : NCT

## Person : 1

Reference : 1

Location Of Person.Aircraft : X

Location In Aircraft : Flight Deck

Reporter Organization : Personal

Function.Flight Crew : Instructor

Qualification.Flight Crew : Instrument

Qualification.Flight Crew : Commercial

Qualification.Flight Crew : Flight Instructor

Experience.Flight Crew.Total : 465

Experience.Flight Crew.Last 90 Days : 46

Experience.Flight Crew.Type : 153

ASRS Report Number.Accession Number : 1612568

Human Factors : Communication Breakdown

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

## Person : 2

Reference : 2  
Location Of Person.Aircraft : Y  
Location In Aircraft : Flight Deck  
Reporter Organization : FBO  
Function.Flight Crew : Pilot Flying  
Function.Flight Crew : Single Pilot  
Qualification.Flight Crew : Private  
Experience.Flight Crew.Total : 590  
Experience.Flight Crew.Last 90 Days : 21  
Experience.Flight Crew.Type : 590  
ASRS Report Number.Accession Number : 1613852  
Human Factors : Situational Awareness

## Events

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

## Narrative: 1

I experienced a near midair collision in the vicinity of Byron Airport (C83) in Byron, California. I was operating a C172 in the right closed traffic pattern for runway 30 at Byron. While in the right downwind abeam the 30 numbers, I initiated my descent for the approach to landing, where I discovered that another aircraft was actually directly underneath my aircraft (the other aircraft was also on downwind, but at an altitude approximately 200 feet below me and slightly ahead of me). I was operating at 1100 feet MSL. I promptly stopped my descent, while keeping the aircraft in sight, maneuvered away from the other aircraft to allow adequate separation before coming in for my landing.

During the entire approach, I was able to keep the aircraft in sight. After the landing, I made a full stop and taxi back where I tried to get the full registration of the aircraft. My student told me the registration, but I personally could not confirm this. The aircraft was using call sign "Aircraft Y" on the CTAF, which I heard myself. The airplane appeared to be a low-wing, single engine propeller plane. The airplane was last seen taxiing to the hangar area at Byron airport, where I elected not to follow them.

I was at Byron airport with a student practicing landings in the traffic pattern. We were making regular position reports on the CTAF of 123.05. At the time, there were a significant amount of air traffic in the vicinity of Byron, including glider towing and parachute operations. The CTAF was noticeably congested, particularly with traffic calls from other airports. While I was on right downwind to runway 30, I was aware there was 1



other airplane in the traffic pattern ahead of me, because I had heard their radio calls and could visually see them. At some time, Aircraft Y reported they were on a right base to runway 30.

Almost immediately, another aircraft (whose tail number I cannot remember) responded on the CTAF by saying that they were also on right base to runway 30 and asked for Aircraft Y's specific location. I cannot remember the response on the CTAF. At the same time, I did not see a second aircraft on the base leg. A few moments later, I made a radio call announcing that I was on right downwind for runway 30, and almost immediately Aircraft Y responded by announcing that they were also on right downwind for runway 30. I was confused because I was sure I heard that aircraft call on base just a few moments ago. I pitched the nose down to initiate my descent, and visually saw Aircraft Y barely in front of me, about 200 feet below me. I immediately took evasive action. I stopped the descent and navigated my airplane outside of Aircraft Y's flight path to the runway.

At the time of the incident, weather was VFR with generally good visibility and ceilings. I had obtained the minute weather at Byron prior to entering the traffic pattern. Winds were calm.

I believe the cause of the incident was Aircraft Y's decision to operate at an altitude below the TPA of 1,000 ft. above airport elevation. Additionally, I believe that Aircraft Y's radio call that they were on base was not accurate and led to confusion about the aircraft's actual position.

## Narrative: 2

I was not aware there was a problem until contacted 5 days later I was landing at Byron airport CA (C83). As usual I announced 45 degree to 30 followed by downwind call, base call, final call and clear of runway 30 to taxi. I did hear and monitor other aircraft in the vicinity however no one announced they were in a downwind for 30. I was not informed on the radio before or after said incident nor did anyone inform me at anytime on the radio. I have not been told where he was relative to me so I don't know what the right of way criteria was. Basically the problem I see was a lack of communication on the radio in the traffic pattern on that day. I know I gave often and clear position calls all the way in. Also the lack of information afforded me is another issue as I can't understand the circumstances that I was unaware of.

## Synopsis

Flight instructor and student reported a near NMAC while in the traffic pattern at Byron, non-towered Airport.

## Time / Day

Date : 201901  
Local Time Of Day : 0601-1200

## Place

Locale Reference.Airport : ZZZ.Airport  
State Reference : US  
Altitude.AGL.Single Value : 50

## Environment

Flight Conditions : VMC  
Light : Daylight

## Aircraft

Reference : X  
ATC / Advisory.Tower : 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 : Takeoff  
Route In Use.Other  
Airspace.Class D : ZZZ

## Component

Aircraft Component : Engine  
Aircraft Reference : X  
Problem : Malfunctioning

## Person

Reference : 1  
Location Of Person.Aircraft : X  
Location In Aircraft : Flight Deck  
Reporter Organization : FBO  
Function.Flight Crew : Instructor  
Qualification.Flight Crew : Instrument  
Qualification.Flight Crew : Commercial  
Qualification.Flight Crew : Flight Instructor  
Experience.Flight Crew.Total : 1099  
Experience.Flight Crew.Last 90 Days : 241  
Experience.Flight Crew.Type : 683  
ASRS Report Number.Accession Number : 1612564

## 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 in Emergency Condition

Result.Flight Crew : Took Evasive Action

## Assessments

Contributing Factors / Situations : Aircraft

Primary Problem : Aircraft

## Narrative: 1

Student was performing a soft field takeoff at ZZZ. Upon leaving ground effect to begin the takeoff climb out (approximately 50-100' AGL), the engine became significantly rough, shaking and making a loud banging noise. I determined the aircraft not safe for flight and took over controls, reduced power to idle, informed ZZZ tower of the engine problem, and that I intended to make an immediate landing. I landed the plane on the remaining runway, and applied hard braking, bringing the aircraft to a safe speed prior to the end of the runway. Flight terminated.

## Synopsis

C172 flight instructor reported an engine malfunction after takeoff, which resulted in an immediate landing on the remaining runway surface.

## Time / Day

Date : 201901

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

Reference : X

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

## Person

Reference : 1

Location Of Person.Aircraft : X

Location In Aircraft : Flight Deck

Reporter Organization : FBO

Function.Flight Crew : Pilot Flying

Qualification.Flight Crew : Commercial

Qualification.Flight Crew : Flight Instructor

Qualification.Flight Crew : Multiengine

Experience.Flight Crew.Total : 236

Experience.Flight Crew.Last 90 Days : 31

Experience.Flight Crew.Type : 82

ASRS Report Number.Accession Number : 1611015

Human Factors : Training / Qualification

Human Factors : Communication Breakdown

Communication Breakdown.Party1 : Flight Crew

Communication Breakdown.Party2 : Flight Crew

## Events

Anomaly.Flight Deck / Cabin / Aircraft Event : Other / Unknown

Anomaly.Deviation - Procedural : Published Material / Policy

Anomaly.Inflight Event / Encounter : Unstabilized Approach

Detector.Person : Flight Crew

When Detected : In-flight

Result.General : None Reported / Taken

## Assessments

Contributing Factors / Situations : Human Factors

Primary Problem : Human Factors

### Narrative: 1

I was conducting a CFI single engine add on with a local DPE (Designated Pilot Examiner). ZZZ was extremely busy and using LAHSO (Land and Hold Short) rules for RWY XX and RWY XY. We were probably on the ground for close to thirty minutes before we were cleared to taxi to the run up area and another thirty minutes before we were cleared to takeoff. For the final maneuver of the check ride, the examiner asked for a power off 180 landing to RWY XX. He was directing me throughout the entire maneuver (when to turn base, what airspeed to hold, how much bank to use, when to deploy flaps, etc.) and his instruction led me to a very high final approach altitude. I stated, "We need to go around, we are too high." I was scared we would break the hold short lines for RWY XY. He replied with, "We are not going around; I do not want to get stuck up here for another hour." Trusting in his judgement as a DPE and giving in to the politics of student pilot vs DPE, I continued to land and as I thought, we landed very far down the runway. We did land and stopped completely before RWY XY. Once in contact with Ground, they issued me a phone number for a possible pilot deviation. Myself and the DPE spoke to Tower on the phone. I was put in a very difficult situation between trusting my inner judgment or trusting the advice of a seasoned DPE, who denied my request to be conservative/safe and simply go around. This experience has taught me that a pilot can always go around and I am truly sorry for not exercising that right. As I stated, I let the politics of "the DPE is always right" cloud my inner judgment and was scared to act against him. I will use this experience to teach the importance of a "go around" to future pilots, and to always lean on the safe side of flight.

### Synopsis

C172 pilot reported a communication breakdown with a Designated Pilot Examiner resulted in an unstabilized approach to landing.

## Time / Day

Date : 201901

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 : 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 : Landing

Route In Use : None

Airspace.Class D : ZZZ

## Aircraft : 2

Reference : Y

ATC / Advisory.Tower : ZZZ

Make Model Name : Any Unknown or Unlisted Aircraft Manufacturer

Airspace.Class D : ZZZ

## Person

Reference : 1

Reporter Organization : FBO

Function.Flight Crew : Single Pilot

Qualification.Flight Crew : Student

Experience.Flight Crew.Total : 48

Experience.Flight Crew.Last 90 Days : 44

Experience.Flight Crew.Type : 48

ASRS Report Number.Accession Number : 1610789

Human Factors : Distraction

Human Factors : Time Pressure

Human Factors : Situational Awareness

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

## Narrative: 1

While waiting for takeoff, I was advised to make a quick takeoff as there were five other aircraft in the traffic pattern and four inbound for ZZZ. I was also notified there were other aircraft in the traffic pattern with call signs similar to my own. Shortly after rotating, a pilot of Aircraft Y requested priority handling. I was advised to inform ATC once I was midfield on my downwind leg. As I flew downwind and approached midfield, ATC was communicating heavily with Aircraft Y that requested priority handling. I continued to fly the downwind past midfield, beyond my abeam point and past another aircraft on final. Once ATC finished communicating with the Aircraft Y, I informed them I was beyond my abeam point on my downwind leg. ATC then told me to immediately turn base and that I was cleared to land on Runway XX. I continued on my base leg and then turned final for Runway XX. I was on a stabilized glide path toward the runway with an airspeed around 70 KIAS. As I flew over the numbers I proceeded to land. My initial contact with the surface was hard and my aircraft slightly bounced up into the air. Upon second contact with the ground, the right wheel touched down before the left, and the aircraft began to veer to the right. I applied brakes, but inadvertently over-corrected with the right rudder. This caused the aircraft to quickly turn right and roll off the runway. Once the aircraft came to a complete stop, ATC asked me if I could get back onto a taxiway and proceed to the wash ramp. I confirmed I was able to do so and made my way back toward the [FBO] ramp.

## Synopsis

PA-28 pilot reported a hard landing and loss of control resulted in a runway excursion.

## Time / Day

Date : 201901

Local Time Of Day : 1201-1800

## Place

Locale Reference.Airport : ZZZ.Airport

State Reference : US

Altitude.AGL.Single Value : 700

## Environment

Flight Conditions : VMC

Light : Daylight

## Aircraft : 1

Reference : X

ATC / Advisory.UNICOM : 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

## Aircraft : 2

Reference : Y

Aircraft Operator : Personal

Make Model Name : Small Aircraft

Operating Under FAR Part : Part 91

Mission : Personal

Flight Phase : Takeoff

## Person

Reference : 1

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 : Commercial

Qualification.Flight Crew : Instrument

Experience.Flight Crew.Total : 7600

Experience.Flight Crew.Last 90 Days : 35

Experience.Flight Crew.Type : 3000

ASRS Report Number.Accession Number : 1609967

Human Factors : Communication Breakdown



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

## Events

Anomaly.Conflict : Ground Conflict, Critical  
Anomaly.Deviation - Procedural : Published Material / Policy  
Anomaly.Deviation - Procedural : FAR  
Detector.Person : Flight Crew  
Miss Distance.Horizontal : 100  
Miss Distance.Vertical : 90  
When Detected : In-flight  
Result.Flight Crew : Took Evasive Action

## Assessments

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

## Narrative: 1

As a CFI, I flew with a private pilot at ZZZ airport to conduct the candidate's flight review. We were flying a Cessna 172. At our last takeoff and landing, we departed from Runway XY and as we flew through 700 feet MSL, I asked the candidate what he would do if the engine failed on takeoff at 700 feet. The candidate responded by stating his plan to turn around and land on Runway X. To simulate an engine failure, I reduced the throttle to idle, told the candidate he had lost his engine, and I announced on the UNICOM frequency our intentions. Over UNICOM, I described our intentions as a "simulated engine failure, landing Runway X, ZZZ." Neither I nor the candidate heard anyone on the UNICOM frequency announce intentions of taking the active or back taxiing on the runway. Upon reaching the target (the end of Runway X), the candidate and I noticed what appeared to be an aircraft at the end of Runway XY. We were at the end of Runway X at this point and I approximate that we were 25 to 50 feet AGL. I took over the controls and initiated a go-around, sidestepping to the left in order to keep in sight the aircraft on the ground. At mid-field, during our go-around, I noticed the other aircraft initiate its takeoff. We climbed back into the pattern, then landed uneventfully. There were no radio transmissions from the other aircraft. When we were back on the ground, I asked the Dispatcher at the airport office if he had heard any transmissions from the other aircraft. The Dispatcher confirmed that he had heard none. In re-living this incident, I am unable to identify a failure in our aviating or communicating. The one mistake I identified in retrospect is my failure to note the expiration of my medical certificate. My medical certificate had expired four days before the flight. I have since renewed my medical certificate.

## Synopsis

GA flight instructor reported a conflict occurred during a simulated engine failure landing at a non-towered airport.

## Time / Day

Date : 201801  
Local Time Of Day : 1801-2400

## Place

Locale Reference.Airport : LAL.Airport  
State Reference : FL  
Relative Position.Angle.Radial : 180  
Relative Position.Distance.Nautical Miles : 12  
Altitude.AGL.Single Value : 2500

## Environment

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

## Aircraft : 1

Reference : X  
Aircraft Operator : FBO  
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 : Cruise  
Airspace.Class E : TPA

## Aircraft : 2

Reference : Y  
Make Model Name : Any Unknown or Unlisted Aircraft Manufacturer  
Airspace.Class E : TPA

## Person

Reference : 1  
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 : Instrument  
Qualification.Flight Crew : Commercial  
Qualification.Flight Crew : Flight Instructor  
Qualification.Flight Crew : Multiengine  
Experience.Flight Crew.Total : 850  
Experience.Flight Crew.Last 90 Days : 240  
Experience.Flight Crew.Type : 300  
ASRS Report Number.Accession Number : 1609918  
Human Factors : Situational Awareness

## Events

Anomaly.Conflict : NMAC  
Detector.Person : Flight Crew  
Miss Distance.Horizontal : 20  
Miss Distance.Vertical : 100  
When Detected : In-flight  
Result.General : None Reported / Taken

## Assessments

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

## Narrative: 1

I was on an instructional flight with my student. We were level, headed southbound in slow flight, when I saw a flash that looked like a strobe light. This caught my attention because our aircraft does not have strobe lights. When I started to look, this is when the passing aircraft overflew us from the 3 o'clock to the 9 o'clock (west to east). By the time the aircraft was overhead/past us, there was no evasive action that could have been taken. At the time I was not talking to Flight Following or Lakeland Tower.

## Synopsis

GA flight instructor reported experiencing an NMAC near LAL airport.

## Time / Day

Date : 201901  
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 : 500

## Environment

Flight Conditions : VMC  
Weather Elements / Visibility.Visibility : 30  
Light : Daylight  
Ceiling.Single Value : 18000  
RVR.Single Value : 10000

## Aircraft

Reference : X  
ATC / Advisory.Tower : ZZZ  
Aircraft Operator : Personal  
Make Model Name : Skylane 182/RG Turbo Skylane/RG  
Crew Size.Number Of Crew : 2  
Operating Under FAR Part : Part 91  
Flight Plan : None  
Mission : Training  
Flight Phase : Climb  
Route In Use : None  
Airspace.Class C : ZZZ

## Component

Aircraft Component : Flap/Slat Control System  
Aircraft Reference : X  
Problem : Malfunctioning

## Person

Reference : 1  
Location Of Person.Aircraft : X  
Location In Aircraft : Flight Deck  
Reporter Organization : Personal  
Function.Flight Crew : Pilot Flying  
Qualification.Flight Crew : Commercial  
Qualification.Flight Crew : Multiengine  
Experience.Flight Crew.Total : 1369  
Experience.Flight Crew.Last 90 Days : 5  
Experience.Flight Crew.Type : 499  
ASRS Report Number.Accession Number : 1609373  
Human Factors : Communication Breakdown  
Human Factors : Distraction

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

## Events

Anomaly.Aircraft Equipment Problem : Less Severe  
Anomaly.ATC Issue : All Types  
Detector.Person : Flight Crew  
When Detected : In-flight  
Result.Flight Crew : Landed in Emergency Condition  
Result.Air Traffic Control : Provided Assistance

## Assessments

Contributing Factors / Situations : Aircraft  
Primary Problem : Aircraft

## Narrative: 1

I was flying with an instructor for recurrency check and earn WINGS credits. We departed ZZZ, flew instrument approaches and conducted landings at two other nearby airports, and conducted maneuvers in a practice area. Flaps were deployed and retracted several times during this portion of the flight. We were returning to ZZZ to perform several landings.

We were assigned Runway XX and I set-up for a short-field landing with 30 degrees of flaps. A few feet above the ground, the instructor called for a go-around. I applied full power, set the flaps control to 20 degrees, and pitched up to climb. After establishing a positive rate of climb, I retracted the landing gear and raised the flaps control to 10 degrees and then zero degrees.

We heard a loud bang from the left side of the aircraft. I looked left and saw that the left flap was still down. I looked right and saw that the right flap was fully retracted. I continued to fly the airplane and explicitly [advised ATC] on the Tower frequency and also said we had asymmetrical flaps. I continued to fly a right pattern. I considered, but rejected, the idea of attempting to lower the right flap since the plane was controllable and there was no telling what trying to reconfigure the flaps might do to controllability or to structural integrity.

As we began to level-off and increase airspeed, I noticed much more left aileron was required to prevent the airplane from rolling right. In the meantime, the Tower Controller cleared us to land on Runway XX, number two behind another aircraft. My instructor told me to fly a wide pattern so that I could make shallow-banked turns to return for landing. He also suggested using rudder to help relieve aileron pressure even if that meant being slightly uncoordinated. I maintained higher than normal airspeed on short final and bled-off the excess airspeed in ground effect before touching down on the long runway. The adverse control pressure lessened as airspeed was reduced.

I was surprised not to see any emergency vehicles. As we were rolling-out, the Tower Controller asked if we needed assistance. I said we no longer needed help now that we were on the ground. We proceeded to taxi normally to parking.

Preliminary inspection of the aircraft indicated that a left flap roller got caught slightly off-

track during retraction and jammed. The source of the loud bang was likely the motor continuing to operate and a cable snapping. The flap still appeared to be in the full down position so it's likely the incremental retractions from 20 to 10 degrees and 10 to zero degrees overstressed the cable with the flap unable to retract from 30 degrees.

Personnel from Airport Operations stopped by to check on us and to apologize for the lack of response. They did not receive direct notice from the control tower. Similarly, someone from the Airport Fire Department later telephoned me to apologize for not responding explaining that they also had not been informed until after it was over.

Some lessons learned:

- 1) Just like a pilot should visually confirm (if possible) the landing gear status has changed when actuating the gear switch, a pilot should also visually confirm (if possible) the flaps have moved when actuating the flap switch. That might have prevented me from continuing to attempt to incrementally raise the flaps and over stress the cable.
- 2) Mechanics should ensure during inspections that the flap motor will stop before the cable breaks.
- 3) Controllers must take it seriously when a pilot [advised the situation].
- 4) I shouldn't have mentioned asymmetrical flaps without also mentioning possible controllability failure since that may have confused the controller.
- 5) I should have asked to land number one instead of settling for number two to ensure that the runway would be clear of preceding traffic in case the previous airplane came to a stop on the runway.
- 6) Perhaps I should have asked for runway XY since it is wider than XX and would've lessened the probability of running off the side of the runway if I needed to use excessive rudder pressure or excessive airspeed to land the aircraft.
- 7) Two qualified pilots with an understanding of CRM certainly lessens the workload as I was able to concentrate on controlling the aircraft while the instructor was able to focus on situational awareness.

## Synopsis

C182 pilot reported a flap asymmetry problem when a flap cable failed during go-around.

## Time / Day

Date : 201901

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

Weather Elements / Visibility.Other

Light : Daylight

Ceiling.Single Value : 9000

## Aircraft

Reference : X

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

## Person

Reference : 1

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 : Instrument

Qualification.Flight Crew : Commercial

Qualification.Flight Crew : Flight Instructor

Experience.Flight Crew.Total : 678

Experience.Flight Crew.Last 90 Days : 176

Experience.Flight Crew.Type : 430

ASRS Report Number.Accession Number : 1609150

Human Factors : Training / Qualification

## Events

Anomaly.Ground Excursion : Runway

Anomaly.Ground Event / Encounter : Loss Of Aircraft Control

Anomaly.Inflight Event / Encounter : Unstabilized Approach

Detector.Person : Flight Crew

When Detected : In-flight

Result.Flight Crew : Regained Aircraft Control

## Assessments

Contributing Factors / Situations : Environment - Non Weather Related

Contributing Factors / Situations : Human Factors

Contributing Factors / Situations : Weather

Primary Problem : Human Factors

## Narrative: 1

The incident occurred during a training flight on the final leg of our approach to landing. My student was manipulating the controls. He is currently fine tuning his landings. We were a little high and a little fast. I told him to bring the throttle to idle to return to glide path and pitch for final speed. He complied. As we continue the descent, we were on glide path and still a little fast. As we transitioned into the flare it became obvious that we were not going to be able to touchdown and bring the airplane to a stop before the end of the runway. I was concerned that if at that point we executed a go-around that we would hit the trees on the departure end of the runway. I decided to continue with the landing with the potential to overrun the runway instead of attempting the go-around. I immediately took the flight controls from my student and forced the plane on the ground and applied maximum braking. The plane came to a stop in the mud just past the end of the runway. We exited the aircraft then removed it from the mud and inspected for damage. The plane and its occupants were uninjured.

## Synopsis

C172 flight instructor reported an unstabilized approach by the student pilot led to a runway excursion.



## Time / Day

Date : 201901

Local Time Of Day : 0601-1200

## Place

Locale Reference.Airport : ZZZ.Airport

State Reference : US

Relative Position.Angle.Radial : 326

Relative Position.Distance.Nautical Miles : 13

Altitude.AGL.Single Value : 1000

## Environment

Flight Conditions : VMC

Light : Daylight

## 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

Flight Plan : None

Mission : Training

Route In Use : None

Airspace.Class G : ZZZ

## Aircraft : 2

Reference : Y

Make Model Name : Cessna Aircraft Undifferentiated or Other Model

Operating Under FAR Part : Part 91

Mission : Training

Flight Phase : Cruise

Route In Use : None

## Person

Reference : 1

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 : Multiengine

Qualification.Flight Crew : Instrument

Experience.Flight Crew.Total : 454

Experience.Flight Crew.Last 90 Days : 130

Experience.Flight Crew.Type : 380

ASRS Report Number.Accession Number : 1609143

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

## Events

Anomaly.Conflict : NMAC  
Anomaly.Deviation - Procedural : Published Material / Policy  
Detector.Person : Flight Crew  
Miss Distance.Horizontal : 300  
Miss Distance.Vertical : 400  
When Detected : In-flight  
Result.Flight Crew : Took Evasive Action

## Assessments

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

## Narrative: 1

I was demonstrating how to perform the Turns-around-a-point maneuver to both of my Students. We had completed our pre-maneuver flow and made a radio call announcing our intention to perform Ground Reference Maneuvers within the vicinity of [two] practice area checkpoints. I then proceeded to descend from 1,700 AGL to 1,000 AGL and began demonstrating Turns-around-a-point. As half the maneuver was completed, my backseat student called out a Cessna to our 7-8 o'clock approaching us from below. I aborted the maneuver and proceeded to climb, the conflicting traffic was then at our 9 o'clock, and at an approximate altitude of 500-600 AGL, passing right below us.

I heard no other radio calls indicative of someone operating within the same area, or heading towards the area I was operating. A company aircraft made a radio call immediately after the event, stating a position and direction that seemed coincident with where the conflicting traffic would be after the event had occurred. I was unable to verify if they were the encountered traffic, as they had not stated their altitude. No one else had mentioned the occurrence over the practice area frequency. I believe that a lapse in communication contributed to this event.

## Synopsis

C172 flight instructor reported an NMAC while conducting ground reference maneuvers.

## Time / Day

Date : 201901

Local Time Of Day : 1201-1800

## Place

Locale Reference.Airport : ZZZ.Airport

State Reference : US

Altitude.MSL.Single Value : 3000

## Environment

Flight Conditions : Mixed

Weather Elements / Visibility.Visibility : 10

Light : Dusk

## Aircraft

Reference : X

ATC / Advisory.TRACON : ZZZ

Aircraft Operator : FBO

Make Model Name : DA40 Diamond Star

Crew Size.Number Of Crew : 2

Operating Under FAR Part : Part 91

Flight Plan : IFR

Mission : Training

Flight Phase : Initial Approach

Route In Use : Vectors

Airspace.Class E : ZZZ

## Component : 1

Aircraft Component : Engine

Aircraft Reference : X

Problem : Malfunctioning

## Component : 2

Aircraft Component : Injector

Aircraft Reference : X

Problem : Failed

## Person : 1

Reference : 1

Location Of Person.Aircraft : X

Location In Aircraft : Flight Deck

Reporter Organization : FBO

Function.Flight Crew : Pilot Flying

Qualification.Flight Crew : Instrument

Qualification.Flight Crew : Commercial

Experience.Flight Crew.Total : 267

Experience.Flight Crew.Last 90 Days : 110

Experience.Flight Crew.Type : 96

ASRS Report Number.Accession Number : 1608941  
Analyst Callback : Completed

## Person : 2

Reference : 2  
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  
Experience.Flight Crew.Total : 949  
Experience.Flight Crew.Last 90 Days : 200  
Experience.Flight Crew.Type : 200  
ASRS Report Number.Accession Number : 1608942

## Events

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

## Assessments

Contributing Factors / Situations : Aircraft  
Primary Problem : Aircraft

## Narrative: 1

25 Nautical Mile from ZZZ on an IFR flight plan receiving vectors to final for the ILS approach into ZZZ the aircraft began to experience engine roughness. The engine instrumentation page indicated upon review shortly after the engine roughness that cylinder 3 had failed and shortly after that indication cylinder 4 had significantly lower EGT and CHT than 1 and 2. Shortly after that cylinder 4 began to perform normally. At this time we [advised ATC] and was receiving vectors to the nearest airport which was ZZZ1. Approximately 10 NM away from ZZZ1 the number 1 cylinder gave the same indications as the number 3 as in no EGT and CHT accompanied by further roughness produced by the engine. At this time the aircraft with maximum power applied the aircraft was struggling to maintain airspeed and altitude. Upon landing at ZZZ1 and parking the aircraft the engine died upon the closing of the throttle, which is the first item in the Shutdown Checklist given by the POH. No further incident.

## Callback: 1

Reporter indicated that maintenance discovered a failed #3 cylinder fuel injector.

## Narrative: 2

25 nm from ZZZ on IFR flight plan with TRACON vectors for the ILS when engine roughness. Engine gauges showed loss of cylinder 3 and then cylinder 4. Cylinder 4 came back after 30 seconds. [Requested vectors] to the closest airport 9 nm away ZZZ1. Ran through engine roughness checklist and no changes. Lost cylinder 1; full throttle and hard

to maintain 2,500 and 90 knots. Landed straight in ZZZ1. When throttle pulled to idle after clear of runway engine shut down. No interference with any other traffic during event.

## Synopsis

DA40 student and flight instructor reported engine roughness led to a diversion. Later, Maintenance identified a failed fuel injector.

## Time / Day

Date : 201901

Local Time Of Day : 1201-1800

## Place

Locale Reference.Airport : ZZZ.Airport

State Reference : US

## Environment

Weather Elements / Visibility : Fog

Weather Elements / Visibility.Visibility : 10

Ceiling.Single Value : 500

## 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 : None

Mission : Training

Flight Phase : Landing

Route In Use : Visual Approach

Airspace.Class C : ZZZ

## Person : 1

Reference : 1

Location Of Person.Aircraft : X

Location In Aircraft : Flight Deck

Reporter Organization : Personal

Function.Flight Crew : Single Pilot

Qualification.Flight Crew : Private

Experience.Flight Crew.Total : 2500

Experience.Flight Crew.Last 90 Days : 5

Experience.Flight Crew.Type : 2000

ASRS Report Number.Accession Number : 1608618

Human Factors : Communication Breakdown

Communication Breakdown.Party1 : Flight Crew

Communication Breakdown.Party2 : ATC

## Person : 2

Reference : 2

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 : Instrument

Qualification.Flight Crew : Flight Instructor  
Qualification.Flight Crew : Multiengine  
Qualification.Flight Crew : Air Transport Pilot (ATP)  
Experience.Flight Crew.Total : 20000  
Experience.Flight Crew.Last 90 Days : 5  
Experience.Flight Crew.Type : 4000  
ASRS Report Number.Accession Number : 1608632  
Human Factors : Communication Breakdown  
Communication Breakdown.Party1 : Flight Crew  
Communication Breakdown.Party2 : ATC

## Events

Anomaly.ATC Issue : All Types  
Anomaly.Deviation - Procedural : Published Material / Policy  
Anomaly.Deviation - Procedural : FAR  
Anomaly.Ground Incursion : Runway  
Anomaly.Ground Event / Encounter : Other / Unknown  
Detector.Person : Air Traffic Control  
When Detected : Taxi  
Result.Flight Crew : Became Reoriented  
Result.Air Traffic Control : Issued Advisory / Alert

## Assessments

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

## Narrative: 1

While Flying into ZZZ on a special VFR clearance. I was handed over to ZZZ Tower by Approach Control. I contacted the Tower reporting my position. I was asked if I was landing on the lake or strip. I advised I was landing on the strip and had the current ATIS advising [that] the strip was okay for SKI equipped aircraft. My plane is equipped with 3 straight skis. I also advised I would be discharging a passenger and wanted to depart out of the control zone. I received approval to land. On final, I asked Tower again if the runway was good for ski equipped aircraft. It appeared some sections were ice covered and the edges quite dark. Tower replied affirmative. I touched down and rolled (slid) out to approx. mid field and came to a stop on bare gravel. The airplane was stopped mid field without any ability to move. My passenger exited the plane and started to rock my wings while I applied power to try to relocate. The aircraft was not moving due to being on bare gravel and having 3 skis. My passenger exited the 50 feet to my left and was walking away when the Tower told me I had a pilot deviation and needed to call the Tower. Using full power and rocking the plane with all I had, the plane slid and hopped to the apron and on ice. I shutdown the aircraft and called the Tower on the phone. I was told I had unlawfully discharged a passenger on an active runway and the airport police were on the way. I explained the passenger only was outside the plane to help me get it moving but was told to remain where I was and the airport police were on their way. I told the Tower the runway was plowed to bare gravel and was not OK for skis and was told that was an Airport Maintenance issue and had nothing to do with the Tower. I watched the airport police drive by and disappear down the road and watched an Airport Maintenance vehicle appear and drive the full length of the runway and disappear off the apron and depart the

area. I again called the Tower to tell them I was waiting for the police and was advised they had already talked to me. I had talked to my passenger and no one else. I called the Tower again on the phone again and asked if I could get a clearance out of the control zone to the north and was advised it would be VFR in 2 minutes. I reboarded the aircraft and after obtaining clearance I departed on the small patch of snow remaining.

## Narrative: 2

After a routine flight to conduct a flight review for a private pilot/owner acting as PIC (pilot in command), we returned to land at our departure airport. They had gone to low IFR with a fog bank over the airport, however ZZZ was reporting 500-10, and at 2500 feet we had the field in sight from a distance of approximately five miles.

After switching from Approach to ZZZ Tower and being cleared to land on the gravel strip, the PIC advised that he would be stopping on the runway. The Tower advised the pilot to report clear. The reason for the stop was to disembark the Flight Instructor, since the plane was on skis with a nose-wheel ski, and ground maneuvering is quite difficult with the tight turns required to exit and re-enter the runway. This allowed the Instructor to help get the plane moving again and assist in directional control until speed was built up.

On final approach, the PIC noticed the runway appeared to have open gravel patches. The pilot questioned the Tower to be sure that the runway was open for ski-plane traffic, and was assured that it was. After landing on a snow covered area on the center of the approach end, the plane went over an area with no snow, and ground to a rapid stop. Subsequently, the plane had great difficulty moving, even with full power. The PIC ultimately exited the runway on to the parallel taxiway and departed shortly after the field went VFR. The Tower indicated a pilot deviation had occurred due to discharging a passenger on the runway. The Tower did not appear to be hearing or listening to PIC transmissions.

## Synopsis

C172 pilot and flight instructor reported landing with skis resulted in a runway incursion after becoming immobile and off loading the instructor on the runway.



## Time / Day

Date : 201901  
Local Time Of Day : 0601-1200

## Place

Locale Reference.Airport : ZZZ.Airport  
State Reference : US  
Altitude.MSL.Single Value : 1700

## Environment

Flight Conditions : VMC  
Light : Daylight

## Aircraft : 1

Reference : X  
ATC / Advisory.Tower : ZZZ  
Aircraft Operator : FBO  
Make Model Name : Cardinal 177/177RG  
Operating Under FAR Part : Part 91  
Flight Plan : VFR  
Mission : Training  
Flight Phase : Initial Climb

## Aircraft : 2

Reference : Y  
ATC / Advisory.Tower : 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 Phase : Initial Climb

## Person

Reference : 1  
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 : 1470  
Experience.Flight Crew.Last 90 Days : 300  
Experience.Flight Crew.Type : 1400  
ASRS Report Number.Accession Number : 1608246  
Human Factors : Situational Awareness  
Human Factors : Communication Breakdown  
Communication Breakdown.Party1 : Flight Crew  
Communication Breakdown.Party2 : ATC

## Events

Anomaly.ATC Issue : All Types  
Anomaly.Conflict : NMAC  
Detector.Person : Flight Crew  
Miss Distance.Horizontal : 200  
Miss Distance.Vertical : 15  
When Detected : In-flight  
Result.General : None Reported / Taken

## Assessments

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

## Narrative: 1

Dual departure from Runway XXL and XXR, PA-28 was below and behind us. [It] was cleared to make a northwestern turn out, causing us to cross their flight path on takeoff. Was given traffic advisory for another aircraft that was not a factor for us, and we didn't see the PA-28 until it maneuvered to avoid us.

## Synopsis

GA flight instructor reported a near mid-air collision with an aircraft departing the parallel runway.

## Time / Day

Date : 201901

Local Time Of Day : 0601-1200

## 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 : CLR

## Aircraft : 1

Reference : X

ATC / Advisory.UNICOM : ZZZ

Aircraft Operator : Personal

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.UNICOM : ZZZ

Aircraft Operator : Personal

Make Model Name : PA-44 Seminole/Turbo Seminole

Operating Under FAR Part : Part 91

Mission : Personal

Flight Phase : Initial Climb

## Aircraft : 3

Reference : Z

ATC / Advisory.UNICOM : ZZZ

Make Model Name : Any Unknown or Unlisted Aircraft Manufacturer

Flight Phase : Final Approach

Flight Phase : Landing

## Person

Reference : 1

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 : Commercial  
Qualification.Flight Crew : Multiengine  
Qualification.Flight Crew : Instrument  
Experience.Flight Crew.Total : 630  
Experience.Flight Crew.Last 90 Days : 107  
Experience.Flight Crew.Type : 493  
ASRS Report Number.Accession Number : 1607637  
Human Factors : Training / Qualification  
Human Factors : Situational Awareness

## Events

Anomaly.Conflict : NMAC  
Detector.Automation : Aircraft TA  
Miss Distance.Vertical : 400  
When Detected : In-flight  
Result.Flight Crew : Took Evasive Action

## Assessments

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

## Narrative: 1

My student and I were practicing the Localizer DME RWY XX Approach into ZZZ. I had made 3 position reports on the CTAF frequency notifying airport traffic of our position on the approach, and what our intentions were. The winds were favoring Runway XY and that's what runway was in use at the time. I had planned to do a low approach over the top at circling approach minimum which [was] 1260 ft, and then enter the downwind for Runway XY, and I made that clear over the CTAF. The goal was to practice circling to land off an approach with my instrument student. A Piper Seminole had just departed the runway and I had that traffic in sight, and I was aware there was another aircraft that was behind the Seminole on final. Believing I had enough time, I had my student take off the hood, at which point the aircraft was under my control. As we passed over the top of the field in preparation to circle, I realized that there was only about 400 feet between me and the other aircraft which had been behind the Seminole (as noted via the Traffic information Service and visual observation). Rather than continue, my student and I departed the pattern and re-entered on the 45 for Runway XY without incident. ZZZ is among the top 4 busiest airports within the state, but is un-towered. The field is currently attempting to fund a control tower, which many people believe is much needed and critical to maintaining the safety at the airport. However, in order to prevent future occurrences, and until a tower is implemented, breaking off approaches and re-entering on the 45 when there are multiple aircraft in the pattern is probably safest.

## Synopsis

Instructor pilot decided to break off approach due to close proximity of traffic at a non-towered airport airport.

## Time / Day

Date : 201901

Local Time Of Day : 0601-1200

## Place

Locale Reference.Airport : ZZZ.Airport

State Reference : US

Altitude.AGL.Single Value : 0

## Environment

Flight Conditions : Marginal

Weather Elements / Visibility.Visibility : 10

Light : Daylight

Ceiling.Single Value : 1500

## Aircraft

Reference : X

ATC / Advisory.UNICOM : 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 : Landing

## Person : 1

Reference : 1

Location Of Person.Aircraft : X

Location In Aircraft : Flight Deck

Reporter Organization : Personal

Function.Flight Crew : Pilot Flying

Qualification.Flight Crew : Student

Experience.Flight Crew.Total : 32

Experience.Flight Crew.Last 90 Days : 7

Experience.Flight Crew.Type : 32

ASRS Report Number.Accession Number : 1607628

Human Factors : Communication Breakdown

Human Factors : Training / Qualification

Human Factors : Situational Awareness

Communication Breakdown.Party1 : Flight Crew

Communication Breakdown.Party2 : Flight Crew

## Person : 2

Reference : 2

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 : Instrument  
Qualification.Flight Crew : Commercial  
Qualification.Flight Crew : Flight Instructor  
Experience.Flight Crew.Total : 380  
Experience.Flight Crew.Last 90 Days : 80  
Experience.Flight Crew.Type : 40  
ASRS Report Number.Accession Number : 1608220  
Human Factors : Training / Qualification  
Human Factors : Situational Awareness  
Human Factors : Communication Breakdown  
Communication Breakdown.Party1 : Flight Crew  
Communication Breakdown.Party2 : Flight Crew  
Analyst Callback : Completed

## Events

Anomaly.Ground Event / Encounter : Loss Of Aircraft Control  
When Detected : In-flight  
Result.General : Evacuated  
Result.Flight Crew : Took Evasive Action

## Assessments

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

## Narrative: 1

We were accomplishing some pattern work, and did 6 touch and goes. On the final landing, after landing, the aircraft went into an uncontrollable left-hand skid/veer - pointing the aircraft toward an area of construction consisting of an approximate 10 ft drop-off. My instructor took control of the situation, preventing a prop strike, and/or a potentially harmful situation. Safely landing the aircraft on the other side of the construction area after going past the drop-off. No one was injured in the event. Initially, the aircraft received a damaged nose-wheel pant and was able to be towed to its hangar for inspection. Due to the limited damage, this was deemed an incident by the instructor and not an accident, no substantial damage was caused to the airplane.

## Narrative: 2

I was giving dual flight instruction to a Student Pilot that was part of our flying club. We were working on pattern work and had a plan to do touch and goes for an hour. We had done 5 touch and go's and his performance had been completely satisfactory. This was going to be the last touch and go for the day and as we were coming in, it was a very stabilized approach and landing until 3-5 seconds after touch down. We had landed on the left half of Runway 1-19 and had about 10-15 more [feet] to the left before we were off the runway. The nose came slightly right and then extremely fast the nose was pointed 45 degrees of the runway to the left. I think what happened was this was the Student Pilot's attempt to correct for the initial drift error of the nose to the right. The overcorrection was so much to the point [it] was unrecoverable by me. When it happened, I pulled the power as we were too slow to attempt a takeoff and I applied full right rudder and right brake to get the airplane to come back to the right onto the runway. It seemed to have no effect and I believe the Student Pilot had frozen his leg on the left rudder/brake, so I had no effect until it was too late. We traveled 20 ft. or so to the left of the runway going

approximately 50 miles per hour and I had put considerable back pressure in to keep the nose out of the ground. There was a mound of dirt followed, but an immediate 15 foot drop off we were going towards. We ramped up the mound and we're back in the air and glided about 150 feet further where the airplane came to a stop in some mud. I shut the entire airplane down and we got out to survey the damage. The only visible damage [was] to the nose wheel fairing. There was no substantial damage caused to the aircraft or any other part. I believe that this was unavoidable as soon as the Student Pilot overcorrected for the initial nose drift just due to the violence of the action he took. We both walked away without a scratch and there was visibly no damage to the aircraft. We then had the airplane towed back to its hangar where it is currently.

## Callback: 2

Instructor Pilot reiterated what happened on flight.

## Synopsis

Student and Instructor pilots reported an incident where the aircraft landed and then became uncontrollable in a skid.

## Time / Day

Date : 201812

## Place

Locale Reference.Airport : ZZZ.Airport  
State Reference : US  
Altitude.AGL.Single Value : 200

## Environment

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

## Aircraft : 1

Reference : X  
ATC / Advisory.Tower : ZZZ  
Aircraft Operator : Personal  
Make Model Name : Skyhawk 172/Cutlass 172  
Operating Under FAR Part : Part 91  
Mission : Training  
Flight Phase : Final Approach  
Airspace.Class D : ZZZ

## Aircraft : 2

Reference : Y  
Aircraft Operator : Personal  
Make Model Name : Beechcraft Single Piston Undifferentiated or Other Model  
Crew Size.Number Of Crew : 1  
Operating Under FAR Part : Part 91  
Flight Phase : Initial Approach  
Airspace.Class D : ZZZ

## Aircraft : 3

Reference : Z  
Aircraft Operator : Personal  
Make Model Name : Beechcraft Single Piston Undifferentiated or Other Model  
Crew Size.Number Of Crew : 1  
Operating Under FAR Part : Part 91  
Flight Phase : Landing

## Person

Reference : 1  
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 : Commercial  
Qualification.Flight Crew : Multiengine  
Qualification.Flight Crew : Instrument  
ASRS Report Number.Accession Number : 1607352  
Human Factors : Confusion  
Human Factors : Communication Breakdown  
Human Factors : Situational Awareness  
Communication Breakdown.Party1 : Flight Crew  
Communication Breakdown.Party2 : Flight Crew

## Events

Anomaly.Conflict : Ground Conflict, Critical  
Anomaly.Deviation - Procedural : Published Material / Policy  
Detector.Person : Flight Crew  
When Detected : In-flight  
Result.Flight Crew : Took Evasive Action

## Assessments

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

## Narrative: 1

While practicing landings on RWY XX at ZZZ with a pre-solo student who owns the aircraft, winds calm, traffic very light. A Bonanza (Aircraft Y) was heard 10 miles to the west, who intended to land on RWY XY (opposite runway). I radioed the Bonanza that this would be a full stop landing on RWY XX and there should be no conflict. On very short final [another] Bonanza (Aircraft Z) was spotted on the runway and a go around with a right climbing turn was initiated. Runway XY-XX was closed because the Bonanza had blown two tires. So we landed without incident on Runway XZ. I believe there was some confusion about which Bonanza was where. I believe that the fact that sometimes pilots give position reports with aircraft type (Bonanza) only was a contributing factor.

## Synopsis

Flight instructor reported another aircraft was observed landing in the opposite direction on the same runway, so a go around was performed to avoid a conflict.

## Time / Day

Date : 201901

Local Time Of Day : 0601-1200

## Place

Locale Reference.Airport : ZZZ.Airport

State Reference : US

Relative Position.Angle.Radial : 000

Relative Position.Distance.Nautical Miles : 1

Altitude.AGL.Single Value : 800

## 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 : Small Aircraft, Low Wing, 1 Eng, Fixed Gear

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

## Aircraft : 2

Reference : Y

ATC / Advisory.Tower : ZZZ

Aircraft Operator : Personal

Make Model Name : PA-28R Cherokee Arrow All Series

Operating Under FAR Part : Part 91

Flight Phase.Other

## Person

Reference : 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 : Commercial

Qualification.Flight Crew : Instrument

Experience.Flight Crew.Total : 350

Experience.Flight Crew.Last 90 Days : 30

Experience.Flight Crew.Type : 2

ASRS Report Number.Accession Number : 1607313

Human Factors : Situational Awareness  
Human Factors : Confusion  
Analyst Callback : Attempted

## Events

Anomaly.Conflict : Airborne Conflict  
Anomaly.Deviation - Track / Heading : All Types  
Anomaly.Deviation - Procedural : Clearance  
Detector.Person : Flight Crew  
When Detected : In-flight  
Result.Flight Crew : Became Reoriented  
Result.Flight Crew : Took Evasive Action

## Assessments

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

## Narrative: 1

I was operating the banner tow aircraft within the northwest corner of the airport at 400 feet. This is what we call the banner box and we stay in this area to maintain separation from the airport traffic pattern which is at 800 feet. The airport was in east operations; winds from the east, below 10 knots.

It was my 2nd flight in [this type of aircraft], the first flight was done 2 weeks prior to this report. I was not completely comfortable with flying the aircraft yet.

After flying within the banner box for approximately 30 min (no banners were used during this practice flight), I requested to join the traffic pattern to practice stop-and-go's. The tower cleared me to join the downwind leg for runway XXL. At that moment I was abeam the numbers of XXL, flying parallel to runway XXL on the north side. I begin my climb to 800 MSL and turn into the downwind leg which should have involved two 90 degree turns to the left.

Instead, due to a lack of situational awareness, I make a 90 degree turn left, then a 90 degree turn to the right, as to join the downwind for runway XYR, which was not in use. I think that it should be noted that during my first flight in the aircraft, runway XYR was in use and I had been chair flying the night before picturing the airport in west operations.

Now on the downwind for XYR, I see an aircraft at 12 o'clock beginning his downwind turn from crosswind (to face me head on), 400 feet below me. Immediately I begin a steep turn 180 degrees to the right, realizing that I had been flying the pattern in the reverse direction. At this point tower contacted me and asked if I understood what the downwind leg was. The aircraft that was mentioned turning downwind is now at my 2 o'clock, same altitude.

Tower clears me for a stop-and-go on runway XXL, and I comply. This is a mistake, as I should have requested to terminate my flight at this point. I continue to make 2 laps of the traffic pattern. On the 3rd lap of the traffic pattern, I am on downwind, tower clears me to make a stop-and-go, number 4 for XXL, following a Piper Cherokee. I see traffic on short final and I see a PA-28 abeam me on final. I do not spot any other traffic behind this PA-28. Despite not finding the 3rd aircraft, I decide to make the terrible decision and conclude that he is the Cherokee mentioned by tower, and I begin my base turn to fly

behind this PA-28. On the base leg, I again check for traffic on final and do not spot anybody in trail of this PA-28.

I am on final when an aircraft reports that I have cut in front of them. Tower tells me that the PA-28 I am following is a Piper Arrow, and that I did not follow his instructions and promptly vectors me northbound. I do not know how close the Cherokee behind me got. No evasive maneuvers had to be taken by any of the planes.

At this point I am told to make a full stop landing by tower and I comply. ATC never gave me a number to contact, although I definitely feel like I should have been given one.

After securing the aircraft, my instructor (who was monitoring on the ground) and I decide to call the tower and apologize. We then went over my lack situational awareness which was the major factor that fueled the events that occurred during the flight.

## Synopsis

GA pilot reported turning opposite direction in the pattern and then cutting off another aircraft.

## Time / Day

Date : 201901

Local Time Of Day : 1801-2400

## Place

Locale Reference.Airport : ZZZ.Airport

State Reference : US

Altitude.AGL.Single Value : 0

## Aircraft

Reference : X

Aircraft Operator : Personal

Make Model Name : Skyhawk 172/Cutlass 172

Crew Size.Number Of Crew : 2

Operating Under FAR Part : Part 91

Flight Plan : IFR

Mission : Training

Flight Phase : Landing

## Component

Aircraft Component : Main Gear Wheel

Aircraft Reference : X

Problem : Failed

## Person

Reference : 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 : Commercial

Qualification.Flight Crew : Flight Instructor

ASRS Report Number.Accession Number : 1607279

Human Factors : Situational Awareness

## Events

Anomaly.Aircraft Equipment Problem : Less Severe

Anomaly.Ground Excursion : Runway

Anomaly.Ground Event / Encounter : Loss Of Aircraft Control

Detector.Person : Flight Crew

When Detected : In-flight

Result.General : Maintenance Action

Result.Flight Crew : Took Evasive Action

Result.Aircraft : Aircraft Damaged

## Assessments

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

## Narrative: 1

The student was conducting his first night cross-country. We flew to ZZZ and conducted a normal landing. The landing was smooth and on centerline with no side loading. Upon landing we conducted our rollout and applied full power and were able to depart from ZZZ. On the way back, the student did a practice diversion into ZZZ1. We entered the pattern and planned to conduct a full-stop taxi back on Runway XX. Student conducted an excellent landing, smooth and on centerline, and no excessive braking. On the rollout, student began to drift aircraft towards the left and seemed to have trouble maintain centerline. I called out "my controls" and took control of the aircraft to get back on centerline. I began to apply right rudder and was unable to correct for the drift and regain centerline. I realized that we would be unable to correct, so I made the decision to get the aircraft off the runway in case any aircraft may try to land. I placed the aircraft just passed the numbers (1) in the grass. At that point, I asked the student to look and see if there is any problem on his main gear. He said yes and the tire is flat, I added power and full right rudder to attempt to get back on the runway. I was unable and knew the problem was not a flat tire. We shut down the aircraft and I inspected the tire. I found the tire was displaced from the wheel well. Upon determining that there was no immediate solution I called Dispatch for assistance.

In the future, I will check the tires before each landing in order to ensure they are in place and not flat. I will continue to land softly and ensure no unnecessary or unequal braking is applied during landing.

## Synopsis

C172 flight instructor reported a loss of aircraft control on landing rollout resulted in a runway excursion.

## Time / Day

Date : 201812  
Local Time Of Day : 1201-1800

## Place

Locale Reference.Airport : BFI.Airport  
State Reference : WA  
Altitude.MSL.Single Value : 2000

## Environment

Flight Conditions : IMC  
Weather Elements / Visibility.Visibility : 4  
Light : Daylight  
Ceiling.Single Value : 1100

## Aircraft

Reference : X  
ATC / Advisory.Tower : SEA  
Aircraft Operator : FBO  
Make Model Name : Small Aircraft  
Crew Size.Number Of Crew : 2  
Operating Under FAR Part : Part 91  
Flight Plan : IFR  
Mission : Training  
Flight Phase : Initial Climb  
Route In Use.SID : NRVNA

## Person

Reference : 1  
Location Of Person.Aircraft : X  
Location In Aircraft : Flight Deck  
Reporter Organization : FBO  
Function.Flight Crew : Pilot Not Flying  
Qualification.Flight Crew : Instrument  
Qualification.Flight Crew : Air Transport Pilot (ATP)  
Qualification.Flight Crew : Flight Instructor  
Experience.Flight Crew.Total : 4500  
Experience.Flight Crew.Last 90 Days : 150  
Experience.Flight Crew.Type : 2000  
ASRS Report Number.Accession Number : 1606972  
Human Factors : Situational Awareness

## Events

Anomaly.Deviation - Track / Heading : All Types  
Anomaly.Deviation - Procedural : Published Material / Policy  
Detector.Person : Flight Crew  
Detector.Person : Air Traffic Control  
When Detected : In-flight  
Result.Air Traffic Control : Issued New Clearance

## Assessments

Contributing Factors / Situations : Chart Or Publication

Primary Problem : Chart Or Publication

### Narrative: 1

MVFR conditions prevailed with relatively strong winds. We were assigned the NRVANA 1 Departure, which is an RNAV (GPS) departure from Runway 14R. The departure includes a climb on an initial track of 135 degrees to 700 feet, then direct NRVANA. Positive course guidance is not available on this departure until reaching 700 feet. On or about the time we reached that altitude, we entered IMC conditions and we were turned over to Seattle radar. As we managed the hand off, we began to notice a divergence from the outbound course. Over the next two minutes, while making heading corrections, the divergence continued. During this time, it became apparent that we had entered strong cross winds. As best as I could tell, the maximum divergence was about 0.6 nautical miles which was displayed on the navigation display as a one quarter scale deflection. Seattle ATC gave an immediate left turn instruction, wherein we immediately corrected an additional 40 degrees of heading. The rest of the flight was normal. My concern is a possible loss of separation. While we remained within the lateral boundaries of the BFI Class D airspace, our cleared altitude reached 2200 feet before we were able to diverge back to the center line. This could have resulted in a traffic conflict with aircraft arriving at SEATAC. I recommend the departure be redesigned to allow for positive course guidance be provided at 600 feet versus 700 feet, which is the standard for an RNP 1 Departure. Given the complexity of the airspace in this region, positive course guidance at a lower altitude would reduce the risk.

### Synopsis

GA flight instructor reported a slight course divergence due to strong cross winds could cause a possible loss of separation. Reporter recommended the departure procedure be redesigned.



## Time / Day

Date : 201812

Local Time Of Day : 1201-1800

## Place

Locale Reference.Airport : ZZZ.Airport

State Reference : US

Altitude.AGL.Single Value : 200

## Environment

Flight Conditions : VMC

Weather Elements / Visibility.Visibility : 10

Light : Daylight

Ceiling : CLR

## Aircraft

Reference : X

ATC / Advisory.Tower : ZZZ

Aircraft Operator : Personal

Make Model Name : RV-4

Crew Size.Number Of Crew : 2

Operating Under FAR Part : Part 91

Flight Plan : None

Mission : Training

Flight Phase : Takeoff

Route In Use : None

Airspace.Class C : ZZZ

## Component : 1

Aircraft Component : Engine

Aircraft Reference : X

Problem : Failed

## Component : 2

Aircraft Component : Fuel Line, Fittings, & Connectors

Aircraft Reference : X

Problem : Malfunctioning

## Person : 1

Reference : 1

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 : Multiengine

Qualification.Flight Crew : Flight Instructor

Qualification.Flight Crew : Instrument

Experience.Flight Crew.Total : 4500  
Experience.Flight Crew.Last 90 Days : 100  
Experience.Flight Crew.Type : 10  
ASRS Report Number.Accession Number : 1606493  
Human Factors : Situational Awareness

## Person : 2

Reference : 2  
Location Of Person.Aircraft : X  
Location In Aircraft : Flight Deck  
Reporter Organization : Personal  
Function.Flight Crew : Pilot Flying  
Qualification.Flight Crew : Private  
ASRS Report Number.Accession Number : 1606963

## Events

Anomaly.Aircraft Equipment Problem : Critical  
Anomaly.Deviation - Procedural : Published Material / Policy  
Anomaly.Ground Excursion : Runway  
Anomaly.Ground Event / Encounter : Other / Unknown  
Anomaly.Inflight Event / Encounter : Fuel Issue  
Detector.Person : Flight Crew  
When Detected : In-flight  
Result.Flight Crew : Landed in Emergency Condition  
Result.Flight Crew : Took Evasive Action

## Assessments

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

## Narrative: 1

I was the flight instructor for a training mission for a tail wheel endorsement with a private pilot in his Vans RV4. Departed ZZZ, transitioned to ZZZ1 for longer wider runways. We had made 4 landings on Runway XX, changed to XYR, made one landing with the intention of returning back to ZZZ on departure of XYR. Engine quit about 200-300 AGL (I was in the rear of the plane and could not see the altimeter), I called that I had the aircraft, the private pilot confirmed and I then informed ZZZ1 Tower that I was engine out and would be landing on the parking ramp for the passenger terminal, had a significant tailwind and was unable to stop on the ramp, picked up to miss taxiway lights and a drainage ditch, continued across grass to the east ramp. No damage to aircraft or property and no injuries to either of us. After the plane was moved, we determined that there was a piece of something stuck under the o-ring of the right hand tank fuel sump as there were blue streaks under the right wing. Fuel sump still drained fuel at this point when activated and the gauge showed 2-3 gallons. Had the FBO add 10 gallons to that tank, it then showed 16 gallons at rest and 13 after a short taxi. I figure the loss of engine power was fuel starvation due to a leaky sump, and between not watching gauges closely enough even though we had been airborne an hour or less and maybe inaccurate gauges it was not caught in a timely manner. Will certainly be more aggressive on telling lower time pilots to keep an eye on fuel quantities regardless of time flow thus far on the mission.

## Narrative: 2

I went out with my instructor for a training mission for my tail wheel endorsement in my Vans RV4. We departed ZZZ with about 17 gallons of fuel to ZZZ1 and did 4 landings on Runway XX for longer wider runways. After a few practices we switched to XYR to practice cross wind. We did 1 landing on XYR and departed with intentions on going back to ZZZ. At about 200 AGL the engine quit and my instructor took over from the back seat. He informed Tower that we had an engine out and would be landing on the terminal ramp. As we came down, we were too fast to stop on the terminal ramp so he picked up to avoid a ditch and obstacles and stopped it on the east ramp. There was no damage to any property or aircraft, and no injuries to either of us. Once stopped, we pushed the plane to [the FBO] to do a report with the airport. After further inspection of the plane we found some trash and gunk in the right hand side fuel sump o-ring along with blue streaks under the wing. The sump continued to drain and the fuel gauge read about 2 gallons still. We had [the FBO] add 10 gallons to that tank and then the gauge read about 15-16 gallons and then 13 gallons after taxi. We determined that the loss of power was due to fuel starvation. This happened because of fuel drainage through the leaking fuel sump and not being caught because of the misreading fuel gauges. In the future I will definitely be more cautious and aware of how much fuel we have on board knowing that the fuel gauges are inaccurate.

## Synopsis

RV4 pilot and flight instructor reported a loss of engine power and off runway landing due to fuel leak and fuel starvation.

## Time / Day

Date : 201812  
Local Time Of Day : 1201-1800

## Place

Locale Reference.Airport : ZZZ.Airport  
State Reference : US  
Altitude.AGL.Single Value : 150

## Environment

Flight Conditions : VMC  
Weather Elements / Visibility.Visibility : 10  
Light : Daylight  
Ceiling.Single Value : 4700

## 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  
Airspace.Class D : ZZZ

## Component

Aircraft Component : Fuel Distribution System  
Aircraft Reference : X  
Problem : Improperly Operated

## Person

Reference : 1  
Location Of Person.Aircraft : X  
Location In Aircraft : Flight Deck  
Reporter Organization : FBO  
Function.Flight Crew : Instructor  
Function.Flight Crew : Pilot Flying  
Function.Flight Crew : Single Pilot  
Qualification.Flight Crew : Commercial  
Qualification.Flight Crew : Flight Instructor  
Qualification.Flight Crew : Multiengine  
Experience.Flight Crew.Total : 1632  
Experience.Flight Crew.Last 90 Days : 236  
Experience.Flight Crew.Type : 894  
ASRS Report Number.Accession Number : 1606486  
Human Factors : Distraction

Human Factors : Time Pressure  
Human Factors : Confusion

## Events

Anomaly.Aircraft Equipment Problem : Critical  
Anomaly.Deviation - Procedural : Published Material / Policy  
Anomaly.Inflight Event / Encounter : Fuel Issue  
Detector.Person : Flight Crew  
When Detected : In-flight  
Result.Flight Crew : Became Reoriented  
Result.Flight Crew : Landed in Emergency Condition  
Result.Flight Crew : Overcame Equipment Problem  
Result.Flight Crew : Took Evasive Action  
Result.Flight Crew : Returned To Departure Airport

## Assessments

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

## Narrative: 1

I was taking off with full fuel on board and 3 passengers in a Piper Warrior. After a thorough pre-flight and startup, taxi and before takeoff checklist, I got the permission for takeoff. Rolling into the runway and adding power I confirmed all engine instruments were in the green and airspeed was alive. After liftoff with no runway remaining I experienced intermittent engine power. Immediately reported mayday to the Tower and began turning left. Based on the situation, I tried to troubleshoot anything I thought it could cause the engine problem while I had full control of the plane. I turned the carburetor heat on and confirmed my fuel pump was on and mixture set to rich. I got permission to land on any runway and kept pumping the throttle to keep the engine running. When I finished my turn towards RWY XX, I realized I was above the middle of the RWY and I would not be able to land on the RWY XX safely, so I made the decision to turn to RWY XY where I landed safely. After I landed I asked to do a quick run up to the engine so I can get an idea what was wrong. During my ground run up everything was working as it was supposed to work. I looked down to the fuel selector and I realized it was halfway between L and R tanks. Based on what I experienced I was almost sure that it was a fuel issue and the position of the fuel selector created the problem and I left the plane in ZZZ for further inspection by a professional mechanic. A few hours later when I relaxed and started putting things together, I recall asking my young student to make certain to remove his feet from the pedals once we obtained clearance for takeoff. After much thought my conclusion is that it is possible that my young student may have actuated the fuel selector accidentally during takeoff resulting in a fuel starvation situation. As a pilot I continually strive to make safe choices during every phase of flight and moving forward I have learned to expect the unexpected including keeping an even closer watch on all items both inside and outside the aircraft cabin.

## Synopsis

PA-28 flight instructor reported a loss of engine power due to a misaligned fuel selector led to a return to the departure airport.

## Time / Day

Date : 201812  
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

## 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 : None  
Mission : Training  
Flight Phase : Takeoff

## Person

Reference : 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 : 100  
Experience.Flight Crew.Last 90 Days : 12  
Experience.Flight Crew.Type : 100  
ASRS Report Number.Accession Number : 1605903  
Human Factors : Situational Awareness  
Human Factors : Training / Qualification  
Analyst Callback : Attempted

## 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.Flight Crew : Regained Aircraft Control

## Assessments

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

## Narrative: 1

I was doing pattern work and on my fifth landing, which was a full stop and go. I set up the aircraft for a soft field take off. I set up 10 of flaps, trim take off, over all instruments in good standards, then I applied full power. As soon as I did that, the aircraft start drifting a little bit to the left which I corrected with right rudder as usual, but the drift to the left got intensified.

What I did next was to abort the take off by pulling the power to idle, but the aircraft continued out of control to the left. I applied the brakes, opposite rudder but the aircraft went off the runway. Right off the runway, it hit a runway sign with the left strut and made full stop about 200 feet after the strut hit the sign.

When the aircraft made full stop immediately, I shut off the fuel and pulled the mixture out, turned the master off. Before that, I made a quick call to Tower to let them know I was uninjured. I exited the aircraft and waited for the authorities to come to the site. Weather condition was not a factor, winds were calm.

## Synopsis

C172 student pilot reported a loss of control during takeoff that resulted in a runway excursion and contact with a runway sign.

## Time / Day

Date : 201812

Local Time Of Day : 0601-1200

## Place

Locale Reference.Airport : SDY.Airport

State Reference : MT

Altitude.AGL.Single Value : 200

## Environment

Flight Conditions : VMC

Weather Elements / Visibility.Visibility : 10

Light : Daylight

Ceiling.Single Value : 9000

## Aircraft : 1

Reference : X

ATC / Advisory.CTAF : SDY

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 : Takeoff

Route In Use : Visual Approach

Airspace.Class G : SDY

## Aircraft : 2

Reference : Y

ATC / Advisory.CTAF : SDY

Make Model Name : Small Transport

Operating Under FAR Part : Part 91

Flight Phase : Final Approach

Airspace.Class G : SDY

## Person

Reference : 1

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 : Commercial

Qualification.Flight Crew : Multiengine

Qualification.Flight Crew : Instrument

Experience.Flight Crew.Total : 3500

Experience.Flight Crew.Last 90 Days : 34



Experience.Flight Crew.Type : 3300  
ASRS Report Number.Accession Number : 1605209  
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 : 200  
Miss Distance.Vertical : 200  
When Detected : In-flight  
Result.Flight Crew : Took Evasive Action

## Assessments

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

## Narrative: 1

I was instructing a student pilot and he was performing his 4th touch and go on Runway 19. The wind was 180 at 4 KTS. We were calling on the radio our position in the pattern right downwind, right base, and final for Runway 19. On our take off roll I observed Aircraft Y on final for Runway 1. With insufficient runway to stop, we decided to take off and make an evasive maneuver to the left.

## Synopsis

GA Instructor reported NMAC on departure with opposite direction traffic at a non-towered airport.

## Time / Day

Date : 201812

Local Time Of Day : 1201-1800

## Place

Locale Reference.Airport : PMV.Airport

State Reference : NE

Relative Position.Angle.Radial : 190

Altitude.MSL.Single Value : 2700

## Environment

Flight Conditions : VMC

Weather Elements / Visibility.Visibility : 20

Light : Daylight

## Aircraft : 1

Reference : X

ATC / Advisory.CTAF : PMV

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 : Landing

Airspace.Class E : PMV

## Aircraft : 2

Reference : Y

ATC / Advisory.CTAF : PMV

Aircraft Operator : Personal

Make Model Name : Small Aircraft

Operating Under FAR Part : Part 91

Mission : Personal

Flight Phase : Initial Climb

Airspace.Class E : PMV

## Person

Reference : 1

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 : Multiengine

Qualification.Flight Crew : Commercial

Qualification.Flight Crew : Flight Instructor

Qualification.Flight Crew : Instrument

Experience.Flight Crew.Total : 800

Experience.Flight Crew.Last 90 Days : 16  
Experience.Flight Crew.Type : 100  
ASRS Report Number.Accession Number : 1605196  
Human Factors : Communication Breakdown  
Human Factors : Situational Awareness  
Communication Breakdown.Party1 : Flight Crew  
Communication Breakdown.Party2 : Flight Crew

## Events

Anomaly.Conflict : NMAC  
Anomaly.Deviation - Procedural : Published Material / Policy  
Detector.Person : Flight Crew  
Miss Distance.Horizontal : 50  
Miss Distance.Vertical : 100  
When Detected : In-flight  
Result.Flight Crew : Took Evasive Action

## Assessments

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

## Narrative: 1

Approached Plattsmouth airport (PMV) from the west at 2,200 MSL with intention to practice landings with student. AWOS reported wind direction from 240, which slightly favored runway 16. Announced on CTAF (122.7) intention to enter left downwind to Runway 16 by crossing runway at midfield. An unidentified voice came over CTAF stating "Active Runway is 34." I replied on CTAF "Winds favor 16." I then saw Aircraft Y holding at the approach end of Runway 34. I announced on CTAF we would switch to Runway 34. I instructed my student to continue across the airport and climb to 2,700. We turned south approximately one mile east of the runway and turned south. We turned back to the west and passed one mile south of the airport.

We then heard the Aircraft Y pilot report "Aircraft Y...departing the pattern to the south." I immediately announced my position "Aircraft X...south of Plattsmouth at 2,700 feet." About 12 seconds later I spotted Aircraft Y below our altitude on an intersecting course. At the same time Aircraft Y pilot came on the radio and said "Aircraft X at Plattsmouth, I'll fly under you." I replied, "I see you, Aircraft Y, have a good flight." He passed under and slightly behind us. To prevent a recurrence I would query the departing aircraft as to direction of flight and plan pattern entry accordingly. Had Aircraft Y been showing a landing light, I would have seen him much sooner. A contributing factor to this occurrence was the wind direction being nearly perpendicular to the runway, making runway selection somewhat ambiguous.

## Synopsis

GA instructor reported an NMAC near PMV.

## Time / Day

Date : 201812  
Local Time Of Day : 1201-1800

## Place

Locale Reference.Airport : ZZZ.Airport  
State Reference : US  
Relative Position.Distance.Nautical Miles : 1  
Altitude.AGL.Single Value : 1000

## Environment

Flight Conditions : VMC  
Weather Elements / Visibility.Visibility : 10  
Light : Daylight  
Ceiling.Single Value : 10000

## 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 : None  
Mission : Training  
Flight Phase : Initial Approach  
Route In Use : Visual Approach  
Airspace.Class D : ZZZ

## Person

Reference : 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 : 31  
Experience.Flight Crew.Last 90 Days : 26  
Experience.Flight Crew.Type : 31  
ASRS Report Number.Accession Number : 1604839  
Human Factors : Situational Awareness  
Human Factors : Training / Qualification  
Human Factors : Confusion

## Events

Anomaly.Flight Deck / Cabin / Aircraft Event : Other / Unknown  
Anomaly.Deviation - Speed : All Types  
Anomaly.Ground Incursion : Taxiway

Anomaly.Inflight Event / Encounter : Loss Of Aircraft Control  
Anomaly.Inflight Event / Encounter : Weather / Turbulence  
Anomaly.Inflight Event / Encounter : CFTT / CFIT  
Detector.Person : Flight Crew  
When Detected : In-flight  
Result.Flight Crew : Took Evasive Action  
Result.Flight Crew : Regained Aircraft Control  
Result.Flight Crew : Landed in Emergency Condition  
Result.Air Traffic Control : Provided Assistance

## Assessments

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

## Narrative: 1

This was the day of my first student solo. I had completed an hour of solo flight in the pattern earlier that day after 3 laps in the pattern with my instructor.

On the seventh lap of the second session, I practiced a slip to landing to XX, leveled out at about 10 feet AGL, and believe I caught a wake from a previously departing aircraft, even though I had taken precautions to avoid the affected parts of the runway. I immediately went around.

During the upwind I set cruise RPMs of 2,400, noted the correct airspeed of ~120kts, noted that I was a touch high and pulled some power, called downwind to the tower, was cleared to land, and completed my pre-landing checklist.

I started my setup for descent (pull power from 2,400 RPM to ~1,575 while gradually adding back pressure to increase the nose-up attitude appropriate for level flight with slower speed as the plane as the decelerated, pull carb heat which further drops the power to 1,500, put in three rolls down on the trim wheel, wait and watch for airspeed to indicate ~80 KTS, then add 3 seconds of flaps (~10 degrees of flaps), verify flaps, push over to nose down to set my descent picture, check correct trim with only fingertip pressure required on the yoke, verify FPM, clear right and start the turn to base. During this process, before pushing the nose over, I noted that when I was still in a "level" to "nose-up" picture, with speed dropping from 90-80 IAS, I was descending already at almost 500 FPM. This was with just over 80 KTS indicated and a slightly nose-high attitude. This confused me a bit because I usually don't see much vertical speed until I purposefully drop the nose after adding flaps.

I then dropped the nose as usual and started a shallow right turn. A few seconds after the stable turn was established at about 20 degrees with the controls neutralized, I felt and saw the plane nose down even more, felt I was falling toward the right door and was "light" in my seat and saw the plane suddenly started increasing its roll to the right. I immediately corrected with left aileron and rudder to level the plane, which took more effort and time than normal, saw the VSI was pointing down (about 1,000 FPM down), checked the IAS (around 80), and started pulling up as I knew I had enough airspeed to do so without stalling. While pulling up my airspeed decayed to an IAS under 70 KTS and I started to feel some buffeting, which I took as an indication of an accelerated stall. At this point I didn't understand what was going on felt there must be something wrong with the controls related to the left ball I had seen earlier and released back pressure, which again

accelerated me downward visually, while not increasing airspeed much.

I was extremely confused. I wondered if that left ball meant I was slipping without intending to, or that some control had "let go" or cable had slipped, or did I have a split flap or ?????? And why did pulling up at 70 KTS feel like I was stalling? I had never been in this situation before: I had enough indicated airspeed to do typical maneuvers, had tried to level out but felt I was still dropping while nose-up and potentially stalling (this plane usually stalls at under 45 KTS IAS), was descending extremely rapidly for the control inputs, and seemed to be accelerating downward with reference to the outside even though my airspeed wasn't keeping pace with the view of the landscape now getting closer by the second. In the flight recorder, my pull up shows a GPS speed of 107 KTS and continued drop of -401 FPM while at +.5 degrees pitch, even though I believe my IAS showed about 80. Again, normally at +.5 degrees pitch, I would have ballooned upwards and slowed down at the same time. At this point I was roughly 300 feet AGL, which put me 250 feet above buildings and obstacles. I was mystified and scared and thought I was going to crash.

I could not figure out what else to do, and was convinced at that moment that there was something wrong with the plane. I radioed tower to [advise them].

I remembered what my instructor had said and what the books said: fly the plane, fly the plane, fly the plane, fly it to the ground. All this time I could hear the tower calling to clear the space airport and keep planes away from the runway.

I then looked for a place to land or crash, feeling there was no way I could make the airfield at these descent rates, continued a shallow turn to the right to line up with a large street, and added full throttle to delay/lessen vertical impact while again pulling up. I believe I radioed the tower again telling them I had lost control and was headed for the street, but I am not sure I remember correctly whether I radioed that or just thought it.

At that very moment, above the power lines, I noticed that my descent had stopped increasing in rate, and even though I was still descending (per recorder over 500 FPM) that I was able to pull the nose up with a more "normal" response: my descent slowed dramatically more than it had slowed about 20 seconds before when I tried pulling up, and since I was at full power, I was not decreasing IAS dramatically while pulling up. My IAS looked to be climbing from ~75 to 80. At that point I saw the grass of the airfield to the right between two buildings and thought I would try to put the plane into the grass or some empty spot rather than on top of a busy street, and turned right between the buildings where I could see the grass of the airfield. At this point I was roughly 80 AGL and about 50 feet over the power lines and building roofs. The plane was pitched up at 2.5 degrees, I was now accelerating with full throttle and my last glance at the IAS showed 90 KTS. Usually this configuration is good for ~4-500 FPM of climb but I was still descending at over 200 FPM at 60 feet AGL. I still didn't feel the plane was responding "normally," but could see the "light at the end of the tunnel" as I thought I would at least clear the airfield fence and get into the grass.

As I came over the airport fence, I saw the taxiway was clear to my right, and that [an aircraft] was taxiing toward it from the left, and right at that moment heard the tower call to ask him to stop so I knew they could see me (I think they called "he's going for the taxiway"), although I think the pilot had seen me already because I saw his nose squat and plane stop right as the tower keyed the mike. With the length of the taxiway clear and nobody heading for it I decided to land there instead of the grass. I also noted that as I cleared the fence, the dramatic downward "fall" had stopped and the plane, at this point in

ground effect, was behaving close to normal. As I thought to deploy flaps, a final check on the IAS to verify within the white arc showed about 90 KTS. I was in a shallow bank over the taxiway, so pulled power, dropped full flaps, landed ungracefully but uneventfully in the taxiway, rolled to the end to be clear of traffic, and started talking with the tower for instructions.

They had me wait there for a few moments, and during that time I visually manipulated and inspected all the controls from the cockpit because I was sure I had experienced some kind of control failure. I moved every control and secondary control and could not see anything abnormal.

After a few moments, with tower permission I taxied the plane back to the ramp uneventfully and felt a deep sense of shame and fear. I felt I had failed as a student pilot, let my instructor down, must not have been ready for a solo, had "freaked out," almost harmed myself and others, and caused everybody at the airport inconvenience and potentially harm. I was embarrassed to have decided to fly that second hour, and questioned my own judgment.

Back at the hangar, I shut down, and my flight instructor and I then checked the flight controls and surfaces and found everything normal and operational.

During the weekend I spent hours and hours reviewing the flight recorder data and comparing the 60-second section to other normal laps and descents, and trying things out in the flight simulator and reading in forums and other accident reports, as well as re-reading several books about GA accidents. During that time I had several different hypothesis that could explain what had happened:

1) I had accidentally flipped the flaps lever to the "up" (retract) position after lowering them to 10 degrees, causing the plane to drop quickly during the turn (this 172 has a flap lever with a down position that must be held, a neutral position above that, and another neutral position above that which retracts the flaps).

2) and/or I had rolled the trim wheel up three times instead of down, creating a strong nose-down tendency and strong control pressures which I interpreted as "normal" and didn't fight strongly enough.

3) and/or I had lost proprioception/orientation during VMC and nosed the plane down and entered a dive.

4) and/or I had stalled a wing during my turn to base with incorrect control inputs.

5) and/or I had experienced some kind of downdraft/tailwind/wind shear.

I cannot conclusively rule out any of the above, but felt that I could safely return to flying because no matter which of the above were to blame, I should have done things differently, and indeed will do things differently going forward, and that if I took the right corrective action promptly, I could not only avoid this situation, but do it safely and without any drama or fear.

My personal "learnings" are as follows:

\* I will be much more conservative of how much I fly during this learning period, and also the amount of stress I put on myself to learn quickly.

- \* Even as a new student, I should have trusted my gut and not second-thought my instincts, and created time, altitude, and space to get 100% ahead of the plane before staying in the pattern.
- \* Although I have learned that the yaw I experienced on climb-out was due to fuel moving to the low wing from a previous extended slip (I re-created this scenario afterwards to verify), I should have kept on the same heading after my climb and taken some time as I didn't understand the change to the flight dynamics. Subsequently I have found that about 3-4 minutes of level flight will re-balance the fuel levels, but I will trust myself to create time and space whenever I find that something doesn't conform to my experience.
- \* This initial "ball" indication caused me to feel something was amiss, and might have slowed my responses later. I should have set a safe altitude and direction to do what troubleshooting was necessary, and should not have dismissed anything I didn't understand. This can be very challenging because as a student, we constantly see things we don't understand, but can't tell which are really "out of normal" and which are just "normal" things we haven't encountered yet.
- \* When things "feel wrong," immediately abort descent, get to straight and level or a climb if safe and possible, and create time and space to troubleshoot.
- \* When the right wing dropped, I feel I did the right thing to kick top rudder and ailerons to level and try to pull up. I would do that again, but add full throttle.
- \* At the point of leveling out after the turn to base I should have also gone to full power, even though I felt I was speeding up, because the IAS didn't show that speed increase. While I already knew and practiced many times increasing power to slow a descent rate, I didn't do this right away because I was "aimed down" and could sense a strong disconnect between my "observed" speed (the scenery speeding up and the nose dropping) and the indicated and felt "plane speed".
- \* The pattern is extremely dangerous: proximity to other planes, multiple turns, and low altitude AGL means that in ~30-45 seconds you can go from pattern altitude to impact, and one needs to be ready at all times to take immediate corrective action: 20 seconds was way too late, and until I had experienced this myself, and looked at the recordings to note that from the onset of realizing that things were not right to 20 feet AGL was 40 seconds, I did not truly understand how dangerous the pattern is. One also can't "train" for wind shear, or for what it feels like to have an accelerated stall at 400 feet AGL.
- \* While I had practiced go-arounds, power on and off stalls, and unusual attitudes, I had never felt the combination of sensations that I did at that moment.
- \* I believe I caught some sort of wind shear, strong downdraft and/or tailwind that while increasing my groundspeed, reduced lift, and caused "level flight" and attack angle with respect to the air I was flying in to be about 10-20 degrees down, so that when I went to about "level" pitch, I exceeded the angle of attack or got very close. By the time I "recovered" 25 seconds later, I was basically in a powered spiral dive, which I extended onto the taxiway.
- \* I am grateful that my instructor spent a good deal extra time with me after I could have done my solo and instead continued to do hours of dual instruction, forcing me to do different styles of approaches and maneuvers, endless coordination exercises, slow flight



and flight in turbulence. I am certain that without that excellent instruction and experience, I would have not been able to keep my bank angle low and consistent during that final turn, and know from the outset of that turn that I would arrive aligned over the pavement even though I was over a fence at 20 feet AGL close to trees, with full power, and doing everything outside of the "normal" pattern descent and landing.

I feel confident that by applying any of the learnings above I could have avoided this incident. And although I learned a lot from this incident, I wish it had never happened. I have flown since, but will have to work to return to the relaxed confidence I had before this. It will take some time to shake this incident off completely. I again want to express my gratitude to the tower personnel, the other pilots and my instructor for their encouragement and support during and after this. I earnestly hope to never again write another similar narrative.

## Synopsis

C172 student pilot reported a loss of control on final approach resulting in a landing on the taxiway.

## Time / Day

Date : 201812

Local Time Of Day : 1201-1800

## Place

Locale Reference.Airport : ZZZ.Airport

State Reference : US

Altitude.MSL.Single Value : 150

## Environment

Flight Conditions : Marginal

Weather Elements / Visibility : Haze / Smoke

Light : Daylight

## Aircraft

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 : Takeoff

Route In Use : None

Airspace.Class C : ZZZ

## Component

Aircraft Component : Engine

Aircraft Reference : X

Problem : Failed

## Person

Reference : 1

Location Of Person.Aircraft : X

Location In Aircraft : Flight Deck

Reporter Organization : Personal

Function.Flight Crew : Pilot Flying

Qualification.Flight Crew : Commercial

Qualification.Flight Crew : Flight Instructor

Qualification.Flight Crew : Instrument

Qualification.Flight Crew : Multiengine

ASRS Report Number.Accession Number : 1604837

Human Factors : Situational Awareness

Analyst Callback : Completed

## Events

Anomaly.Aircraft Equipment Problem : Critical  
Anomaly.Ground Incursion : Taxiway  
Anomaly.Ground Event / Encounter : Ground Strike - Aircraft  
Anomaly.Inflight Event / Encounter : Weather / Turbulence  
Detector.Person : Flight Crew  
When Detected : In-flight  
Result.Flight Crew : Returned To Departure Airport  
Result.Flight Crew : Landed in Emergency Condition  
Result.Aircraft : Aircraft Damaged

## Assessments

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

## Narrative: 1

After takeoff from ZZZ, flying the [offset] upwind we have experienced a complete power loss. I tried to do a turn back to the runway for landing and [advised ATC]. We got hard landing on the taxiway. At the turn we got into the wind shear situation, the plane just went down and had a very hard landing. The flightpath of the [offset] upwind at ZZZ does not allow for the straight out landing in a case of the engine failure.

## Callback: 1

Pilot reported being unaware of the reason for the engine failure.

## Synopsis

PA-28 pilot reported an engine failure after takeoff led to a return to the departure airport and a hard landing.

## Time / Day

Date : 201812  
Local Time Of Day : 0601-1200

## Place

Locale Reference.Airport : ZZZ.Airport  
State Reference : US

## Environment

Flight Conditions : VMC

## Aircraft : 1

Reference : X  
ATC / Advisory.UNICOM : 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  
Airspace.Class E : ZZZ

## Aircraft : 2

Reference : Y  
ATC / Advisory.UNICOM : ZZZ  
Aircraft Operator.Other  
Make Model Name : M-20 J (201) / Allegro  
Crew Size.Number Of Crew : 1  
Operating Under FAR Part : Part 91  
Mission.Other  
Flight Phase : Final Approach  
Airspace.Class E : ZZZ

## Person

Reference : 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 : Commercial  
Qualification.Flight Crew : Flight Instructor  
Experience.Flight Crew.Total : 710  
Experience.Flight Crew.Last 90 Days : 80  
Experience.Flight Crew.Type : 650  
ASRS Report Number.Accession Number : 1604071  
Human Factors : Situational Awareness  
Human Factors : Training / Qualification

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

## Events

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

## Assessments

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

## Narrative: 1

I was in Aircraft X with a student. We were doing pattern work on Runway XX at ZZZ airport along with two other aircraft and we were on final approach for [Runway] XX when Aircraft Y reported 3 mile final for [Runway] XX. He had been reporting a straight-in approach for [Runway] XX since 10 miles out, but as I came over the threshold of [Runway] XX, I noticed he was over the threshold of the opposing Runway XY. I immediately had my student do a go-around and miss going head-on into this traffic reporting the wrong runway. After we called our go-around, there was no more radio calls from Aircraft Y. This pilot clearly needs to be contacted by the proper authorities and possibly needs to go back and be retrained.

## Synopsis

Cessna 172 instructor pilot reported a NMAC with opposite direction traffic attempting to land on the same runway.

## Time / Day

Date : 201812

## Place

Locale Reference.Airport : ZZZ.Airport

State Reference : US

Altitude.AGL.Single Value : 5

## Environment

Flight Conditions : VMC

Light : Daylight

## 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 : 2

Operating Under FAR Part : Part 91

Flight Plan : None

Mission : Training

Flight Phase : Landing

Route In Use : Visual Approach

Airspace.Class E : ZZZ

## Aircraft : 2

ATC / Advisory.CTAF : ZZZ

Make Model Name : Cessna Aircraft Undifferentiated or Other Model

Operating Under FAR Part : Part 91

Flight Phase : Taxi

## Person

Reference : 1

Location Of Person.Aircraft : X

Location In Aircraft : Flight Deck

Reporter Organization : FBO

Function.Flight Crew : Pilot Flying

Qualification.Flight Crew : Multiengine

Qualification.Flight Crew : Commercial

Qualification.Flight Crew : Flight Instructor

Qualification.Flight Crew : Instrument

Experience.Flight Crew.Last 90 Days : 53

Experience.Flight Crew.Type : 210

ASRS Report Number.Accession Number : 1603772

Human Factors : Communication Breakdown

Communication Breakdown.Party1 : Flight Crew

Communication Breakdown.Party2 : Flight Crew

## Events

Anomaly.Conflict : Ground Conflict, Critical  
Anomaly.Deviation - Procedural : Published Material / Policy  
Anomaly.Ground Incursion : Runway  
Detector.Person : Flight Crew  
Miss Distance.Horizontal : 0  
Miss Distance.Vertical : 10  
When Detected : In-flight  
Result.Flight Crew : Took Evasive Action

## Assessments

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

## Narrative: 1

While performing flight training in the pattern at ZZZ, a runway incursion almost created an accident. While 3 aircraft are in the pattern all using Runway XX and all pilots communicating on the CTAF frequency, Aircraft Y entered active Runway XX during the touchdown phase of our landing. The aircraft was not talking on radios but looked like he was going to stop at the hold short line so we made the decision to continue. On round out just before touchdown aircraft entered runway and a go-around was executed. We missed aircraft by about 10 feet. That aircraft then continued to taxi to Runway XY and departed. I called him on the radios and the pilot responded "Sorry didn't see you." He also stated he was using his radios but no other aircraft nor the FBO could hear him.

## Synopsis

PA-28 flight instructor reported a critical ground conflict when an aircraft taxied onto the runway, requiring evasive action.

## Time / Day

Date : 201812  
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  
Ceiling.Single Value : 11000

## 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 : Landing  
Route In Use : Visual Approach

## Component

Aircraft Component : Nosewheel Steering  
Aircraft Reference : X  
Problem : Malfunctioning

## Person

Reference : 1  
Location In Aircraft : Flight Deck  
Reporter Organization : FBO  
Function.Flight Crew : Instructor  
Function.Flight Crew : Pilot Not Flying  
Qualification.Flight Crew : Instrument  
Qualification.Flight Crew : Commercial  
Qualification.Flight Crew : Flight Instructor  
Experience.Flight Crew.Total : 800  
Experience.Flight Crew.Last 90 Days : 150  
Experience.Flight Crew.Type : 500  
ASRS Report Number.Accession Number : 1603749  
Human Factors : Training / Qualification

## Events



Anomaly.Aircraft Equipment Problem : Less Severe  
Anomaly.Deviation - Procedural : Published Material / Policy  
Anomaly.Ground Excursion : Runway  
Anomaly.Ground Event / Encounter : Loss Of Aircraft Control  
Detector.Person : Flight Crew  
When Detected : In-flight  
Result.General : Maintenance Action  
Result.Flight Crew : Overcame Equipment Problem  
Result.Flight Crew : Regained Aircraft Control

## Assessments

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

## Narrative: 1

Private pilot initial training flight commenced as normal with touch-and-go operations at the ZZZ airport. Returning to home base, ZZZ1, the flight was cleared to land Runway XX with a direct headwind. The descent began 2.5 miles from the runway threshold at 1,000 ft with power reduced and flaps set. The glide path PAPI indicators displayed a normal descent at 65 knots (landing speed for the C-172). The landing occurred within the first third of the runway just before taxiway on the runway surface. Afterwards, a rollout was initiated and flaps removed. Thereafter, the nose gear began to shimmy and immediately the student pulled back on the control yoke initiating a climb. The Instructor Pilot pushed the nose down to avoid a stalled condition after hearing the audible stall warning indication. This led to a bounced landing and then a gradual pull back on the yoke to settle the main tires on the runway surface. This was accomplished before the halfway point of Runway XX. However, the aircraft's ground speed was still quite high and brakes were applied- but to no effect. Aerodynamic braking was then applied and the nose gear shimmied again, violently. Back pressure was then applied to remove the shimmy. The brakes were then forcibly pumped to create hydraulic pressure and to some "limited" effect they worked; however, it did not keep the aircraft from coming to a complete stop 5 feet off the end of Runway XX surface on the grassy end before the marsh. ATIS (Automatic Terminal Information Service) information winds 060 degrees at 6 knots, weather better than 5,000 feet and 5 SM visibility, temperature 17 Celsius, dew-point 12 Celsius and altimeter setting 30.04 in HG. No injuries were reported nor observed and no damage to the aircraft except a minor wear in tread depth in the right tire (bald spot) was observed and promptly rectified.

## Synopsis

C172 flight instructor reported a loss of control and runway excursion due to student pilot induced oscillations during landing rollout.

## Time / Day

Date : 201812  
Local Time Of Day : 0601-1200

## Place

Locale Reference.Airport : ZZZ.Airport  
State Reference : US  
Relative Position.Distance.Nautical Miles : 10  
Altitude.MSL.Single Value : 3000

## Environment

Flight Conditions : VMC

## Aircraft

Reference : X  
ATC / Advisory.Tower : ZZZ  
Aircraft Operator : Personal  
Make Model Name : PA-44 Seminole/Turbo Seminole  
Crew Size.Number Of Crew : 2  
Operating Under FAR Part : Part 91  
Flight Plan : None  
Mission : Training  
Flight Phase : Climb  
Route In Use : None  
Airspace.Class E : ZZZ

## Component

Aircraft Component : Engine  
Aircraft Reference : X  
Problem : Failed

## Person

Reference : 1  
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 : Instrument  
Qualification.Flight Crew : Commercial  
Qualification.Flight Crew : Flight Instructor  
Qualification.Flight Crew : Multiengine  
Experience.Flight Crew.Total : 800  
Experience.Flight Crew.Last 90 Days : 170  
Experience.Flight Crew.Type : 220  
ASRS Report Number.Accession Number : 1603466

## Events

Anomaly.Aircraft Equipment Problem : Critical  
Detector.Person : Flight Crew  
When Detected : In-flight  
Result.Flight Crew : Landed in Emergency Condition  
Result.Air Traffic Control : Issued New Clearance

## Assessments

Contributing Factors / Situations : Aircraft  
Primary Problem : Aircraft

## Narrative: 1

I departed on a PA-44 training flight with a student. We did two laps in the pattern working on landings. After which we departed and headed towards the NE practice area. At approximately 2,500 feet I noticed the engine was running extremely roughly. Suspecting the mixture was too rich I pulled the mixture back (less than 1 cm) the engine failed at that point. I re-added the mixture but noticed no change in power. I ran the engine out and troubleshoot checklists to no avail. I turned the aircraft towards ZZZ and contacted Tower to let them know I was coming in. Tower [acknowledged the situation], as I made a (fairly) straightforward approach and landing single engine. After landing the left engine was still running so I was able to taxi back to parking safely with no damage or injuries.

## Synopsis

PA-44 instructor pilot reported an engine failure led to a single engine approach and landing.

## Time / Day

Date : 201812

Local Time Of Day : 1201-1800

## Place

Locale Reference.Airport : ZZZ.Airport

State Reference : US

Altitude.MSL.Single Value : 15000

## Environment

Weather Elements / Visibility : Rain

Weather Elements / Visibility : Turbulence

Light : Daylight

## Aircraft

Reference : X

ATC / Advisory.Center : ZZZ

Aircraft Operator : FBO

Make Model Name : King Air C90 E90

Crew Size.Number Of Crew : 2

Operating Under FAR Part : Part 91

Flight Plan : IFR

Mission : Training

Flight Phase : Cruise

Airspace.Class E : ZZZ

## Person

Reference : 1

Location Of Person.Aircraft : X

Location In Aircraft : Flight Deck

Reporter Organization : FBO

Function.Flight Crew : Captain

Function.Flight Crew : Instructor

Function.Flight Crew : Pilot Flying

Qualification.Flight Crew : Instrument

Qualification.Flight Crew : Air Transport Pilot (ATP)

Qualification.Flight Crew : Flight Instructor

Qualification.Flight Crew : Multiengine

Experience.Flight Crew.Total : 3400

Experience.Flight Crew.Last 90 Days : 200

Experience.Flight Crew.Type : 1000

ASRS Report Number.Accession Number : 1603439

Human Factors : Situational Awareness

## Events

Anomaly.Deviation - Altitude : Excursion From Assigned Altitude

Anomaly.Deviation - Track / Heading : All Types

Anomaly.Deviation - Procedural : Published Material / Policy

Anomaly.Ground Event / Encounter : Loss Of Aircraft Control

Anomaly.Inflight Event / Encounter : Weather / Turbulence  
Detector.Person : Flight Crew  
When Detected : In-flight  
Result.Flight Crew : Regained Aircraft Control

## Assessments

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

## Narrative: 1

There was a lot of hazardous weather in the region: high winds at most airports to the south, low IFR most places along the coast, convective activity around [the area], and a SIGMET for turbulence and LLWS on the east side of the [mountains]. I chose ZZZ because it was one of the only airports I could find that would keep me out of all the (above) weather. Still, I was expecting to encounter some ice and some turbulence on the flight. Enroute to ZZZ, we encountered mostly smooth air, and light-to-moderate chop turbulence for about 1/4 of the cruise segment; approximately as we flew over [a mountain], we encountered a brief stretch of severe turbulence: I was unable to control the airplane for what I think was about 20 seconds, aside from bringing the power back to 400 LBS per side and keeping the aircraft oriented top-side-up.

During this time we had rather violent altitude fluctuations of approximately +/- 300 feet, heading changes of +/- 30 degrees. All three occupants fortunately were securely seat belted, so we did not sustain any injuries. After the air smoothed out again, we were able to initiate our descent into ZZZ and continue the flight without incident. On the ground in ZZZ, I considered whether or not to fly back to ZZZ1 in similar weather conditions. Based on the fact that we only encountered the severe turbulence in one location for a brief time, and the fact that I was planning to use different routing and different altitude for the leg home, I decided to fly back to ZZZ1 and did so with no further incident. Upon arrival at ZZZ1, I notified [the Operations Manager] and he offered to research whether or not it would be prudent for us to do any inspections on the aircraft. A post-flight walk-around inspection did not reveal any damage to the aircraft.

## Synopsis

King Air Captain reported encountering severe turbulence prior to landing and then departing again prior to completion of a severe turbulence inspection.

## Time / Day

Date : 201812

## Place

Locale Reference.Airport : ZZZ.Airport

State Reference : US

Altitude.AGL.Single Value : 0

## Environment

Flight Conditions : VMC

## Aircraft

Reference : X

ATC / Advisory.CTAF : ZZZ

Aircraft Operator : Personal

Make Model Name : Skyhawk 172/Cutlass 172

Crew Size.Number Of Crew : 2

Operating Under FAR Part : Part 91

Mission : Training

Flight Phase : Takeoff

## Person

Reference : 1

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 : Commercial

Qualification.Flight Crew : Multiengine

Qualification.Flight Crew : Instrument

Experience.Flight Crew.Total : 1440

Experience.Flight Crew.Last 90 Days : 250

Experience.Flight Crew.Type : 400

ASRS Report Number.Accession Number : 1602841

Human Factors : Communication Breakdown

Communication Breakdown.Party1 : Flight Crew

Communication Breakdown.Party2 : Flight Crew

## Events

Anomaly.Deviation - Procedural : Published Material / Policy

Anomaly.Ground Event / Encounter : Ground Strike - Aircraft

Detector.Person : Flight Crew

When Detected : In-flight

Result.Aircraft : Aircraft Damaged

## Assessments

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

### Narrative: 1

I was instructing a new student pilot in his second lesson. For takeoff I was in the controls and I told him I would tell him when to pull on the yoke to rotate. My mistake was not telling him how hard to pull. He pulled the yoke very hard till it nearly hit the stops resulting in a tail strike which broke the tail tie down ring off the airplane. I pushed hard forward recovering the airplane and continued the takeoff under my control. I did not realize there had been a tail strike otherwise I would have circled around to land. When I got back to the ramp I realized the ring was missing and realized it had to have been from the tail strike. It will not happen again because I will always describe a rotation to a student in greater detail and guard the controls more closely with new students [are] doing takeoffs.

### Synopsis

C172 instructor reported experiencing a tail strike during rotation due to student pulling too hard on the yoke.

## Time / Day

Date : 201812  
Local Time Of Day : 1201-1800

## Place

Locale Reference.ATC Facility : ZZZ.ARTCC  
State Reference : US  
Relative Position.Distance.Nautical Miles : 30  
Altitude.MSL.Single Value : 4500

## Environment

Flight Conditions : Mixed  
Weather Elements / Visibility : Haze / Smoke  
Weather Elements / Visibility : Fog  
Weather Elements / Visibility : Rain  
Weather Elements / Visibility : Turbulence  
Weather Elements / Visibility.Visibility : .5  
Light : Daylight  
Ceiling.Single Value : 6000

## Aircraft

Reference : X  
ATC / Advisory.Center : 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 : VFR  
Mission : Training  
Flight Phase : Cruise  
Route In Use : Direct  
Airspace.Class E : ZZZ

## Person

Reference : 1  
Location Of Person.Aircraft : X  
Location In Aircraft : Flight Deck  
Reporter Organization : FBO  
Function.Flight Crew : Single Pilot  
Function.Flight Crew : Pilot Flying  
Qualification.Flight Crew : Private  
Experience.Flight Crew.Total : 150  
Experience.Flight Crew.Last 90 Days : 6  
Experience.Flight Crew.Type : 142  
ASRS Report Number.Accession Number : 1602821  
Human Factors : Training / Qualification  
Human Factors : Situational Awareness

## Events



Anomaly.Airspace Violation : All Types  
Anomaly.Deviation - Procedural : FAR  
Anomaly.Inflight Event / Encounter : Weather / Turbulence  
Anomaly.Inflight Event / Encounter : VFR In IMC  
Detector.Person : Flight Crew  
When Detected : In-flight  
Result.Flight Crew : Took Evasive Action  
Result.Flight Crew : Exited Penetrated Airspace  
Result.Air Traffic Control : Provided Assistance

## Assessments

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

## Narrative: 1

When I was on my flight to ZZZ airport, I noticed clouds and precipitation to the south/southwest, that's when I listened to ZZZ1 airport ASOS. It had said that there was no precipitation and clouds were still high. When I got the clearance to come into ZZZ airport on a right base leg for Runway XX, it was clear to see that there were haze and mist to the south/southeast. My original plan was to do a full stop taxi back Runway XX. Given the weather I saw coming, I decided to park and go into the FBO to check the weather again. I saw on radar through 1800wxbrief.com that a storm was passing through. I checked the METARs and they were saying clouds 6,000 feet overcast and 7sm visibility. I decided to take off; I got to 2,300 feet MSL to see that visibility was around 3sm, I decided to come back to ZZZ to land. Tower even said they had lost sight of me when I was on base leg to final Runway XX. I landed and parked the plane again and looked at the radar, it showed a massive storm directly to my south going northeast and a small storm about to hit and soon pass. I made the decision to refuel and preflight at ZZZ so when I did get the pocket to leave I could do it without wasting time. My next stop was planned for ZZZ2 airport. I looked at METARs from ZZZ to ZZZ2 and forecasts, ZZZ2 showed it was 6,000 foot overcast and 10sm visibility. ZZZ was reporting overcast 6,000 foot clouds, mist, and 4sm visibility. I could clearly see that visibility was less and I proceeded to wait until the storm had passed until I got my pocket of clarity. I had discussed my plan with my Flight Instructor and he saw what was happening on radar and METARs forecasted for ZZZ, ZZZ2, and ZZZ3. He agreed with my plan and said once I get the visibility and clouds I need to get out of there. When I noticed it was clearing up and visibility was clearing, I called a weather briefer and he told me the same thing as the METARs, he advised me to be very careful on my flight. Going into the flight, I knew I had to be cautious because of the visibility, clouds, and higher elevation due to hilly terrain. I departed ZZZ and activated my VFR flight plan from ZZZ to ZZZ2. I had planned to cruise at 4,500 feet giving me enough room to be below the overcast clouds. Visibility was at 5sm with haze/mist mixture, any lower I would've turned around immediately and probably would have spent the night at ZZZ. ZZZ Tower had put me on flight following to ZZZ2 with the intention of doing a touch and go and departing immediately to ZZZ4. ZZZ Tower transferred me to ATC Radio. For the first 15 minutes of my flight to ZZZ2 visibility was clearing to 10sm and clouds at 6,000 feet. I could clearly see a massive shelf cloud that was not forecast to my northeast going east. I could clearly see the ground below to check off my VFR checkpoints. When I reached 4,500 feet I had noticed the shelf cloud to be below me, so I stayed at 4,500 feet. When I reached my third VFR checkpoint that's when I saw clouds had moved in behind and to both sides of me. At that time as well, ATC Radio had transferred me to ATC Center. I told ATC Center, [I was at 4,500ft]. We had

radar contact, shortly after I told them there were clouds ahead of me and I didn't know what to do, I needed help. The shelf cloud looked to be 3,000 feet to 6,000 feet. I had lost sight of the ground due to fog as well. As I was looking for ground or an opening, I ended up going into the cloud. I notified ATC Center and told them I was not IFR rated, and that I was now in the cloud for a total time of 10 seconds. I knew I was in a cloud because as I looked outside the cockpit it was a complete whiteout and I was surrounded. When I was in the cloud, I immediately looked at my instruments keeping my heading and altitude the same and made sure to not panic or move around to get disoriented. When I got out of the cloud, I could clearly see a few clouds ahead of me and I had broken FAR 91.155 basic VFR weather minimums, being in class E airspace. I also checked periodically to make sure there was no icing on the wings. Right after I got out of the cloud, I asked about ZZZ2 weather and they said visibility was roughly 1sm or 1.5sm, that's when I decided to divert towards ZZZ4. I immediately put into the GPS so I knew exactly where I was going and asked if I could descend from 4,500 feet to 4,000 feet to get below the clouds ahead of me. I knew the clouds would end shortly because ATC Center had told me a local PIREP stating it was 10sm visibility and 6,000 feet overcast. Again, I looked around the surrounding area and there were still clouds behind, left, right, and now ahead of me. Also, it was heavy fog and haze below me. ATC Center asked if I could see the ground or dodge the clouds because they needed 2 miles to figure out a better plan for me, I responded and said that it was patchy below me and I could stay away from the clouds. I asked if I could descend again to 3,800 feet cruising altitude, they responded with altitude was at my discretion, just to try and stay on a constant heading. They came back and said to stay on course to ZZZ4 airport and altitude at my discretion. During the duration of the time I was talking to ATC Center, I asked if they could change my VFR flight plan from ZZZ to ZZZ2, to ZZZ to ZZZ4. They responded and said they had already changed it. The clouds started to break, there was still heavy fog below me that I could see ending and overcast of 11,000 feet as was forecast from ZZZ3 METAR. The fog below was curved and looked to be ending halfway in-between when I diverted and ZZZ3 airport. At that point, ATC Center had transferred me to ZZZ3 Approach. I contacted ZZZ3 Approach, [and advised them I was at 3,600 feet]. I had lowered my altitude after the break of heavy fog. ATC responded with two-way communication and radar contact. Also, it started to get darker, so I decided to turn on my navigation lights to ensure anyone around me could see me. When I got closer to their airspace, they told [me] to cruise at 3,500 feet. Then they told me to fly VFR at my discretion and to have a good flight. Between the cloud break and when I landed at ZZZ4, my flight was smooth no turbulence, no clouds, 10sm visibility, and clouds at 11,000 ft. overcast. I entered ZZZ4 entry corridors and landed smoothly. When I shut down, I closed my flight plan and reviewed the flight with my Flight Instructor.

The contributing factors of the flight were unexpected weather that no METAR or TAF was forecasting and reporting. I checked all my resources before taking off from ZZZ airport before I left. The leg from ZZZ to ZZZ2 is limited in weather reporting systems. The corrective actions I made was choosing to wait the first time from ZZZ and ultimately diverting to ZZZ4. Also, I changed my attitude to better understand what the clouds were and to make appropriate judgment calls based on what I saw. My concerns during the flight were the fact that I was breaking a regulation in an impossible situation, not being able to go anywhere without going through clouds, and how unexpected and fast moving the clouds were. I was not worried about going into the cloud because ATC Center was watching me on the radar, I was actively talking to them, and my instrument simulated training in the past had kept my head steady. I believe to ensure to not have a re-occurrence of what happened during this flight, is to stay at the airport on the ground until you for sure know all weather conditions are well above minimums.

## Synopsis

C172 pilot reported changing weather conditions resulted in a return to the field, multiple changes to the flight plan and operation in IMC conditions without an Instrument Rating.

## Time / Day

Date : 201812

Local Time Of Day : 0601-1200

## Place

Locale Reference.Airport : ZZZ.Airport

State Reference : US

## Environment

Light : Daylight

## Aircraft

Reference : X

ATC / Advisory.UNICOM : ZZZ

Aircraft Operator : FBO

Make Model Name : SR20

Crew Size.Number Of Crew : 2

Operating Under FAR Part : Part 91

Flight Plan : None

Mission : Training

Flight Phase : Final Approach

## Person

Reference : 1

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

ASRS Report Number.Accession Number : 1602491

Human Factors : Communication Breakdown

Human Factors : Situational Awareness

Communication Breakdown.Party1 : Flight Crew

Communication Breakdown.Party2 : Flight Crew

## Events

Anomaly.Conflict : NMAC

Anomaly.Deviation - Procedural : Published Material / Policy

Detector.Person : Flight Crew

When Detected : In-flight

Result.Flight Crew : Took Evasive Action

## Assessments

Contributing Factors / Situations : Procedure

Contributing Factors / Situations : Human Factors

Primary Problem : Human Factors

## Narrative: 1

While on midfield downwind on left traffic for Runway XX with the Student Pilot at the controls, I, the Instructor, realize of a traffic coming from the west slightly higher than traffic pattern altitude descending and heading towards our airplane. I announce "I have control" and I commence a pitch down to avoid otherwise an impact from the other airplane. The traffic never appeared on TCAD [Traffic Collision Avoidance Device] and I presumably did not have an operational transponder since the flight was not tracked by any software. After evasive action, the traffic joins the downwind very close to us while I am inquiring in frequency to attempt to communicate with that traffic. I established communication with the traffic and I arrange the sequence for the arrival to the runway ahead of that traffic.

## Synopsis

SR20 flight instructor reported an NMAC while operating in the pattern at a non-towered airport.

## Time / Day

Date : 201812  
Local Time Of Day : 1201-1800

## Place

Locale Reference.Airport : ZZZ.Airport  
State Reference : US  
Altitude.AGL.Single Value : 1400

## Environment

Flight Conditions : VMC  
Weather Elements / Visibility : Haze / Smoke  
Weather Elements / Visibility.Visibility : 6  
Light : Daylight  
Ceiling.Single Value : 3000

## Aircraft

Reference : X  
ATC / Advisory.Tower : ZZZ  
Make Model Name : Skyhawk 172/Cutlass 172  
Operating Under FAR Part : Part 91  
Flight Plan : IFR  
Mission : Training  
Flight Phase : Landing  
Route In Use : Visual Approach  
Airspace.Class D : ZZZ

## Person

Reference : 1  
Location Of Person.Aircraft : X  
Location In Aircraft : Flight Deck  
Function.Flight Crew : Pilot Not Flying  
Qualification.Flight Crew : Flight Instructor  
Qualification.Flight Crew : Commercial  
Qualification.Flight Crew : Multiengine  
Qualification.Flight Crew : Instrument  
Experience.Flight Crew.Total : 296  
Experience.Flight Crew.Last 90 Days : 29  
Experience.Flight Crew.Type : 78  
ASRS Report Number.Accession Number : 1602211  
Human Factors : Situational Awareness  
Human Factors : Communication Breakdown  
Communication Breakdown.Party1 : Flight Crew  
Communication Breakdown.Party2 : ATC

## Events

Anomaly.ATC Issue : All Types  
Anomaly.Conflict : Airborne Conflict  
Anomaly.Deviation - Procedural : Published Material / Policy

Detector.Person : Flight Crew  
Miss Distance.Horizontal : 1000  
When Detected : In-flight  
Result.Flight Crew : Took Evasive Action

## Assessments

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

## Narrative: 1

When flying into the pattern, there were 3 aircraft all coming in for a left base for runway 28 at ZZZ. We broke off our VOR A approach and started heading for the left base for runway 28. There were also 2 other aircraft converging for a left base for 28 as tower told them to fly there and report when there. There was a period of time (maybe 30 seconds) where 4 radio calls were made and the tower was not responding to us and the other pilots. These radio calls required responses as well as we were reporting that we were on the last base and other aircraft were making position reports.

All 3 of us altered our courses which involved my student and I climbing over final where traffic was located below us and sidestepping to the left to avoid another aircraft. We weren't extremely close to this traffic and the traffic was other 172's like ourselves. There was safe separation here. Evasive action was not taken but it was closer than I would have wanted it to be. I believe tower had a new employee in training or they were doing a shift change. Either way, we altered course and avoided the other aircraft or then asked tower were we should go and they then responded to us. They gave us a right downwind for runway 28 and I believe we were #5 for that runway.

## Synopsis

Cessna pilot reported 5 aircraft coming in from various directions to one runway, the pilots took it upon themselves to separate from each other since ATC did not separate or sequence the traffic.

## Time / Day

Date : 201812

## Place

Locale Reference.Airport : BOW.Airport  
State Reference : FL  
Relative Position.Angle.Radial : 0  
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 : 6000

## Aircraft

Reference : X  
ATC / Advisory.Tower : BOW  
Aircraft Operator : Government  
Make Model Name : De Havilland Canada Undifferentiated or Other Model  
Crew Size.Number Of Crew : 2  
Operating Under FAR Part : Part 91  
Flight Plan : VFR  
Mission : Training  
Flight Phase : Landing  
Route In Use : Vectors  
Airspace.Class D : BOW

## Person

Reference : 1  
Location Of Person.Aircraft : X  
Location In Aircraft : Flight Deck  
Reporter Organization : Government  
Function.Flight Crew : Captain  
Function.Flight Crew : Pilot Not Flying  
Qualification.Flight Crew : Multiengine  
Qualification.Flight Crew : Commercial  
Qualification.Flight Crew : Instrument  
Experience.Flight Crew.Total : 1450  
Experience.Flight Crew.Last 90 Days : 57  
Experience.Flight Crew.Type : 1250  
ASRS Report Number.Accession Number : 1602192  
Human Factors : Situational Awareness  
Human Factors : Training / Qualification  
Human Factors : Communication Breakdown  
Communication Breakdown.Party1 : Flight Crew  
Communication Breakdown.Party2 : ATC



## Events

Anomaly.Deviation - Procedural : Landing Without Clearance

Anomaly.Deviation - Procedural : Clearance

Anomaly.Ground Incursion : Runway

Detector.Person : Air Traffic Control

When Detected : Taxi

Result.Air Traffic Control : Provided Assistance

## Assessments

Contributing Factors / Situations : Human Factors

Primary Problem : Human Factors

## Narrative: 1

We were on approach VOR 09L (BOW) and in communication with BOW Tower. The Tower cleared us for the circle to land to Runway 5 and instructed us to report when we commenced our circle. We completed our circle to land and landed without incident on Runway 5. While rolling out on Runway 5, we asked the Tower for taxi instructions to [Runway] 09L where we wanted to completed touch-and-goes. The Tower responded that we had not reported our circle-to-land and had not received a landing clearance for Runway 5.

I believe the problem was caused by proficiency and task saturation. I have not flown in this aircraft since late [date removed], flown approximately 5 hours total since that time, not completed a circle-to-land in a long time and not operated in BOW before. In terms of task saturation, I was flying with a newer copilot and had a brand new copilot observing from the cabin. Lastly, fatigue played an issue as we were two hours into our training flight and had already completed an approach to holding pattern, air maneuvers and then an approach into BOW.

## Synopsis

Pilot reported landing with out clearance after ATC advised they did not report commencing a circle to land.

## Time / Day

Date : 201812  
Local Time Of Day : 1201-1800

## Place

Locale Reference.Airport : ZZZ.Airport  
State Reference : US  
Relative Position.Angle.Radial : 030  
Relative Position.Distance.Nautical Miles : 5  
Altitude.MSL.Single Value : 4000

## Environment

Flight Conditions : VMC  
Weather Elements / Visibility : Icing  
Weather Elements / Visibility.Visibility : 10  
Light : Daylight  
Ceiling.Single Value : 4000

## Aircraft

Reference : X  
ATC / Advisory.TRACON : ZZZ  
Aircraft Operator : Personal  
Make Model Name : PA-44 Seminole/Turbo Seminole  
Crew Size.Number Of Crew : 2  
Operating Under FAR Part : Part 91  
Flight Plan : IFR  
Mission : Training  
Flight Phase : Initial Approach  
Route In Use : Vectors  
Airspace.Class E : ZZZ

## Person

Reference : 1  
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 : Multiengine  
Qualification.Flight Crew : Commercial  
Qualification.Flight Crew : Flight Instructor  
Qualification.Flight Crew : Instrument  
Experience.Flight Crew.Total : 715  
Experience.Flight Crew.Last 90 Days : 180  
Experience.Flight Crew.Type : 130  
ASRS Report Number.Accession Number : 1601944  
Human Factors : Time Pressure  
Human Factors : Communication Breakdown  
Human Factors : Situational Awareness

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

## Events

Anomaly.ATC Issue : All Types  
Anomaly.Deviation - Track / Heading : All Types  
Anomaly.Deviation - Procedural : Clearance  
Anomaly.Inflight Event / Encounter : Weather / Turbulence  
Detector.Person : Flight Crew  
Detector.Person : Air Traffic Control  
When Detected : In-flight  
Result.Flight Crew : Took Evasive Action  
Result.Flight Crew : Returned To Clearance  
Result.Flight Crew : Requested ATC Assistance / Clarification  
Result.Air Traffic Control : Issued New Clearance

## Assessments

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

## Narrative: 1

I departed ZZZ on an instructional flight in an IFR flight plan to try to get VFR on top for training maneuvers. When leveled at 4,000 feet MSL, I was in VFR conditions between two layers and requesting radar vectors to get to an area with better conditions; I was instructed to climb to 6,000 feet but due to the outside temperature being 0 [degrees] Celsius, I told ATC I was unable to climb to avoid icing conditions. As I continued on a heading of 180 as instructed by ATC, I realized I was not going to be able to get into an area of better weather conditions so I requested to go back to ZZZ on the RNAV XXL Approach. As I proceeded southbound, I saw some clouds in my way so I asked for different headings to try to avoid those clouds and thus getting into icing since my aircraft is not rated for flights into known icing. Since ATC didn't give me the vectors I required I turned right to a heading of 210 to avoid this one cloud and once I started turning back to my assigned heading ATC asked me for which heading I was flying, and once I told I was turning back to 180, they gave me a phone number to call for possible pilot deviation. After that I continued following the vectors, ended up going into clouds but did not pick up any icing and landed safely at ZZZ without other problems.

## Synopsis

PA44 pilot reported a heading deviation when ATC was slow in providing vectors around weather.

## Time / Day

Date : 201812

Local Time Of Day : 1201-1800

## Place

Locale Reference.Airport : ZZZ.Airport

State Reference : US

Altitude.AGL.Single Value : 0

## Environment

Flight Conditions : VMC

## Aircraft

Reference : X

Aircraft Operator : Personal

Make Model Name : Airliner 99

Crew Size.Number Of Crew : 2

Operating Under FAR Part : Part 91

Flight Plan : IFR

Mission : Training

Flight Phase : Taxi

Route In Use : Direct

## Person

Reference : 1

Location Of Person.Aircraft : X

Location In Aircraft : Flight Deck

Reporter Organization : Personal

Function.Flight Crew : First Officer

Qualification.Flight Crew : Instrument

Qualification.Flight Crew : Commercial

Qualification.Flight Crew : Multiengine

Experience.Flight Crew.Total : 522

Experience.Flight Crew.Last 90 Days : 2

Experience.Flight Crew.Type : 2

ASRS Report Number.Accession Number : 1601647

Human Factors : Training / Qualification

Human Factors : Situational Awareness

Human Factors : Time Pressure

## Events

Anomaly.Aircraft Equipment Problem : Less Severe

Anomaly.Flight Deck / Cabin / Aircraft Event : Other / Unknown

Anomaly.Ground Excursion : Taxiway

Anomaly.Ground Event / Encounter : Loss Of Aircraft Control

Detector.Person : Flight Crew

When Detected : Taxi

Result.Flight Crew : Regained Aircraft Control

## Assessments

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

## Narrative: 1

A loss of control during taxi occurred causing the aircraft to leave the taxiway and come to rest on an embankment to the right of taxiway B. The flight was a post maintenance and familiarization flight.

After returning from lunch at a local restaurant, we preflighted the aircraft and filed and instrument flight plan in preparation for returning to our base of operations. The Captain, myself and another First Officer (FO) boarded the aircraft and completed cockpit procedures and started the aircraft. I was in the right seat as FO. We received our taxi clearance from the tower and followed the lineman's direction as we taxied from the ramp to taxiway B. The Captain set the power for taxi and began to taxi the aircraft southwest bound on taxiway B. The Captain asked me to take over the movement of the aircraft during the taxi phase, approximately adjacent taxiway B4 on taxiway B. While I was involved in the taxi, the Captain was "head down" in the aircraft completing other duties. Upon receiving positive control of the aircraft I perceived that the aircraft was moving at a rate of speed that was faster than other aircraft I have operated. I considered the speed to be fast but normal for this aircraft due to my level of familiarity with the aircraft. However, I was applying intermittent braking to manage the speed. As we approached a southerly turn in taxiway B, I brought the power back to the reverse region and to slow the aircraft down to negotiate the left turn. The aircraft did not slow down so I and the Captain applied more braking pressure to retard the speed. The aircraft did not turn left and follow the taxiway centerline but continued in a southwesterly direction and left taxiway B. As the aircraft continued through the grass off taxiway B it began a left turn and slid down the embankment. The aircraft came to rest parallel to the southerly heading portion of taxiway B when the right main gear became mired in the soft ground at the bottom of the embankment. The Captain immediately brought the condition levers the "Idle Cutoff" position and once the aircraft was completely powered down, called our base to explain the situation and get direction on how to proceed. Our base advised us to leave the airplane as it sat and began to coordinate with ground crews from the airport authority to make arrangements for a local company with which they were familiar, to move the aircraft back to the taxiway. That operation was successful and the following day another crew was dispatched to fly the aircraft back to our base.

I think the problem arose from my lack of familiarity with the aircraft's handling characteristics, my lack of experience in operating an aircraft with a "beta" range and a reversible pitch propeller. I also feel that the Captain should have paid more attention to my movements and actions due to my inexperience. Additionally, during a prop governor test earlier in the day, I noticed that full braking by the Captain and the other FO, would barely hold the aircraft steady during the test while testing only one engine. During the test, the aircraft yawed the right moving the nose approximately two feet. I can't be certain that a prop governor issue or an asymmetric thrust issue contributed to the incident but I suppose those could be possibilities. Later in the evening both I and the additional FO, who flew the leg from our base to ZZZ, discussed checklist usage. In the course of that discussion we discovered that we both felt that checklist usage was being rushed and that we felt behind the aircraft due to how fast the Captain wanted the checklists completed. He indicated to me that he also thought the aircraft taxied at an

elevated rate of speed. The next day I indicated to the Captain that on the next flight I would like to slow the checklist process down and build some familiarity. I have had a discussion with our operations department and have given feedback as to how I would proceed with training in order to prevent another incident like this one. I have also re-examined my personal minimums in order to direct how I should operate unfamiliar aircraft and interact with other flight officers when I feel their actions may put flight safety in jeopardy.

## Synopsis

Beechcraft 99 First Officer reported a loss of control and taxiway excursion during taxi.

## Time / Day

Date : 201812  
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  
Weather Elements / Visibility.Other  
Light : Daylight

## Aircraft : 1

Reference : X  
Aircraft Operator : Personal  
Make Model Name : Cessna 162 Skycatcher  
Crew Size.Number Of Crew : 1  
Operating Under FAR Part : Part 91  
Flight Plan : VFR  
Mission : Training  
Flight Phase : Taxi  
Route In Use : Vectors

## Aircraft : 2

Reference : Y  
Make Model Name : Commercial Fixed Wing  
Flight Phase : Parked

## Person

Reference : 1  
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 : Instrument  
Qualification.Flight Crew : Private  
Experience.Flight Crew.Total : 193  
Experience.Flight Crew.Last 90 Days : 26  
Experience.Flight Crew.Type : 3  
ASRS Report Number.Accession Number : 1601327  
Human Factors : Situational Awareness  
Human Factors : Communication Breakdown  
Communication Breakdown.Party1 : Flight Crew  
Communication Breakdown.Party2 : Ground Personnel

## Events

Anomaly.Ground Event / Encounter : Aircraft

Detector.Person : Flight Crew

When Detected : Taxi

Result.General : None Reported / Taken

## Assessments

Contributing Factors / Situations : Environment - Non Weather Related

Contributing Factors / Situations : Human Factors

Primary Problem : Human Factors

## Narrative: 1

When I just landed at ZZZ, Ground gave me instruction to taxi via Bravo-Echo (for refueling). So after that I went to the parking spot and parked my plane, and one gentleman from [the FBO] came and told me to move my plane all the way to the end to park my plane because the current place is for helipad (in my defense they didn't put any sign for the helipad, etc.), so I agreed to taxi the plane to the very end of their parking spot.

When I am taxiing until the end, my parking spot was on the right side, the ground crew from [the FBO] gave me a turn sign (turn lights sign), instead of turn off the plane, so we can tow the plane and park (give an X sign).

Before I can proceed my turn, I was pointed to the jet airplane that parked on my left side and the ground crew keep giving a sign for me to turn (because the ground crew parked his golf cart on the right side of my wings). With caution I proceeded to turn and I collide with the very tip part of the jet airplane wing. Before the accident happened there wasn't any cones around the jet plane.

As the pilot-in-command I failed to secure the safety of my aircraft, and will evaluate this as part of learning process for me to be a safe and professional pilot.

## Synopsis

C162 pilot reported contacting the wingtip of a parked aircraft during taxi to parking spot.



## Time / Day

Date : 201812

Local Time Of Day : 0601-1200

## Place

Locale Reference.Airport : ZZZ.Airport

State Reference : US

Altitude.MSL.Single Value : 1082

## Environment

Flight Conditions : VMC

Weather Elements / Visibility.Visibility : 10

Light : Daylight

Ceiling.Single Value : 10000

## Aircraft

Reference : X

Aircraft Operator : Personal

Make Model Name : SR20

Crew Size.Number Of Crew : 1

Operating Under FAR Part : Part 91

Flight Plan : None

Mission : Training

Flight Phase : Landing

## Person

Reference : 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 : 34

Experience.Flight Crew.Last 90 Days : 31

Experience.Flight Crew.Type : 34

ASRS Report Number.Accession Number : 1600912

Human Factors : Training / Qualification

Human Factors : Situational Awareness

## 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.Flight Crew : Regained Aircraft Control

## Assessments

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

## Narrative: 1

On landing, drifted left off center line. Winds were 040@7 at the time Landed on runway X - went off the left of the runway and was able to correct back onto the runway. Struck a light was able to taxi and park the aircraft without further incident.

Corrective action would have been to go-around and not complete the landing.

## Synopsis

SR20 pilot reported a loss of control during landing resulted in a runway excursion and contact with a runway light.

## Time / Day

Date : 201812  
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  
Ceiling.Single Value : 20000

## Aircraft

Reference : X  
ATC / Advisory.Tower : ZZZ  
Aircraft Operator : FBO  
Make Model Name : PA-28R Cherokee Arrow All Series  
Crew Size.Number Of Crew : 2  
Operating Under FAR Part : Part 91  
Flight Plan : None  
Mission : Training  
Flight Phase : Landing  
Route In Use : Direct  
Airspace.Class D : ZZZ

## Component

Aircraft Component : Nose Gear  
Aircraft Reference : X  
Problem : Failed

## Person

Reference : 1  
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 : Instrument  
Qualification.Flight Crew : Commercial  
Qualification.Flight Crew : Flight Instructor  
Qualification.Flight Crew : Multiengine  
Experience.Flight Crew.Total : 1050  
Experience.Flight Crew.Last 90 Days : 150  
Experience.Flight Crew.Type : 1010  
ASRS Report Number.Accession Number : 1600881

## Events

Anomaly.Aircraft Equipment Problem : Less Severe  
Anomaly.Ground Event / Encounter : Other / Unknown  
Detector.Person : Flight Crew  
When Detected : In-flight  
Result.Aircraft : Aircraft Damaged

## Assessments

Contributing Factors / Situations : Aircraft  
Primary Problem : Aircraft

## Narrative: 1

While landing my aircraft experienced a nose landing gear failure during the rollout phase of landing. Prior to touchdown, the landing gear selector was selected to the down position and the three green down and locked landing gear indicator lights were on. The landing gear indicator lights were verified down prior to turning base, again on base, and finally on final. Nothing about the landing was abnormal. Once we smoothly touched down on the main landing gear, the nose landing gear smoothly lowered. Upon touching down, the nose landing gear collapsed. No injuries were sustained. Tower notified airport operations and the aircraft was removed from the runway.

## Synopsis

PA28 instructor pilot reported the nose landing gear collapsed during landing. No abnormalities were noted prior to touchdown.

## Time / Day

Date : 201812  
Local Time Of Day : 0601-1200

## Place

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

## Environment

Flight Conditions : VMC  
Light : Daylight

## Aircraft

Reference : X  
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 : Landing  
Route In Use : None

## Component

Aircraft Component : Normal Brake System  
Aircraft Reference : X  
Problem : Improperly Operated

## Person

Reference : 1  
Location Of Person.Aircraft : X  
Location In Aircraft : Flight Deck  
Reporter Organization : Personal  
Function.Flight Crew : Pilot Flying  
Qualification.Flight Crew : Student  
Experience.Flight Crew.Total : 22  
Experience.Flight Crew.Last 90 Days : 19  
Experience.Flight Crew.Type : 22  
ASRS Report Number.Accession Number : 1600875  
Human Factors : Training / Qualification

## 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  
Result.Air Traffic Control : Provided Assistance

## Assessments

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

## Narrative: 1

ATC directed me to turn left downwind for [the] runway. I added one notch of flaps when abeam on downwind as usual. I start slowing down and dropping the nose as usual. The second flap added once on left base for [the runway]. Traffic was ahead and landed. I am cleared for the touch and go. Turn final and last flap. Slow the plane down to normal landing speed. Establish the best glide slope. Plane touches ground a bit to the left of centerline but still not far enough to warrant a go-around. Begin flare. Plane slows down. Nose touches ground. Upon touching ground, apply a little right rudder to get to centerline, but plane seems to turn violently (likely due to braking action). Then, it starts to skid on the runway. Plane swerving towards to direction of being perpendicular to the actual runway. I retract flaps to try to gain better control of the plane but by the time I try to apply left rudder to straighten out the plane, plane runs off runway and into grass. I apply left rudder and slam on brakes to try to get the plane to stop. Plane comes to a full stop to the right of [the] runway. ATC calls to ask if I'm okay. I say that I am okay, plane seems to be okay and undamaged, and will commence engine shutdown. ATC responds with "Roger" and that they will send a firetruck to my site. I shut the plane down, call my instructor to let him know what happened, and exit the plane.

## Synopsis

PA-28 student pilot reported a loss of control on landing that resulted in a runway excursion.

## Time / Day

Date : 201812

Local Time Of Day : 1201-1800

## Place

Locale Reference.Airport : ZZZ.Airport

State Reference : US

## Environment

Flight Conditions : VMC

Weather Elements / Visibility.Visibility : 10

Light : Daylight

Ceiling.Single Value : 5500

## Aircraft

Reference : X

ATC / Advisory.Tower : ZZZ

Aircraft Operator : FBO

Make Model Name : Cessna 152

Crew Size.Number Of Crew : 1

Operating Under FAR Part : Part 91

Flight Plan : None

Mission : Training

Flight Phase : Takeoff

Route In Use : None

## Component

Aircraft Component : Rudder Control System

Aircraft Reference : X

Problem : Improperly Operated

## Person

Reference : 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 : 69

Experience.Flight Crew.Last 90 Days : 22

Experience.Flight Crew.Type : 69

ASRS Report Number.Accession Number : 1600861

Human Factors : Training / Qualification

Human Factors : Situational Awareness

## 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.Flight Crew : Regained Aircraft Control

## Assessments

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

## Narrative: 1

I landed on the Runway XXL to do touch and go. I was stabilized and on the centerline. After landing, I turned off the carburetor heat, put flaps up and full throttle in order to do touch and go. When I rotated at 50 knots, the airplane didn't lift off and I lost directional control. I couldn't maintain centerline so I pulled throttle out and pushed on the brakes. I ended up skidding to the left side of runway on the grass, hitting the runway lights. The runway was wet so I think I could have hydroplaned. I could have done more rudder control. I could have stopped and go.

## Synopsis

C152 student pilot reported a loss of control and runway excursion during landing on a wet runway.