ASRS Database Report Set

Inflight Weather Encounters

Report Set Description.....A sampling of reports from both air carrier flight crews and GA pilots referencing encounters with severe or unforecast weather.

Update Number.....36

Date of Update.....January 10, 2024

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

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

National Aeronautics and
Space Administration

Ames Research Center
Moffett Field, CA 94035-1000

TH: 262-7

MEMORANDUM FOR: Recipients of Aviation Safety Reporting System Data

SUBJECT: Data Derived from ASRS Reports

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

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

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

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

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

B Hooey

Becky L. Hooey, Director
NASA Aviation Safety Reporting System

CAVEAT REGARDING USE OF ASRS DATA

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

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

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

Report Synopses

ACN: 2037498 *(1 of 50)*

Synopsis

Captain reported a loss of situational awareness when maneuvering at the minimum vectoring altitude while trying to locate GJT airport at night in mountainous terrain. The Captain expressed concern that this approach may not be safe.

ACN: 2034009 *(2 of 50)*

Synopsis

CRJ900 Captain reported encountering severe turbulence despite rerouting to avoid storms that were seen in the distance. As there was nothing showing up on radar, the reporter and Center did not know which direction would lead to flying in better weather. The severe turbulence eventually subsided and there were no injuries noted.

ACN: 2033866 *(3 of 50)*

Synopsis

Air carrier Captain reported they were assigned a heading for weather avoidance and an altitude to maintain. After reaching the initial assigned altitude, ATC issued them a Low Altitude Alert and a climb.

ACN: 2032995 *(4 of 50)*

Synopsis

C172 pilot reported taxiway excursion onto grass area while turning on a wet taxiway. Pilot regained control and returned to paved surface. Post flight inspection revealed damage to propeller.

ACN: 2032898 *(5 of 50)*

Synopsis

B737-800 First Officer reported the Captain overbanked the aircraft during arrival while maneuvering away from an area of severe weather. Captain corrected overbank and flight continued on approach to landing.

ACN: 2032837 *(6 of 50)*

Synopsis

Two air carrier pilots on break reported noticing the effects of possible wake turbulence on their trans-Pacific flight.

ACN: 2032768 *(7 of 50)*

Synopsis

Government UAS pilot reported conducting operations in deteriorating conditions. They chose to land after they were unable to comply with VFR cloud clearance requirements.

ACN: 2032767 *(8 of 50)*

Synopsis

Air taxi First Officer reported an unstabilized approach resulting in a CFTT event in inclement weather with close to zero reported visibility. The First Officer repeatedly asked the Captain to execute a go-around, yet the Captain ignored the requests. Post landing, Captain admitted a go-around would have been the best decision.

ACN: 2032417 *(9 of 50)*

Synopsis

Air Carrier flight crew reported ATC told them they took a similar sounding call sign's descent clearance and descended below the minimum altitude for terrain obstruction.

ACN: 2031710 *(10 of 50)*

Synopsis

B787 Captain and relief pilot reported a 25-30 knot overspeed and altitude loss of 700 feet from severe mountain wave in cruise flight.

ACN: 2031581 *(11 of 50)*

Synopsis

B-787 First Officer reported severe mountain wave that resulted in an over-speed and a loss of 700 feet in altitude during cruise at FL 410.

ACN: 2028890 *(12 of 50)*

Synopsis

Tower Controllers and a flight school instructor reported the instructor initiated a go around from short final due to another flight school aircraft being on the runway. The Controllers reported a mix up in communications, their inability to see the runway involved, and no ground radar contributed to their lack of awareness of an aircraft on the runway.

ACN: 2028563 *(13 of 50)*

Synopsis

Cessna 182 pilot reported becoming distracted during single pilot operation in IMC on approach and entering an unusual attitude. The pilot took immediate actions to recover the aircraft and elected to do an approach into a nearby airport.

ACN: 2028114 *(14 of 50)*

Synopsis

Epic E1000 pilot reported ATC did not approve their weather deviation request which resulted in them encountering Wind Shear and an uncontrolled 3000 ft. climb. Pilot regained control of aircraft and returned to assigned altitude.

ACN: 2027515 *(15 of 50)*

Synopsis

Pilot reported a runway excursion during gusty wind conditions while receiving training in a tail-wheel aircraft. The instructor took over the controls as the aircraft rolled into a grass area undamaged, then taxied to the hangar.

ACN: 2027345 *(16 of 50)*

Synopsis

Air carrier flight crew reported during climb out in turbulence they were below a crossing restriction on the SID and received a Low Altitude Alert from ATC.

ACN: 2027140 *(17 of 50)*

Synopsis

B737 Captain reported an engine vibration and EGT exceedance during climb. The crew returned to the departure airport and landed safely.

ACN: 2027095 *(18 of 50)*

Synopsis

ACRJ-700 flight crew reported an APU door malfunction, and subsequent Anti-Ice Duct warning, which precluded the ability to operate in icing conditions.

ACN: 2027067 *(19 of 50)*

Synopsis

Air carrier flight crew reported a radio altimeter "call-out" that contradicted the radio altitude displayed in the cockpit. The flight crew suspected possible 5G radio interference and continued the CAT III approach to a normal landing.

ACN: 2026967 *(20 of 50)*

Synopsis

Pilot reported a propeller strike in his tail-wheel aircraft after a sudden gust of wind lifted the tail off the ground causing contact with surface. No injuries or damage to plane except for the propeller.

ACN: 2026333 *(21 of 50)*

Synopsis

B767 Captain reported the flying pilot on IOE landed the aircraft but the aircraft began to bounce, with the nose hitting the runway and rising several times. During a postflight debriefing it was determined the primary cause of the bounce was due to the flying pilot operating the speed brake faster than normal.

ACN: 2026087 *(22 of 50)*

Synopsis

Cessna 172 student pilot reported a hard landing at a non-towered airport during a solo training flight. The hard landing resulting in aircraft damage and nose gear collapse on the runway.

ACN: 2025353 *(23 of 50)*

Synopsis

Air carrier flight crew reported unreliable airspeed indicator during descent in severe weather. Diverted to alternate airport in VMC and landed uneventfully.

ACN: 2025095 *(24 of 50)*

Synopsis

Hawker 800 pilot reported receiving an altitude alert from ATC during the approach although the flight crew reportedly was crossing the fix at the correct altitude.

ACN: 2024525 *(25 of 50)*

Synopsis

C172 Flight Instructor reported a tail strike occurred due to a loss of lift during the landing flare, most likely due to the wind conditions. The Flight Instructor took control of the aircraft from the student and after getting all three wheels on the ground, inspected the aircraft and notified Tower.

ACN: 2023954 *(26 of 50)*

Synopsis

EMB-175 flight crew reported a failure of the air data system affecting multiple aircraft systems during the climb in communication with ATC. The crew continued toward the destination but diverted to an alternate due to icing conditions at the destination, and landed safely.

ACN: 2023658 *(27 of 50)*

Synopsis

Air carrier Captain reported a sharp acrid odor during cruise. After conferring with Dispatch the odor was determined to be caused by a volcanic ash event which was remedied by climbing to a higher altitude..

ACN: 2023353 *(28 of 50)*

Synopsis

PA-44 Flight Instructor reported student entered an unusual attitude and lost aircraft control after entering IMC conditions during a night VFR cross country flight. Instructor regained control after descending 1500 feet and continued on to destination.

ACN: 2023141 *(29 of 50)*

Synopsis

PC12 pilot reported a loss of aircraft control during climb after entering cumulonimbus clouds and IMC conditions prior to receiving IFR clearance. Pilot encountered extreme turbulence and moderate icing conditions after obtaining IFR clearance and continued to destination after exiting the weather.

ACN: 2022985 *(30 of 50)*

Synopsis

Air carrier flight crew reported approximately 10 NM from the fix WYLER in the vicinity of PIT, the aircraft began to experience navigational errors. The pilots received RNP, ANP, LOC and GPS flags.

ACN: 2022725 *(31 of 50)*

Synopsis

CRJ flight crew reported failure of cockpit window in cruise flight. Flight diverted and landed uneventfully.

ACN: 2022686 *(32 of 50)*

Synopsis

Captain reported a near miss with a general aviation aircraft while under air traffic control in IMC conditions, descending on a published arrival procedure. The Captain responded to the TCAS RA, reported the TCAS event to ATC and continued the descent to a landing.

ACN: 2022585 *(33 of 50)*

Synopsis

PA-32 instructor with student reported a runway excursion after landing at a non-towered airport requiring the instructor to take over the controls to bring the aircraft back to the

runway pavement. Instructor stated the student was new to the PA-32 which along with variable winds contributed to the momentary runway excursion.

ACN: 2022550 *(34 of 50)*

Synopsis

GA pilot reported a loss of directional control during landing due to a gust of wind which resulted in a runway excursion and minor damage to the aircraft.

ACN: 2021782 *(35 of 50)*

Synopsis

Air carrier flight crew reported momentary loss of aircraft control during landing caused by wind gusts. The aircraft moved to the left with the left main gear touching the grass off the runway before the Captain was able correct and bring the aircraft back to centerline.

ACN: 2021625 *(36 of 50)*

Synopsis

Cessna- 680A flight crew reported severe turbulence, loss of airspeed, and wind shear on a training flight while executing a go-around. The Captain took over the aircraft from the student after the go-around and then landed safely.

ACN: 2021609 *(37 of 50)*

Synopsis

Widebody Captain reported encountering wake turbulence on short final at SDF. Reporter also stated they landed with a 14 kt tailwind.

ACN: 2021352 *(38 of 50)*

Synopsis

A319 Captain reported that a known deficiency in older radar displays caused the flight crew to enter convective activity leading to a loss of aircraft control during approach. Crew recovered aircraft control and continued on the approach.

ACN: 2020873 *(39 of 50)*

Synopsis

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

ACN: 2020871 *(40 of 50)*

Synopsis

Agriculture pilot reported a near miss with power lines that were obscured by smoke and haze while performing aerial application of fertilizer. The pilot mis-judged the distance to the power lines, decided to fly under the power lines and was able to avoid hitting the power lines during the maneuver.

ACN: 2020190 *(41 of 50)*

Synopsis

Cessna 140 pilot reported a runway excursion during landing. Reportedly, the flying pilot was high and fast and bounced upon touchdown then they were blown off to the left by unexpected right crosswinds.

ACN: 2019937 *(42 of 50)*

Synopsis

Air carrier Captain reported momentary loss of aircraft control after encountering turbulence at FL380 while under control of ZSHA Control Center. Reportedly, the aircraft rapidly began to climb, the crew received an Altitude Alert before disconnecting the autopilot to manually regain control.

ACN: 2019932 *(43 of 50)*

Synopsis

Air carrier flight crew reported a windshear encounter during approach to PBI airport resulting in a flap overspeed and momentary loss of aircraft control.

ACN: 2019869 *(44 of 50)*

Synopsis

EMB145 Captain reported loss of aircraft control from a turbulence encounter during cruise at FL330. Crew recovered aircraft control and continued to destination with no injuries or damage reported.

ACN: 2019384 *(45 of 50)*

Synopsis

EMB-145 Captain reported a reroute and increased headwinds caused fuel reserves to drop to minimum. The reporter stated fuel gauge indications fluctuated indicating below minimums at times and FMS was not working properly. Flight crew received priority handling and landed at destination airport.

ACN: 2018769 *(46 of 50)*

Synopsis

GA student pilot reported damage to tail of aircraft as a result of a hard landing or go-around after student flared early during variable wind conditions.

ACN: 2018466 *(47 of 50)*

Synopsis

Luscombe pilot reported a wind shift on takeoff which caused the aircraft to veer off the runway, striking a runway sign once airborne. The pilot regained aircraft control, flew a pattern, then landed safely.

ACN: 2018142 *(48 of 50)*

Synopsis

B737-800 flight crew reported a tail strike occurred during takeoff in gusty wind conditions. Flight crew diverted and post flight inspection found minor damage.

ACN: 2018131 *(49 of 50)*

Synopsis

Air carrier Captain reported misunderstanding of a CPDLC course reroute received in cruise and manually loading the clearance instead of using the load function resulted in a course deviation.

ACN: 2017620 *(50 of 50)*

Synopsis

A321 Captain reported abnormal bleed air pressure on left engine during climb. Captain returned to departure airport due to icing restrictions and made an overweight landing.

Report Narratives

ACN: 2037498 *(1 of 50)*

Time / Day

Date : 202309
Local Time Of Day : 1801-2400

Place

Locale Reference.ATC Facility : D01.TRACON
State Reference : CO
Altitude.MSL.Single Value : 10500

Environment

Flight Conditions : VMC
Light : Night

Aircraft

Reference : X
ATC / Advisory.TRACON : D01
Aircraft Operator : Air Carrier
Make Model Name : Medium Large Transport
Crew Size.Number Of Crew : 2
Operating Under FAR Part : Part 121
Flight Plan : IFR
Mission : Passenger
Flight Phase : Initial Approach
Route In Use : Visual Approach

Person

Location Of Person.Aircraft : X
Location In Aircraft : Flight Deck
Reporter Organization : Air Carrier
Function.Flight Crew : Pilot Flying
Function.Flight Crew : Captain
Qualification.Flight Crew : Instrument
Qualification.Flight Crew : Multiengine
Qualification.Flight Crew : Air Transport Pilot (ATP)
Experience.Flight Crew.Total : 12500
Experience.Flight Crew.Last 90 Days : 143
Experience.Flight Crew.Type : 1967
ASRS Report Number.Accession Number : 2037498
Human Factors : Communication Breakdown
Human Factors : Situational Awareness
Human Factors : Training / Qualification
Human Factors : Confusion
Communication Breakdown.Party1 : Flight Crew
Communication Breakdown.Party2 : ATC

Events

Anomaly.ATC Issue : All Types
Anomaly.Deviation / Discrepancy - Procedural : Published Material / Policy
Anomaly.Inflight Event / Encounter : Weather / Turbulence

Anomaly.Inflight Event / Encounter : CFTT / CFIT
Detector.Person : Flight Crew
When Detected : In-flight
Result.Flight Crew : Returned To Clearance
Result.Air Traffic Control : Issued Advisory / Alert

Assessments

Contributing Factors / Situations : Airport
Contributing Factors / Situations : Chart Or Publication
Contributing Factors / Situations : Human Factors
Contributing Factors / Situations : Procedure
Contributing Factors / Situations : Weather
Primary Problem : Procedure

Narrative: 1

As we were nearing GJT airport, we requested the RNAV (GPS) Rwy 29 Approach. We were told by the ATC Controller that he would be unable to clear us for any approach to RWY 29 from our direction because their minimum vectoring altitudes were well above the charted approach altitudes. We queried him, because I did not believe that we would be unable to shoot either of the published approaches to 29, into an airport surrounded by high terrain at night. The Controller descended us incrementally as he could, but once we reached 9500 ft MSL, he stated that until we reported the runway in sight and cleared us for the visual, he was unable to clear us to a lower altitude due to terrain. As a result, we flew past the extended centerline of the runway and finally saw the airport as we passed approx. 5000 ft above the field elevation. I did not recognize the airport at first, because from our altitude it looked tiny, and I was looking farther to the north for the visual picture I expect when looking for an airport. Once we passed to the west of the airport and reported GJT in sight, the controller was able to give us vectors and a lower altitude. We were given a 180 degree turn for the downwind leg and then cleared for the visual approach, with turns onto base and final legs at our discretion. Given the limited moonlight, we could not see any of the terrain to the south or west of the field, only the outline of the mountain peaks against the skyline. I have approx. 12,500 hours of flight time; 10,000 with the airline and was extremely uncomfortable throughout this approach. Although I believe I was flying conservatively, I had no actual idea where the terrain was and just tried to fly the closest-in approach I could, while still getting configured in time to be stabilized for landing. To add to my mental workload, I was conducting IOE with a new-hire. I was mentally prepared to conduct the terrain escape maneuver if needed. One of the only things that gave me any comfort in conducting the visual approach is my experience level, conservative energy management and belief that ATC was watching us on radar and would have alerted us if they had gotten a "low altitude" alert. I believe this operation is inherently unsafe: descending into a valley, surrounded by high terrain and just guessing what altitudes were appropriate while on a visual approach. I half considered diverting, thinking to myself, "How is it possible that this is legal?" The airline should commission Jeppesen to create a custom RNAV STAR linked to an Approach for Rwy 29 that meets the criteria required by ATC.

Synopsis

Captain reported a loss of situational awareness when maneuvering at the minimum vectoring altitude while trying to locate GJT airport at night in mountainous terrain. The Captain expressed concern that this approach may not be safe.

ACN: 2034009 *(2 of 50)*

Time / Day

Date : 202309
Local Time Of Day : 1801-2400

Place

Locale Reference.ATC Facility : ZZZ.ARTCC
State Reference : US
Altitude.MSL.Single Value : 34000

Environment

Flight Conditions : IMC

Aircraft

Reference : X
ATC / Advisory.Center : ZZZ
Aircraft Operator : Air Carrier
Make Model Name : Regional Jet 900 (CRJ900)
Crew Size.Number Of Crew : 2
Operating Under FAR Part : Part 121
Flight Plan : IFR
Mission : Passenger
Flight Phase : Cruise
Airspace.Class A : ZZZ

Person

Location Of Person.Aircraft : X
Location In Aircraft : Flight Deck
Reporter Organization : Air Carrier
Function.Flight Crew : Captain
Function.Flight Crew : Pilot Not Flying
Qualification.Flight Crew : Air Transport Pilot (ATP)
Qualification.Flight Crew : Instrument
Qualification.Flight Crew : Multiengine
ASRS Report Number.Accession Number : 2034009
Human Factors : Troubleshooting
Human Factors : Time Pressure
Human Factors : Confusion

Events

Anomaly.Deviation - Altitude : Excursion From Assigned Altitude
Anomaly.Deviation / Discrepancy - Procedural : Clearance
Anomaly.Inflight Event / Encounter : Weather / Turbulence
Anomaly.Inflight Event / Encounter : Loss Of Aircraft Control
Detector.Person : Flight Crew
When Detected : In-flight
Result.Flight Crew : Requested ATC Assistance / Clarification
Result.Flight Crew : Overcame Equipment Problem
Result.Aircraft : Equipment Problem Dissipated

Assessments

Contributing Factors / Situations : Weather
Primary Problem : Weather

Narrative: 1

While level at FL340 we could see in the distance about 50 miles away several thunderstorms starting to form a solid line. Our radar confirmed what we were seeing and I decided that going through that area was not an option. We asked for a 90-degree turn to the right or a western heading. After getting our reroute to the west, parallel to the storms we encountered a layer of hazy skies and some moderate chop. Our radar was not hitting any precipitation and our track looked decent. To be safe we started slowing the aircraft for our turbulence procedures. I already had the FAs (Flight Attendant) sitting down and everything seemed fine. The moderate chop suddenly turned into to light turbulence and shortly after severe turbulence. The plane climbed up and down about 1000 ft. and I saw our VSI was up and down about 1200 ft. I immediately told Center and requested a turn back to the north but without anything showing on the radar, Center or ourselves really had no idea which direction would get us clear of the turbulent weather. Eventually the severe turbulence returned back to moderate chop, I called the FAs, they said no injuries and everyone was OK. At that point I made an announcement and we continued to ZZZ.

Synopsis

CRJ900 Captain reported encountering severe turbulence despite rerouting to avoid storms that were seen in the distance. As there was nothing showing up on radar, the reporter and Center did not know which direction would lead to flying in better weather. The severe turbulence eventually subsided and there were no injuries noted.

ACN: 2033866 *(3 of 50)*

Time / Day

Date : 202309
Local Time Of Day : 1201-1800

Place

Locale Reference.ATC Facility : ZZZ.TRACON
State Reference : US
Altitude.MSL.Single Value : 10000

Environment

Flight Conditions : IMC
Weather Elements / Visibility : Thunderstorm

Aircraft

Reference : X
ATC / Advisory.TRACON : ZZZ
Aircraft Operator : Air Carrier
Make Model Name : Commercial Fixed Wing
Crew Size.Number Of Crew : 2
Operating Under FAR Part : Part 121
Flight Plan : IFR
Mission : Passenger
Flight Phase : Climb
Airspace.Class E : ZZZ

Person

Location Of Person.Aircraft : X
Location In Aircraft : Flight Deck
Reporter Organization : Air Carrier
Function.Flight Crew : Pilot Flying
Function.Flight Crew : Captain
Qualification.Flight Crew : Instrument
Qualification.Flight Crew : Multiengine
Qualification.Flight Crew : Air Transport Pilot (ATP)
Experience.Flight Crew.Last 90 Days : 171
Experience.Flight Crew.Type : 1212
ASRS Report Number.Accession Number : 2033866
Human Factors : Communication Breakdown
Human Factors : Situational Awareness
Human Factors : Time Pressure
Human Factors : Workload
Human Factors : Human-Machine Interface
Communication Breakdown.Party1 : Flight Crew
Communication Breakdown.Party2 : ATC

Events

Anomaly.ATC Issue : All Types
Anomaly.Inflight Event / Encounter : Weather / Turbulence
Anomaly.Inflight Event / Encounter : CFTT / CFIT

Detector.Person : Air Traffic Control
Result.Flight Crew : FLC complied w / Automation / Advisory
Result.Flight Crew : Requested ATC Assistance / Clarification
Result.Air Traffic Control : Issued New Clearance
Result.Air Traffic Control : Issued Advisory / Alert

Assessments

Contributing Factors / Situations : Airspace Structure
Contributing Factors / Situations : Chart Or Publication
Contributing Factors / Situations : Environment - Non Weather Related
Contributing Factors / Situations : Human Factors
Contributing Factors / Situations : Procedure
Primary Problem : Procedure

Narrative: 1

Operating to ZZZ, Runway XX. Tower amended the take-off clearance from FL230 to heading 280 at 10,000 ft. After take-off, the FO (First Officer) checked in and ATC adjusted the heading to 260 degrees for weather avoidance. We climbed to and leveled off at 10,000 ft. Captain was the PF (Pilot Flying) and it sounded busy so I turned the AP (Autopilot) on at 7,000 ft. to be sure that I caught all ATC transmissions. At 10,000 ft. ATC radio traffic got extremely busy as we were waiting for a clearance to a higher altitude. Then ATC gave us a Terrain Altitude alert, and a climbing turn with a heading. The FO tried to acknowledge and the Captain immediately turned and climbed. The aircraft indicated a single call-out of 2500 ft. once and as the aircraft was climbing/turning the lowest recorded Radar Altimeter was 2120 ft for 5 seconds. No aircraft damage, no terrain contact and no passengers were injured during the maneuvers. ATC reiterated the heading and climb but the ATC frequency was flooded with requests. We managed to acknowledge and then we were handed off to en-route ATC, and requested a further climb. Captain requested the ATC phone number after a few minutes. The Captain notified dispatch during the flight and pilot manager after landing. And then called and spoke with the Approach Control Supervisor and reviewed the situation. I gave the Supervisor the time to mark the tapes. He took my information and indicated that they will be calling me as they begin their investigation.

Synopsis

Air carrier Captain reported they were assigned a heading for weather avoidance and an altitude to maintain. After reaching the initial assigned altitude, ATC issued them a Low Altitude Alert and a climb.

ACN: 2032995 *(4 of 50)*

Time / Day

Date : 202309
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 : Rain
Weather Elements / Visibility.Visibility : 10
Light : Daylight
Ceiling.Single Value : 4500

Aircraft

Reference : X
ATC / Advisory.Ground : 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 : Personal
Flight Phase : Taxi
Route In Use : None

Person

Location Of Person.Aircraft : X
Location In Aircraft : Flight Deck
Reporter Organization : Personal
Function.Flight Crew : Single Pilot
Function.Flight Crew : Pilot Flying
Qualification.Flight Crew : Commercial
Qualification.Flight Crew : Instrument
Qualification.Flight Crew : Multiengine
Qualification.Flight Crew : Flight Instructor
Experience.Flight Crew.Total : 1062
Experience.Flight Crew.Last 90 Days : 271
Experience.Flight Crew.Type : 874
ASRS Report Number.Accession Number : 2032995
Human Factors : Time Pressure
Human Factors : Situational Awareness

Events

Anomaly.Deviation / Discrepancy - Procedural : Published Material / Policy
Anomaly.Deviation / Discrepancy - Procedural : Clearance
Anomaly.Ground Excursion : Taxiway

Anomaly.Ground Event / Encounter : Weather / Turbulence
Anomaly.Ground Event / Encounter : Loss Of Aircraft Control
Anomaly.Ground Event / Encounter : Ground Strike - Aircraft
Anomaly.Inflight Event / Encounter : Weather / Turbulence
Detector.Person : Flight Crew
When Detected : Taxi
Result.General : Maintenance Action
Result.General : Flight Cancelled / Delayed
Result.Flight Crew : Regained Aircraft Control
Result.Aircraft : Aircraft Damaged

Assessments

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

Narrative: 1

On Day 0, I rented the aircraft aforementioned from flight school for a VFR flight in the vicinity between XB30 to XE00. The runway and taxiway conditions were wet according to the XA:21 meteorological report, in which the airport reported heavy rain and thunderstorms, ending at XA:47. Preflight and runup checks were completed as normal and all systems showed safe parameters. Coming to a full stop landing after performing 11 touch and go practice approaches, ZZZ Ground Control instructed to taxi back to spot X ramp via: taxiway 1, 2, Runway XX, and taxiway 3 to ramp parking. When turning right into taxiway 3 from Runway XX, I missed the corner entrance of taxiway 3 and overrun the grass area further ahead of the same taxiway, as a result of aircraft speed and wet taxiway conditions that affected traction and consequently rate of turn. I instantly applied idle power and right brake to increase the rate of turn, but the aircraft momentum allowed it to come back at the taxiway pavement. Engine and rudder controls were still operating normally, therefore I proceeded to park the aircraft at the ramp area. After grounding the aircraft and notifying the flight school, significant damage was visible to the propeller blade during an inspection with the flight school's mechanic.

Synopsis

C172 pilot reported taxiway excursion onto grass area while turning on a wet taxiway. Pilot regained control and returned to paved surface. Post flight inspection revealed damage to propeller.

ACN: 2032898 *(5 of 50)*

Time / Day

Date : 202308
Local Time Of Day : 1201-1800

Place

Locale Reference.Airport : ZZZ.Airport
State Reference : US
Altitude.MSL.Single Value : 8000

Aircraft

Reference : X
ATC / Advisory.TRACON : ZZZ
Aircraft Operator : Air Carrier
Make Model Name : B737-800
Crew Size.Number Of Crew : 2
Operating Under FAR Part : Part 121
Flight Plan : IFR
Mission : Passenger
Nav In Use.Localizer/Glideslope/ILS : ILS XX
Flight Phase : Initial Approach
Airspace.Class B : ZZZ

Person

Location Of Person.Aircraft : X
Location In Aircraft : Flight Deck
Reporter Organization : Air Carrier
Function.Flight Crew : First Officer
Function.Flight Crew : Pilot Not Flying
Qualification.Flight Crew : Air Transport Pilot (ATP)
Qualification.Flight Crew : Instrument
Qualification.Flight Crew : Multiengine
ASRS Report Number.Accession Number : 2032898
Human Factors : Workload
Human Factors : Situational Awareness

Events

Anomaly.ATC Issue : All Types
Anomaly.Deviation - Track / Heading : All Types
Anomaly.Deviation / Discrepancy - Procedural : Published Material / Policy
Anomaly.Deviation / Discrepancy - Procedural : Clearance
Anomaly.Inflight Event / Encounter : Weather / Turbulence
Anomaly.Inflight Event / Encounter : Loss Of Aircraft Control
Detector.Automation : Aircraft Other Automation
When Detected : In-flight
Result.Flight Crew : Regained Aircraft Control
Result.Flight Crew : Became Reoriented

Assessments

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

Narrative: 1

I was the PM (Pilot Monitoring) on a flight XXXX ZZZ1- ZZZ. We were descending through approximately 8000 ft prepared for the ILS RWY XX in ZZZ. The ATC changed our runway and approach for RNAV XYR. We received a vector to the new approach and I loaded the new RWY and approach into the FMS. I then realized that the vector takes us through a large thunderstorm cell that was located between the final courses of RWY XX and XYR. We had the discussion about it with the CA (PF) and I expressed my concern to the ATC. I told the ATC that that the vector they gave us takes us right into the cell, that we are not able to continue on that heading and need a new vector around it. The ATC was not cooperative, and even after suggesting a heading that we knew that would work for us, they kept refusing it and gave us vectors back into the severe weather. At this point we had reached the edge of the cell with heavy precipitation and moderate turbulence. We [requested priority] as we needed to turn away from the weather. The CA (PF) disconnected the AP and took a right turn taking us out of the cell. The CA (PF) over banked the aircraft which he immediately corrected for after the over-bank warning. Upon several back and forth communication with the ATC we got cleared back to the ILS RWY XX. We requested extra time to prepare for the approach. The approach to ILS XX and landing commenced without issues. We should have had a better situational awareness about the weather and not accepted the runway change that late on the arrival in these circumstances at first place. I did not realize the severity of the weather and its location until we had already accepted the RWY change. It was surprising to us that the ATC attempted to vector us straight into the bad weather and that they were not helpful finding a way around it. It caught us off guard because ZZZ ATC is usually experienced and extremely cooperative helping to cope with weather in the area. We also speculated that the ZZZ ATCs radars could have not portrayed the same info we had. We should always maintain a good situational awareness and never rely on ATC doing a right thing.

Synopsis

B737-800 First Officer reported the Captain overbanked the aircraft during arrival while maneuvering away from an area of severe weather. Captain corrected overbank and flight continued on approach to landing.

ACN: 2032837 *(6 of 50)*

Time / Day

Date : 202309

Place

Locale Reference.ATC Facility : ZOA.ARTCC
State Reference : CA

Aircraft : 1

Reference : X
ATC / Advisory.Center : ZOA
Aircraft Operator : Air Carrier
Make Model Name : B777 Undifferentiated or Other Model
Crew Size.Number Of Crew : 4
Operating Under FAR Part : Part 121
Flight Plan : IFR
Mission : Passenger
Flight Phase : Cruise
Airspace.Class A : ZOA

Aircraft : 2

Reference : Y
ATC / Advisory.Center : ZOA
Make Model Name : A380
Flight Plan : IFR
Flight Phase : Cruise
Airspace.Class A : ZOA

Person : 1

Location Of Person.Aircraft : X
Reporter Organization : Air Carrier
Function.Flight Crew : Pilot Not Flying
Function.Flight Crew : First Officer
Qualification.Flight Crew : Multiengine
Qualification.Flight Crew : Air Transport Pilot (ATP)
Qualification.Flight Crew : Instrument
Experience.Flight Crew.Last 90 Days : 191
Experience.Flight Crew.Type : 349
ASRS Report Number.Accession Number : 2032837

Person : 2

Location Of Person.Aircraft : X
Location In Aircraft : Flight Deck
Reporter Organization : Air Carrier
Function.Flight Crew : Pilot Not Flying
Function.Flight Crew : Captain
Qualification.Flight Crew : Multiengine
Qualification.Flight Crew : Air Transport Pilot (ATP)
Qualification.Flight Crew : Instrument
Experience.Flight Crew.Last 90 Days : 251

Experience.Flight Crew.Type : 984
ASRS Report Number.Accession Number : 2032836

Events

Anomaly.Inflight Event / Encounter : Weather / Turbulence
Anomaly.Inflight Event / Encounter : Wake Vortex Encounter
Detector.Person : Flight Crew
When Detected : In-flight
Result.General : None Reported / Taken

Assessments

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

Narrative: 1

We were flying over the Pacific Ocean where we were on a filed track that everyone else seemed to be on. We had noticed a few other aircraft in front of us at differing altitudes through at least the first half of the flight. While I was upfront for the first half, we had to adjust our SLOP (Strategic Lateral Offset Procedure) a few times to account for the winds and what we can see the other aircraft doing utilizing TCAS and their respective contrails. Prior to the event, we had swapped in the [Relief Pilot] so that the Captain (CA) and I can take our break prior to landing. At the time of the swap, the weather outside was VMC and we were clear of any clouds nearby. We were cruising at FL350, having stepped climbed according to the VNAV CRZ page, at the filed cost index ECON speeds. However, there was a bend in the jet stream right around that time to swap. I had just laid down and strapped myself in when we hit the first bump. I did hear a PA be made within a second of it which I presume is the turbulence PA for the Flight Attendants (FAs). I am not sure which one since it wasn't broadcasted into the bunk room so it was muffled. It was clearly in the moderate category maybe a bit higher at certain points of the event based off of my motion laying down under the seat belt in a dark bunk. The motion of the turbulence did feel like wake turbulence to me and therefore, out of curiosity and since I was on break, I utilized the WIFI to see what was up in front of us. On the app, I saw that there was an aircraft in front of us and only 1,000 feet above our current altitude. I heard the Captain (CA) pick the phone up in the seating area and I told him about what I had found to suggest that we could've possibly had a wake turbulence encounter and to maybe relay to the [Relief Pilot] in the flight deck for increased situational awareness.

Narrative: 2

Just after the half way point in our flight, and shortly after the relief pilots took over, during my rest, the aircraft experienced abrupt moderate or greater turbulence that lasted about 30 to 40 seconds. I had just gotten into the overhead crew rest area and was able to buckle into one of the Jump seats. After the ride smoothed out, I went into the cabin to check on the Flight Attendants and Passengers. The Flight Attendants were shaken, but there were no injuries. I called the flight deck and talked to the relief pilots, who had taken the correct action and had requested a lower altitude to get a smoother ride. The Relief Pilots had contacted Dispatch to report the turbulence and while discussing it they determined that it was possibly wake turbulence from an aircraft that was higher and ahead of us. At the time we were in an area of no forecasted or reported turbulence, we were, however, following SOP and (Strategic Lateral Offset Procedure) SLOP 1 mile right of course. The area we were crossing had multiple fragmented jet streams depicted along our route at different altitudes. During the event, the auto pilot remained engaged, and the

aircraft maintained altitude. considering the circumstances, the Relief Pilots did an excellent job and the flight continued without further issue.

Synopsis

Two air carrier pilots on break reported noticing the effects of possible wake turbulence on their trans-Pacific flight.

ACN: 2032768 *(7 of 50)*

Time / Day

Date : 202309
Local Time Of Day : 0601-1200

Place

Locale Reference.Airport : ZZZ.Airport
State Reference : US
Relative Position.Angle.Radial : 270
Relative Position.Distance.Nautical Miles : 1.0
Altitude.AGL.Single Value : 1500

Environment

Flight Conditions : VMC
Weather Elements / Visibility.Visibility : 6
Light : Daylight

Aircraft

Reference : X
Aircraft Operator : Government
Make Model Name : Large UAS, Fixed Wing
Crew Size.Number Of Crew : 4
Operating Under FAR Part : Part 91
Flight Plan : VFR
Mission : Training
Flight Phase : Descent
Route In Use : Visual Approach
Airspace.Class D : ZZZ
Operating Under Waivers / Exemptions / Authorizations (UAS) : Y
Weight Category (UAS) : Large
Configuration (UAS) : Fixed Wing
Flight Operated As (UAS) : BVLOS
Number of UAS Being Controlled (UAS).Number of UAS : 1

Person

Location Of Person : Indoor / Ground Control Station (UAS)
Reporter Organization : Government
Function.Flight Crew : Instructor
Qualification.Flight Crew : Flight Instructor
Qualification.Flight Crew : Instrument
Qualification.Flight Crew : Multiengine
Qualification.Flight Crew : Commercial
Experience.Flight Crew.Total : 2500
Experience.Flight Crew.Last 90 Days : 30
Experience.Flight Crew.Type : 700
ASRS Report Number.Accession Number : 2032768
Human Factors : Situational Awareness
Analyst Callback : Attempted

Events

Anomaly.Deviation / Discrepancy - Procedural : Published Material / Policy
Anomaly.Deviation / Discrepancy - 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 : Landed As Precaution

Assessments

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

Narrative: 1

Conducting training flight as instructor pilot in an unmanned Aircraft X. Tower weather per ATIS was reported as Few clouds 1100 ft. Prior to that, skies had been reported as clear. Took off planning on VFR pattern work and found that the clouds had thickened and pushed in. Decision was made and communicated to tower that we would make a full stop landing. VFR cloud clearances were not maintained at times during the pattern. Full stop landing was successfully completed after which Tower stated that clouds were now Broken at 1200 ft. AGL.

Synopsis

Government UAS pilot reported conducting operations in deteriorating conditions. They chose to land after they were unable to comply with VFR cloud clearance requirements.

ACN: 2032767 *(8 of 50)*

Time / Day

Date : 202308
Local Time Of Day : 1801-2400

Place

Locale Reference.Airport : ZZZ.Airport
State Reference : US
Altitude.AGL.Single Value : 300

Environment

Weather Elements / Visibility : Fog
Weather Elements / Visibility : Rain
Weather Elements / Visibility.Visibility : 0
Light : Daylight
Ceiling.Single Value : 300

Aircraft

Reference : X
ATC / Advisory.Tower : ZZZ
Aircraft Operator : Air Taxi
Make Model Name : Light Transport
Crew Size.Number Of Crew : 2
Operating Under FAR Part : Part 135
Flight Plan : IFR
Mission : Passenger
Flight Phase : Final Approach
Route In Use : Direct
Airspace.Class D : ZZZ

Person

Location Of Person.Aircraft : X
Location In Aircraft : Flight Deck
Reporter Organization : Air Taxi
Function.Flight Crew : First Officer
Function.Flight Crew : Pilot Not Flying
Qualification.Flight Crew : Multiengine
Qualification.Flight Crew : Commercial
Experience.Flight Crew.Total : 1523
Experience.Flight Crew.Last 90 Days : 368
Experience.Flight Crew.Type : 678
ASRS Report Number.Accession Number : 2032767
Human Factors : Situational Awareness
Human Factors : Communication Breakdown
Communication Breakdown.Party1 : Flight Crew
Communication Breakdown.Party2 : Flight Crew

Events

Anomaly.Deviation - Altitude : Excursion From Assigned Altitude
Anomaly.Deviation - Altitude : Overshoot

Anomaly.Deviation / Discrepancy - Procedural : Published Material / Policy
Anomaly.Deviation / Discrepancy - Procedural : Clearance
Anomaly.Inflight Event / Encounter : Weather / Turbulence
Anomaly.Inflight Event / Encounter : CFTT / CFIT
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
Contributing Factors / Situations : Weather
Primary Problem : Human Factors

Narrative: 1

While on the RNAV approach to ZZZ Airport visibility deteriorated rapidly as the descent into the final approach segment of the RNAV XX. Heavy rain began prior to the arrival of the minimum approach altitude and continued until nearly reaching the field. Visibility deteriorated to the point of almost zero, yet the Captain continued the approach in belief the rain would clear up. At the missed approach altitude I called "go missed" approximately 3 times in an effort to get the Captain to discontinue the approach, yet the Captain continued his descent into the field. As he continued I continued to called negative contact, "GO missed". The Captain ignored all calls and continued until breaking out at an altitude of nearly 200 ft. AGL, which was an extremely low altitude so to the point we were short of the field and well below the glide path. The "break out" altitude was approximately 300 ft. bellow the appropriate ceiling requirements for the RNAV XX at ZZZ. Upon landing the Captain remarked "you were right, we should have went missed, I thought we were going to break out just below". I have never been more afraid for my life and terror than on that approach into ZZZ to the point I feared for my life as the Captain ignored all my pleas to go around. I reported this incident to the training Captain. This is not the first time this has happened while flying with other captains at Company X and the conduct has been reported to the director of operations and chief pilot multiple times and was told to "not make waves". The safety culture at Company X presents a serious risk to aviation safety as a whole.

Synopsis

Air taxi First Officer reported an unstabilized approach resulting in a CFTT event in inclement weather with close to zero reported visibility. The First Officer repeatedly asked the Captain to execute a go-around, yet the Captain ignored the requests. Post landing, Captain admitted a go-around would have been the best decision.

ACN: 2032417 *(9 of 50)*

Time / Day

Date : 202309

Place

Locale Reference.ATC Facility : ZZZ.TRACON
State Reference : US

Environment

Weather Elements / Visibility : Thunderstorm

Aircraft

Reference : X
ATC / Advisory.TRACON : ZZZ
Aircraft Operator : Air Carrier
Make Model Name : Commercial Fixed Wing
Crew Size.Number Of Crew : 2
Operating Under FAR Part : Part 121
Flight Plan : IFR
Mission : Passenger
Flight Phase : Descent
Airspace.Class E : ZZ

Person : 1

Location Of Person.Aircraft : X
Location In Aircraft : Flight Deck
Reporter Organization : Air Carrier
Function.Flight Crew : First Officer
Qualification.Flight Crew : Instrument
Qualification.Flight Crew : Multiengine
Qualification.Flight Crew : Air Transport Pilot (ATP)
ASRS Report Number.Accession Number : 2032417
Human Factors : Confusion
Human Factors : Distraction
Human Factors : Situational Awareness
Human Factors : Workload
Human Factors : Communication Breakdown
Communication Breakdown.Party1 : Flight Crew
Communication Breakdown.Party2 : ATC

Person : 2

Location Of Person.Aircraft : X
Location In Aircraft : Flight Deck
Reporter Organization : Air Carrier
Function.Flight Crew : Captain
Qualification.Flight Crew : Instrument
Qualification.Flight Crew : Multiengine
Qualification.Flight Crew : Air Transport Pilot (ATP)
ASRS Report Number.Accession Number : 2032418
Human Factors : Communication Breakdown

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

Events

Anomaly.ATC Issue : All Types
Anomaly.Deviation - Altitude : Overshoot
Anomaly.Deviation / Discrepancy - Procedural : Clearance
Anomaly.Inflight Event / Encounter : Weather / Turbulence
Anomaly.Inflight Event / Encounter : CFTT / CFIT
Detector.Person : Flight Crew
Detector.Person : Air Traffic Control
When Detected : In-flight
Result.Flight Crew : Requested ATC Assistance / Clarification
Result.Flight Crew : Became Reoriented
Result.Air Traffic Control : Issued New Clearance

Assessments

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

Narrative: 1

We had been picking our way through thunderstorms and were heading towards ZZZZZ into ZZZ at 12,000 ft. We had been talking with ATC about the deviations for weather and had just let them know we were back towards ZZZZZ. Shortly after this radio call ATC called us and said descend and maintain 10,000 ft. I read this back to them with our call sign. The Captain put 10,000 ft. into the FCU and we started down. When we started down I was thinking we are still a ways from ZZZZZ and we normally cross ZZZZZ at 14,000 ft. We were off our normal course into ZZZ because of the deviations and I thought maybe this is what the controller wanted? As we descended though I thought the terrain looked to close. I was about to key up the mic and ask ATC to confirm the altitude they wanted us to descend too when they called us back and told us we took another aircraft's clearance and we needed to climb back to 12,000 ft. It seemed that this controller was training because another voice came on and asked us if we had been told there was a similar call sign on frequency? We had not been told this we said. The flight continued without incident. Having two flights with similar sounding call signs arriving at the same time into ZZZ is a threat. Hopefully planning can work on changing this.

Narrative: 2

As we descended into the ZZZ area we responded to an ATC call to descend to and maintain 10000 ft. The First Officer (FO) who was the pilot monitoring read back this clearance with our call sign. I put the altitude in the FCU and we both verified on the FMA. We didn’t hear anything else from ATC until we were given a frequency change. We checked into the new frequency with our call sign and descent altitude. As we descend through 11000 ft. I cross referenced my GPWS terrain indication on my ND. The assigned altitude seemed lower than what I remembered in the past and there was some terrain

ahead that was now appearing yellow. Our routing was still a few thousand feet above the terrain along our route however and we were VMC so I didn't immediately have concerns and thought ATC had stepped us down a bit early. Descending through 10700 ft. ATC radioed and said to immediately climb to 12000 ft. and that we had taken our company aircraft's descent. Until now we had not been advised of a similar sounding call sign on frequency. ATC now informed us Aircraft Y was also on frequency and in the descent to ZZZ. The flight was completed without incident, but we were informed by ZZZ tower to contact TRACON of a possible pilot deviation. In doing so I had to call back multiple times as they informed me they were unable to access the recordings. Ultimately they called me back and said they were still working out the details but they believed we had taken another aircraft's frequency change but they couldn't say definitively. We never received a similar sounding call sign notification from ATC nor were we corrected during the initial read back or the new frequency check in. Both these things could have trapped this error. In addition having two company flights with similar call signs arriving at the same time should be avoided in the planning phase by the company. While we are not sure if we actually took the other aircraft's altitude assignment or ATC gave the altitude to the wrong similar call sign we admit it was possible that we made an error which we didn't catch.

Synopsis

Air Carrier flight crew reported ATC told them they took a similar sounding call sign's descent clearance and descended below the minimum altitude for terrain obstruction.

ACN: 2031710 *(10 of 50)*

Time / Day

Date : 202309
Local Time Of Day : 1201-1800

Place

Locale Reference.ATC Facility : ZZZ.ARTCC
State Reference : US
Altitude.MSL.Single Value : 41000

Aircraft

Reference : X
Aircraft Operator : Air Carrier
Make Model Name : B787 Dreamliner Undifferentiated or Other Model
Crew Size.Number Of Crew : 3
Operating Under FAR Part : Part 121
Flight Plan : IFR
Mission : Passenger
Flight Phase : Cruise

Person : 1

Location Of Person.Aircraft : X
Location In Aircraft : Flight Deck
Reporter Organization : Air Carrier
Function.Flight Crew : Pilot Not Flying
Function.Flight Crew : Captain
Qualification.Flight Crew : Multiengine
Qualification.Flight Crew : Air Transport Pilot (ATP)
Qualification.Flight Crew : Instrument
Experience.Flight Crew.Total : 7716.65
Experience.Flight Crew.Last 90 Days : 86.23
Experience.Flight Crew.Type : 624.32
ASRS Report Number.Accession Number : 2031710

Person : 2

Location Of Person.Aircraft : X
Reporter Organization : Air Carrier
Function.Flight Crew : Pilot Not Flying
Function.Flight Crew : First Officer
Qualification.Flight Crew : Multiengine
Qualification.Flight Crew : Air Transport Pilot (ATP)
Qualification.Flight Crew : Instrument
Experience.Flight Crew.Total : 3295.43
Experience.Flight Crew.Last 90 Days : 139.45
Experience.Flight Crew.Type : 851.83
ASRS Report Number.Accession Number : 2031724

Events

Anomaly.Deviation - Altitude : Excursion From Assigned Altitude
Anomaly.Deviation - Speed : All Types

Anomaly.Deviation / Discrepancy - Procedural : Published Material / Policy
Anomaly.Inflight Event / Encounter : Weather / Turbulence
Anomaly.Inflight Event / Encounter : Loss Of Aircraft Control
Detector.Person : Flight Crew
When Detected : In-flight
Result.General : Maintenance Action
Result.Flight Crew : Regained Aircraft Control

Assessments

Contributing Factors / Situations : Weather
Primary Problem : Weather

Narrative: 1

Unreported severe mountain wave encounter, 25-30 IAS gain, loss of 10 IAS, overspeed of 10 IAS, loss of 700'. Recovered back to FL410. Reported to ATC, Maintenance. No additional issues.

Narrative: 2

At FL410, we experienced severe mountain wave without warning. The aircraft descended about 700 feet and gained 25-30 knots. The total overspeed was about 10 knots with an overspeed warning. The flying pilot recovered the aircraft, and the pilot monitoring informed ATC. There was no other safety problem. We wrote it up and informed maintenance.

Synopsis

B787 Captain and relief pilot reported a 25-30 knot overspeed and altitude loss of 700 feet from severe mountain wave in cruise flight.

ACN: 2031581 *(11 of 50)*

Time / Day

Date : 202309

Place

Altitude.MSL.Single Value : 41000

Environment

Flight Conditions : VMC

Aircraft

Reference : X
Aircraft Operator : Air Carrier
Make Model Name : B787 Dreamliner Undifferentiated or Other Model
Crew Size.Number Of Crew : 2
Operating Under FAR Part : Part 121
Flight Plan : IFR
Mission : Passenger
Flight Phase : Cruise

Person

Location Of Person.Aircraft : X
Location In Aircraft : Flight Deck
Reporter Organization : Air Carrier
Function.Flight Crew : First Officer
Qualification.Flight Crew : Air Transport Pilot (ATP)
Qualification.Flight Crew : Multiengine
Qualification.Flight Crew : Instrument
Experience.Flight Crew.Total : 1874.60
Experience.Flight Crew.Last 90 Days : 73.85
Experience.Flight Crew.Type : 1511.18
ASRS Report Number.Accession Number : 2031581
Human Factors : Distraction

Events

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

Assessments

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

Narrative: 1

At 40nm north of ZZZ, FL410, XA:12, 18.5 fuel, day, clear, severe mtn wave, gain of 25-30 knots, loss of 10 knots, overspeed of 10knots, loss of 700 feet. Recovered. Occasional light turbulence, nothing more. We were in the middle of changing the approach/arrival and caught the jet accelerating 20+ knots and descending. Went idle and speed brakes, but it still continued to 5-10 knots into the red. Reported to ATC and company/maintenance. No other issues.

Synopsis

B-787 First Officer reported severe mountain wave that resulted in an over-speed and a loss of 700 feet in altitude during cruise at FL 410.

ACN: 2028890 *(12 of 50)*

Time / Day

Date : 202308
Local Time Of Day : 1201-1800

Place

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

Environment

Weather Elements / Visibility : Haze / Smoke

Aircraft : 1

Reference : X
ATC / Advisory.Tower : ZZZ
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 : Takeoff / Launch
Route In Use : Vectors
Airspace.Class C : ZZZ

Aircraft : 2

Reference : Y
ATC / Advisory.Tower : ZZZ
Aircraft Operator : FBO
Make Model Name : Small Aircraft
Crew Size.Number Of Crew : 2
Operating Under FAR Part : Part 91
Flight Plan : VFR
Mission : Training
Flight Phase : Final Approach
Airspace.Class C : ZZZ

Aircraft : 3

Reference : Z
ATC / Advisory.Tower : ZZZ
Aircraft Operator : FBO
Make Model Name : Small Aircraft, Low Wing, 1 Eng, Fixed Gear
Crew Size.Number Of Crew : 2
Operating Under FAR Part : Part 91
Flight Plan : VFR
Mission : Training
Flight Phase : Final Approach
Airspace.Class C : ZZZ

Person : 1

Location Of Person.Facility : ZZZ.Tower
Reporter Organization : Government
Function.Air Traffic Control : Local
Qualification.Air Traffic Control : Fully Certified
Experience.Air Traffic Control.Time Certified In Pos 1 (yrs) : 21
ASRS Report Number.Accession Number : 2028890
Human Factors : Communication Breakdown
Human Factors : Confusion
Human Factors : Workload
Human Factors : Situational Awareness
Communication Breakdown.Party1 : ATC
Communication Breakdown.Party2 : ATC

Person : 2

Location Of Person.Facility : ZZZ.Tower
Reporter Organization : Government
Function.Air Traffic Control : Local
Qualification.Air Traffic Control : Fully Certified
Experience.Air Traffic Control.Time Certified In Pos 1 (yrs) : 9
ASRS Report Number.Accession Number : 2028900
Human Factors : Communication Breakdown
Human Factors : Confusion
Human Factors : Workload
Human Factors : Situational Awareness
Communication Breakdown.Party1 : ATC
Communication Breakdown.Party2 : Flight Crew

Person : 3

Location Of Person.Aircraft : Y
Location In Aircraft : Flight Deck
Reporter Organization : FBO
Function.Flight Crew : Instructor
Qualification.Flight Crew : Flight Instructor
Qualification.Flight Crew : Instrument
Qualification.Flight Crew : Multiengine
Qualification.Flight Crew : Commercial
Experience.Flight Crew.Total : 798
Experience.Flight Crew.Last 90 Days : 132
Experience.Flight Crew.Type : 132
ASRS Report Number.Accession Number : 2031122
Human Factors : Communication Breakdown
Human Factors : Time Pressure
Human Factors : Workload
Human Factors : Confusion
Communication Breakdown.Party1 : Flight Crew
Communication Breakdown.Party2 : ATC

Events

Anomaly.ATC Issue : All Types
Anomaly.Conflict : Ground Conflict, Critical
Anomaly.Deviation / Discrepancy - Procedural : Published Material / Policy

Anomaly.Inflight Event / Encounter : Weather / Turbulence
Detector.Person : Flight Crew
Detector.Person : Air Traffic Control
When Detected : In-flight
Result.General : Flight Cancelled / Delayed
Result.Flight Crew : Executed Go Around / Missed Approach
Result.Flight Crew : Requested ATC Assistance / Clarification
Result.Flight Crew : Took Evasive Action
Result.Air Traffic Control : Issued New Clearance

Assessments

Contributing Factors / Situations : Airspace Structure
Contributing Factors / Situations : ATC Equipment / Nav Facility / Buildings
Contributing Factors / Situations : Human Factors
Contributing Factors / Situations : Procedure
Contributing Factors / Situations : Weather
Primary Problem : ATC Equipment / Nav Facility / Buildings

Narrative: 1

I was the relieving controller on local control. I had just accepted the position. There were two flight school aircraft on final to runway XX. There were at least 5 aircraft waiting to go at runway XL. Weather was hazy and could not see the aircraft. I cleared Aircraft Y to land runway XX. He was about 2 miles out. Another flight school aircraft keyed up and said he was on runway XX. I had no idea what was going on, as I was just briefed and nothing was said about an aircraft being on that runway. The controller being relieved was still plugged in with me and he explained that it was probably the previous aircraft that he thought he had cleared for takeoff and departed a few minutes previous. That aircraft was still on the runway holding in position at hotel intersection. I told the Aircraft Y on final to go-around, then went back and started asking Aircraft X where he was and to exit the runway. I could not see Aircraft X on the runway due to the haze and how far away that runway is from the tower. I thought the runway was clear because I was never briefed on any aircraft still holding in position. I still felt uncomfortable as to where Aircraft X was, so I sent Aircraft Y on final to go-around. There was some back and forth communications with Aircraft X on the runway. He finally cleared the runway and decided to taxi back to parking. We really need ground radar at this facility. It is just a matter of time before a catastrophic event happens involving all of these aircraft. We just cannot see them! We are running a one runway operation here most of the time because we always have one of the parallels closed due to various reasons.

Narrative: 2

I instructed Aircraft X to LUAW (Line Up and Wait) RWY XX at intersection [taxiway] 1 to ensure they were lining up in the correct direction. I then turned my attention to the active RWY which was RWY XL and cleared numerous A/C to land and take off. I believed I cleared Aircraft X for takeoff and either did not or transmission was blocked or did not go out. I then vectored 2 flight school a/c off the RWY XL final to RWY XX to accommodate IFR departures off RWY XL. After departures cleared, I then cleared to two flight school A/C to land on RWY XX. When the first Aircraft Y was an estimated 2 mile final, Aircraft X advised tower that they were still on the RWY XX. As I was performing my 2 minute overlap the relieving controller instructed Aircraft Y and Aircraft Z to go around for re-sequencing and taxied Aircraft X off RWY XX and back to their ramp. Surface detection equipment and having sufficient help would have helped greatly in this situation.

Narrative: 3

Was flying radar vectors for the visual Runway XX into ZZZ. Tower cleared me and my student to land Runway XX. We flew the Visual Approach straight on. On short Final, I noticed Aircraft X on the Runway, halfway down the Runway. I was waiting to see if it was going to exit the Runway, as it was almost parallel to an exit of Runway XX. We continued to fly the visual down, while I told my student to prepare for a go around. Aircraft X on the Runway keyed up his microphone and asked if he was cleared to leave the Runway. At this point, the Controller sounded confused and asked for clarification. They were talking, and I told my student to go around as the Controller told us to go around. I was waiting to see if we could tell the Controller were were going around as I was not sure if there was a plane taking of Runway XL straight into us at the time. On the go around, Aircraft Z behind us was also told to go around. The Controller told us to fly right downwind for Runway XX. We complied and noticed that we would be overflying Runway XL which was the active runway for commercial traffic. The Controller then told us we were cleared for Runway XL. Based on our position, we were overflying the departure end of Runway XL. I asked if she wanted us to make a left turn for Runway XL. She confused me with Aircraft Z, even after I corrected her with our call sign. She then made some comments and vectored us outbound before establishing us on final for XL.

Synopsis

Tower Controllers and a flight school instructor reported the instructor initiated a go around from short final due to another flight school aircraft being on the runway. The Controllers reported a mix up in communications, their inability to see the runway involved, and no ground radar contributed to their lack of awareness of an aircraft on the runway.

ACN: 2028563 *(13 of 50)*

Time / Day

Date : 202308
Local Time Of Day : 0601-1200

Place

Locale Reference.ATC Facility : ZZZ.TRACON
State Reference : US
Altitude.MSL.Single Value : 3000

Environment

Flight Conditions : IMC
Weather Elements / Visibility : Rain
Weather Elements / Visibility : Turbulence
Weather Elements / Visibility.Visibility : 3
Light : Daylight
Ceiling.Single Value : 1400

Aircraft

Reference : X
ATC / Advisory.TRACON : ZZZ
Aircraft Operator : Personal
Make Model Name : Skylane 182/RG Turbo Skylane/RG
Crew Size.Number Of Crew : 1
Operating Under FAR Part : Part 91
Flight Plan : IFR
Mission : Personal
Nav In Use : GPS
Nav In Use.Localizer/Glideslope/ILS : ILS ZZL
Flight Phase : Final Approach
Route In Use : Direct
Airspace.Class D : ZZZ

Person

Location Of Person.Aircraft : X
Location In Aircraft : Flight Deck
Reporter Organization : Personal
Function.Flight Crew : Single Pilot
Function.Flight Crew : Captain
Qualification.Flight Crew : Private
Qualification.Flight Crew : Instrument
Experience.Flight Crew.Total : 400
ASRS Report Number.Accession Number : 2028563
Human Factors : Communication Breakdown
Human Factors : Situational Awareness
Human Factors : Training / Qualification
Human Factors : Workload
Human Factors : Other / Unknown
Human Factors : Distraction

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

Events

Anomaly.ATC Issue : All Types
Anomaly.Deviation - Altitude : Excursion From Assigned Altitude
Anomaly.Deviation - Altitude : Overshoot
Anomaly.Deviation - Track / Heading : All Types
Anomaly.Deviation / Discrepancy - Procedural : Published Material / Policy
Anomaly.Deviation / Discrepancy - Procedural : Clearance
Anomaly.Inflight Event / Encounter : Weather / Turbulence
Anomaly.Inflight Event / Encounter : Loss Of Aircraft Control
Detector.Automation : Air Traffic Control
Detector.Person : Flight Crew
Detector.Person : Air Traffic Control
When Detected : In-flight
Result.Flight Crew : Regained Aircraft Control
Result.Flight Crew : Became Reoriented
Result.Air Traffic Control : Issued Advisory / Alert

Assessments

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

Narrative: 1

In the morning, I started a VFR flight from ZZZ1 to ZZZ. I departed VFR knowing that the weather at ZZZ was marginal but possibly improving. As I approached ZZZ, I could see that that ceilings were not as forecast. Approaching, I decided to file a pop-up IFR flight plan with Center, who at the time, was monitoring my flight through flight following. As I approached ZZZ, I was handed off to Approach close to ZZZ2. At the time of hand off, ATC asked me what approach I would like and I choose the ILS for XXL, circle XXR. I choose this by default as I always will choose the ILS when able, due to the accuracy and the ability to provided a lower DA. My error in choosing this approach, was that this certain approach was in-operative at the time I requested. I was aware of the notam being ZZZ is my home airport. For reason's listed above, I choose this approach subconsciously making a critical error. I was allowed to continue on for the ILS at ZZZ. As I entered in to the nearby Class C airspace, I could see that the ceilings were possibly lower than what may have been originally forecast. As I approached north of the airport, I went to Ident the LOC frequency and did not get a tone. Although concerning, I thought maybe it was my location relative to the airport and had planned to check again as I got closer to the approach. As I entered the approach, ATC cleared me for the ILS XXL, circle XXR. As I was cleared for the approach, I went to test the identifier for the LOC once again. As I was doing this, I received communication from Approach that the ILS was inoperative at ZZZ. They changed my approach to the RNAV YYL Circle XXR. Being in full IMC, and as I already had the airplane set-up for the ILS, I struggled getting the information into the GPS and pulling the new approach plate so that I could properly brief the approach. As I approached the IF assigned, I was having issues putting the IF in the GPS. At this point, I had the AP (Autopilot) off as I always hand fly all approaches. As I blew the RNAV intercept, I attempted to turn back into it. Being distracted by my GPS, I inadvertently

took my eyes off the instruments and did not have my AP engaged. At this point, I noticed a concerning sound in my headset, knowing it was wind caused by increased speed, looked at my VSI and seen a 1500 FPM descent. I was still in full IMC and took evasive actions to correct the attitude of the airplane. In addition to being in a dive, I was in a right banking turn. I was able to get the power pulled out, level the wings, and ultimately, able to stop the descent. During this time, ZZZ Approach broadcast an altitude alert. After getting the airplane stabilized, I reengaged the auto pilot and climbed to 3000 ft. At this point, I was given the option to reattempt the previous botched approach and I mentioned that I was not comfortable with the ceilings and would like to go to a VFR airport if possible. With nothing VFR available, I choose to set up for the RNAV XYL at ZZZ3. In the seconds that I experienced the incident, I lost close to 1200 ft in just a few seconds increasing my airspeed close to 180 kts. Everything leading up to the approach was comfortable, manageable, and for the most part, normal. I have re-ran the entire situation over and over in my mind, as well as reviewing ADSB data. After extensive review, I feel the point where things started to go south, was when I transitioned from the ILS to RNAV. I spent to much valuable time setting up the approach which led me not to take me eyes of my instruments, which is key to instrument flight. Knowing how to recover from an unusual attitude in IMC, ultimately saved my life!

Synopsis

Cessna 182 pilot reported becoming distracted during single pilot operation in IMC on approach and entering an unusual attitude. The pilot took immediate actions to recover the aircraft and elected to do an approach into a nearby airport.

ACN: 2028114 *(14 of 50)*

Time / Day

Date : 202308
Local Time Of Day : 1201-1800

Place

Locale Reference.ATC Facility : ZZZ.ARTCC
State Reference : US
Altitude.MSL.Single Value : 19000

Environment

Flight Conditions : IMC
Weather Elements / Visibility : Turbulence
Weather Elements / Visibility : Thunderstorm
Weather Elements / Visibility : Windshear
Weather Elements / Visibility.Visibility : 0
Light : Daylight
Ceiling.Single Value : 12000

Aircraft

Reference : X
ATC / Advisory.Center : ZZZ
Aircraft Operator : Personal
Make Model Name : Epic Aircraft Undifferentiated or Other Model
Crew Size.Number Of Crew : 1
Operating Under FAR Part : Part 91
Flight Plan : IFR
Mission : Personal
Flight Phase : Cruise
Airspace.Class A : ZZZ

Person

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
Experience.Flight Crew.Total : 2285
Experience.Flight Crew.Last 90 Days : 50
Experience.Flight Crew.Type : 1235
ASRS Report Number.Accession Number : 2028114
Human Factors : Communication Breakdown
Human Factors : Time Pressure
Human Factors : Workload
Human Factors : Situational Awareness
Communication Breakdown.Party1 : Flight Crew
Communication Breakdown.Party2 : ATC

Events

Anomaly.ATC Issue : All Types
Anomaly.Deviation - Altitude : Excursion From Assigned Altitude
Anomaly.Inflight Event / Encounter : Weather / Turbulence
Anomaly.Inflight Event / Encounter : Loss Of Aircraft Control
Detector.Person : Flight Crew
When Detected : In-flight
Result.Flight Crew : Became Reoriented
Result.Flight Crew : Requested ATC Assistance / Clarification
Result.Flight Crew : Regained Aircraft Control
Result.Air Traffic Control : Provided Assistance
Result.Air Traffic Control : Issued New Clearance

Assessments

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

Narrative: 1

Adverse Clearance Revision without timely modification resulted in encounter with severe convective vertical wind shear. Departed ZZZ on IFR clearance to ZZZ1 at 33000 ft. via the ZZZZZ1 arrival. Preflight briefing showed route of flight through convective outlook area. Upon handoff to center, and to my dismay, ATC cleared us only to FL190 and said to expect no higher (14,000 feet below cleared flight plan route). With lots of deep moist convection in sight ahead I asked for higher and was denied. It was necessary to request multiple lateral deviations to avoid buildups. Other aircraft were doing the same. Repeated request for higher and was told airspace above too congested though we could see very few aircraft on TCAS within 40 miles of our position. A 40 degree right turn from ZZZZZ to ZZZ [VOR] had us pointed directly into fast rising convective clouds - towering cumulus. Again asked for immediate climb or turn back to the left to avoid weather. No response from ATC. We entered the cloud and experienced an uncommanded ascent above our selected altitude which the autopilot could not correct. There was intense convective vertical wind shear in excess of 6000 feet per minute. The plane experienced a 5000+FPM instantaneous rate of ascent and inside of 32 seconds had ascended nearly 3,000 feet, far beyond the climb capability of the airplane. I disconnected the autopilot and began roll and pitch changes to arrest the climb, get the aircraft under control and back down to its assigned altitude. The downward descent rate was nearly as high, exceeding 4000 FPM. Within the ensuring minute we were back down to 19000 ft, out of the clouds and headed toward ZZZ [VOR]. But the route ahead looked worse despite ATC saying they could see no weather. Not a surprise because the developing thunderstorm clouds had not reached full maturation. Our datalink weather display was showing severe weather along our route ahead. So I asked again for higher and, when handed off to the next controller, requested vectors to the north. We were cleared to FL230 and were given vectors all the way to ZZZ1. The remainder of the flight was uneventful. The cause of the adverse weather encounter was a result of a controller at workload saturation managing congested airspace full of threatening weather who was unable to provide a timely deviation clearance. My deviation request came too late to avoid the severe convective vertical shear present in developing deep moist convective atmosphere. As soon as I was advised that my route would take me through, rather than over, an area of developing thunderstorm clouds I should have rejected the clearance and negotiated a different route as I ultimately did. I

also believe that more ARTCC personnel should be assigned to work busy airspaces when unusually severe weather (Hurricane was in area) is expected. That would make provide more time and flexibility to direct traffic safely through such areas.

Synopsis

Epic E1000 pilot reported ATC did not approve their weather deviation request which resulted in them encountering Wind Shear and an uncontrolled 3000 ft. climb. Pilot regained control of aircraft and returned to assigned altitude.

ACN: 2027515 *(15 of 50)*

Time / Day

Date : 202308
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 : Turbulence
Weather Elements / Visibility.Visibility : 10
Light : Daylight

Aircraft

Reference : X
ATC / Advisory.Tower : ZZZ
Aircraft Operator : FBO
Make Model Name : J3 Cub
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 D : ZZZ

Person

Location Of Person.Aircraft : X
Location In Aircraft : Flight Deck
Reporter Organization : FBO
Function.Flight Crew : Pilot Flying
Function.Flight Crew : Trainee
Qualification.Flight Crew : Instrument
Qualification.Flight Crew : Multiengine
Qualification.Flight Crew : Flight Instructor
Experience.Flight Crew.Total : 2793
Experience.Flight Crew.Last 90 Days : 11
Experience.Flight Crew.Type : 8
ASRS Report Number.Accession Number : 2027515
Human Factors : Communication Breakdown
Human Factors : Situational Awareness
Human Factors : Training / Qualification
Human Factors : Other / Unknown
Human Factors : Confusion
Communication Breakdown.Party1 : Flight Crew
Communication Breakdown.Party2 : Flight Crew

Events

Anomaly.Deviation / Discrepancy - Procedural : Published Material / Policy
Anomaly.Ground Excursion : Runway
Anomaly.Ground Incursion : Taxiway
Anomaly.Ground Event / Encounter : Loss Of Aircraft Control
Anomaly.Ground 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 : Weather
Primary Problem : Ambiguous

Narrative: 1

As a 2900+ hour CFII who had always flown tricycle gear aircraft, I decided to receive training towards a tailwheel endorsement. I proceeded to receive training in a PA-11 at ZZZ. From the beginning I had difficulties with rudder control, resulting in overcorrections. With practice, these became less troublesome, but I still had difficulties making consistent wheel landings. On the morning of the incident, we had a left crosswind of about 40 degrees with winds gusting up to 15 kt. I questioned the [instructor] if it would be appropriate at my stage of training to fly. The instructor said we could proceed. The initial takeoff was uneventful, but on climb out I noticed moderate turbulence. We remained in the pattern to practice wheel landings. On my first approach and landing, the gusty crosswinds were difficult to deal. My rudder control was adequate but I bounced the landing and finally settled it on the runway further down before adding power for the touch and go. The second landing attempt was better but I still bounced slightly and had difficulty getting the stick forward to keep the airplane on the ground. On the third attempt, I succeeded in maintaining good runway alignment, was able to plant the airplane on the ground without bouncing and continued to track down the runway. I decided that I should declare success, added power for the touch and go and lifted off the runway. The instructor thought otherwise and pulled the power back so that I could make a second touchdown. The change in plans took me by surprise. We touched down and as I was trying to get the tail back up, I must have inadvertently added too much right rudder. The airplane started to head for the side of the runway, so the instructor yelled for me to let go of all the controls. He added power but the aircraft veered further right towards the the edge of the runway. He pulled the power back and we rolled across the grass area and slowly reentered the taxi ramp. We requested taxi clearance back to hangars to inspect the aircraft. I taxied the aircraft back with no further problems. We detected no damage to the aircraft. As we approached the parking area Ground Control asked us to contact them or Tower about the runway excursion The instructor thought that I may have inadvertently applied the right brake as he was adding power. I told him I didn't think I had because since the aircraft has heel brakes, I always have to work hard to reposition my heels to apply the brakes. I suspect the problem was a combination of an already deflected rudder, a gust of wind, and the yaw from suddenly adding power. On reflection, it probably wasn't a good decision to attempt training in gusty wind conditions without first having mastered tailwheel flying under normal circumstances. The instructor said he would contact the Tower.

Synopsis

Pilot reported a runway excursion during gusty wind conditions while receiving training in a tail-wheel aircraft. The instructor took over the controls as the aircraft rolled into a grass area undamaged, then taxied to the hangar.

ACN: 2027345 *(16 of 50)*

Time / Day

Date : 202308
Local Time Of Day : 1201-1800

Place

Locale Reference.ATC Facility : ZZZ.TRACON
State Reference : US
Altitude.MSL.Single Value : 8900

Environment

Weather Elements / Visibility : Turbulence

Aircraft

Reference : X
ATC / Advisory.TRACON : ZZZ
Aircraft Operator : Air Carrier
Make Model Name : EMB ERJ 170/175 ER/LR
Crew Size.Number Of Crew : 2
Operating Under FAR Part : Part 121
Flight Plan : IFR
Mission : Passenger
Flight Phase : Initial Climb
Route In Use.SID : ZZZZZ
Airspace.Class C : ZZZ

Person : 1

Location Of Person.Aircraft : X
Location In Aircraft : Flight Deck
Reporter Organization : Air Carrier
Function.Flight Crew : Pilot Not Flying
Function.Flight Crew : First Officer
Qualification.Flight Crew : Multiengine
Qualification.Flight Crew : Air Transport Pilot (ATP)
Qualification.Flight Crew : Instrument
ASRS Report Number.Accession Number : 2027345
Human Factors : Workload
Human Factors : Situational Awareness

Person : 2

Location Of Person.Aircraft : X
Location In Aircraft : Flight Deck
Reporter Organization : Air Carrier
Function.Flight Crew : Pilot Flying
Function.Flight Crew : Captain
Qualification.Flight Crew : Multiengine
Qualification.Flight Crew : Air Transport Pilot (ATP)
Qualification.Flight Crew : Instrument
ASRS Report Number.Accession Number : 2027347
Human Factors : Workload

Human Factors : Time Pressure
Human Factors : Situational Awareness

Events

Anomaly.Deviation - Altitude : Crossing Restriction Not Met
Anomaly.Deviation - Altitude : Undershoot
Anomaly.Deviation / Discrepancy - Procedural : Published Material / Policy
Anomaly.Deviation / Discrepancy - Procedural : Clearance
Anomaly.Inflight Event / Encounter : Weather / Turbulence
Anomaly.Inflight Event / Encounter : CFTT / CFIT
Detector.Person : Flight Crew
When Detected : In-flight
Result.Flight Crew : Requested ATC Assistance / Clarification
Result.Flight Crew : Became Reoriented
Result.Air Traffic Control : Issued Advisory / Alert

Assessments

Contributing Factors / Situations : Airspace Structure
Contributing Factors / Situations : Chart Or Publication
Contributing Factors / Situations : Human Factors
Contributing Factors / Situations : Procedure
Contributing Factors / Situations : Weather
Primary Problem : Human Factors

Narrative: 1

Departed ZZZ on the ZZZZZ departure. Standard departure procedures. When climbing on the departure we were in VFR conditions with a fair amount of turbulence but weren't concerned about any terrain as we picked up airspeed for to 250 knots. It seemed initially we would be above 9800 ft. at ZZZZZ but as we climbed it became apparent we were not going to meet the crossing restriction and did not have time to correct pitch enough and ended up around 300 feet low. We did receive a low altitude warning from ATC but informed them at that time we would be above terrain and any other crossing restriction wouldn't be a problem. Cause: Not paying enough attention to climb performance during a turbulent climb out early enough to take corrective action to increase climb rate enough to be at or above a departure crossing restriction. Suggestions: Keep the pitch off the aircraft up with a lower climb out speed to have a higher climb rate necessary for crossing restriction instead of making sure the aircraft is accelerating to 250 knots. Especially in turbulent wind conditions.

Narrative: 2

Taking off [Runway] XXR ZZZ. I've taken off and landed several times through the year. But it was definitely hotter at this time of year. So when we took off we got into some light to moderate turbulence coming out bouncing around. We cleaned the plane up as soon as we could and went to climb 1 so that we could have the extra power climbing out. Well the plane wanted to pitch over to meet the preset airspeed. I was hand flying at this point for better control through the bumps. As we were climb I became aware too late to realize we weren't going to make 9200 ft. on the ZZZZZ [arrival] at ZZZ. We cross it at about 8900 ft. We met all other altitudes easily. Thinking about potential causes. A slower power setting for the altitude and temperature than what we should have had. Then the next issue was me not adjusting the planes pitch. What I should have done is taken off with max to1 vs to1 with flex power. And adjusted the pitch so that the climb was made vs following the pitch that the plane wanted to do for the airspeed set in.

Synopsis

Air carrier flight crew reported during climb out in turbulence they were below a crossing restriction on the SID and received a Low Altitude Alert from ATC.

ACN: 2027140 *(17 of 50)*

Time / Day

Date : 202308
Local Time Of Day : 1801-2400

Place

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

Environment

Light : Daylight

Aircraft

Reference : X
ATC / Advisory.TRACON : ZZZ
Aircraft Operator : Air Carrier
Make Model Name : B737-700
Crew Size.Number Of Crew : 2
Operating Under FAR Part : Part 121
Flight Plan : IFR
Mission : Passenger
Nav In Use.Localizer/Glideslope/ILS : ILSXX
Flight Phase : Climb
Route In Use : Visual Approach
Route In Use : Vectors

Component

Aircraft Component : Engine Indications
Aircraft Reference : X
Problem : Malfunctioning

Person

Location Of Person.Aircraft : X
Location In Aircraft : Flight Deck
Reporter Organization : Air Carrier
Function.Flight Crew : Pilot Not Flying
Function.Flight Crew : Captain
Qualification.Flight Crew : Air Transport Pilot (ATP)
Qualification.Flight Crew : Multiengine
Qualification.Flight Crew : Instrument
Experience.Flight Crew.Last 90 Days : 250
Experience.Flight Crew.Type : 19000
ASRS Report Number.Accession Number : 2027140
Human Factors : Situational Awareness
Human Factors : Troubleshooting

Events

Anomaly.Aircraft Equipment Problem : Critical
Anomaly.Deviation - Speed : All Types
Anomaly.Deviation / Discrepancy - Procedural : Published Material / Policy
Anomaly.Inflight Event / Encounter : Weather / Turbulence
Anomaly.Inflight Event / Encounter : Unstabilized Approach
Detector.Automation : Aircraft Other Automation
Detector.Person : Flight Crew
When Detected : In-flight
Result.Flight Crew : Returned To Departure Airport

Assessments

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

Narrative: 1

Taxi and takeoff were uneventful, although on taxi-out, ZZZ Tower advised us of LLWS +/- 20 knots on final for [Runway] XXL. the FO (First Officer) was PF (Pilot Flying), and I was PM. The FO asked how ATC had that information in the absence of a PIREP. ATC explained that they used technology. We departed XXL with an assigned heading of 150 and a clearance to climb to 3000 ft. On a right downwind, were switched to departure. At that moment, just south of ZZZ1, the right engine experienced severe vibration accompanied with abnormal N1 and EGT indications. The EGT indicated an exceedance and displayed a red "disk". ATC cleared us to 6000 ft, but I set the altitude in the MCP (Mode Control Panel) to 3000 ft and advised Captain to maintain heading. It took several seconds to transmit to ATC, due to multiple aircraft in the approach/departure corridor. I advised ATC and requested immediate return to ZZZ. ATC asked if we were ready to return right away, and I informed them that we needed vectors to a safe area to allow us to run a checklist, then we would advise them. I started the Engine Vibration Checklist, then stopped. I reminded Captain that we had an exceedance, and the correct checklist was the Engine Fire, Failure, Severe Damage, or Separation QRC, followed by the QRH. We followed both the QRC and QRH deliberately and methodically, and once we were on the Deferred Items of the Engine Inoperative Landing Checklist, I requested vectors to the ILS XY Approach, and briefed the visual approach backed up by the ILS. We were landing Flaps 15, using speed off the INIT REF page, after verifying that we were not overweight. ATC advised us of LLWS on final approach. I referred to PROG PAGE 2 to ensure that we were not landing with a tailwind component. It was difficult to slow the aircraft down to VREF at Flaps 15, so I extended the speedbrake 30% to create drag. (The limitation for use of speedbrakes are up to Flaps 10). I explained to Captain that I had to "hang some tin" to get the speed under control, and we did not want excess kinetic energy. We landed with Autobrakes 3, taxied off at taxiway 1, and were instructed to wait at the holding pad. The ARFF (Airport Rescue and Firefighting) inspected the exterior of the aircraft, especially the right engine, then took the brake temperature (700C). After 30 minutes, we were cleared to be towed to the ramp. The Flight Attendants performed an excellent job of controlling the Passengers and keeping them calm. There were only XX people onboard, but not everyone spoke English, so that was a challenge. I kept the Passengers and Crew informed during the whole adventure, explaining that we would return to ZZZ and exchange this aircraft for a "newer one". I did this in English and in Spanish. My F/O performed his PF tasks flawlessly, displaying superb airmanship and reflecting the quality of his training. The Flight Attendants are to be commended on their professionalism and actions, which kept all of our customers safe from the moment of the fire to the deplaning at the gate. Good

preparation and constant drills in the simulator, along with standardized briefings and adherence to SOPs made this event resemble a training exercise rather than a full-blown emergency. Every Crew Member did their jobs flawlessly. My only exception was the deliberate use of speedbrakes at Flaps 15, when the SOP prohibits their use above flaps 10. I chose this course of action because the risk of damaging the flap/speedbrakes was outweighed by the risk of a high-energy touchdown and a possible overrun, or the risk of a single-engine go-around in conditions of low-level windshear.

Synopsis

B737 Captain reported an engine vibration and EGT exceedance during climb. The crew returned to the departure airport and landed safely.

ACN: 2027095 *(18 of 50)*

Time / Day

Date : 202308

Place

Locale Reference.ATC Facility : ZZZ.ARTCC
State Reference : US
Altitude.MSL.Single Value : 31000

Environment

Flight Conditions : IMC
Weather Elements / Visibility : Icing
Light : Daylight

Aircraft

Reference : X
ATC / Advisory.Center : ZZZ
Aircraft Operator : Air Carrier
Make Model Name : Regional Jet 700 ER/LR (CRJ700)
Crew Size.Number Of Crew : 2
Operating Under FAR Part : Part 121
Flight Plan : IFR
Mission : Passenger
Flight Phase : Cruise
Airspace.Class A : ZZZ

Component : 1

Aircraft Component : APU
Problem : Malfunctioning

Component : 2

Aircraft Component : Ice/Rain Protection System
Problem : Malfunctioning

Person : 1

Location Of Person.Aircraft : X
Location In Aircraft : Flight Deck
Reporter Organization : Air Carrier
Function.Flight Crew : Pilot Flying
Function.Flight Crew : First Officer
Qualification.Flight Crew : Multiengine
Qualification.Flight Crew : Air Transport Pilot (ATP)
Qualification.Flight Crew : Instrument
ASRS Report Number.Accession Number : 2027095
Human Factors : Workload
Human Factors : Situational Awareness
Human Factors : Distraction

Person : 2

Location Of Person.Aircraft : X
Location In Aircraft : Flight Deck
Reporter Organization : Air Carrier
Function.Flight Crew : Pilot Not Flying
Function.Flight Crew : Captain
Qualification.Flight Crew : Multiengine
Qualification.Flight Crew : Air Transport Pilot (ATP)
Qualification.Flight Crew : Instrument
ASRS Report Number.Accession Number : 2027104
Human Factors : Workload
Human Factors : Situational Awareness
Human Factors : Distraction

Events

Anomaly.Aircraft Equipment Problem : Critical
Anomaly.Deviation - Track / Heading : All Types
Anomaly.Deviation / Discrepancy - Procedural : Clearance
Anomaly.Inflight Event / Encounter : Weather / Turbulence
Detector.Person : Flight Crew
When Detected : In-flight
Result.Flight Crew : Returned To Clearance

Assessments

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

Narrative: 1

Leaving originating airport, APU door would not close. Speed thereafter was limited to 220 KIAS. Altitude initially limited to FL240 but later was able to climb to FL310 as our weight decreased. En route we ran into inclement weather and were unable to climb above it. In icing conditions, we utilized our wing and cowl anti ice. A few moments after, we received a Master warning "Anti Ice Duct". As led by the QRH, we turned off our anti ice equipment and searched for our closest option out of icing. As the Captain queried ATC as to the bases of the clouds, we saw a brief opening of clear air off to our right. There was some initial confusion with ATC as to why we needed to deviate from our current flight path. In effort to not lose the opportunity we began our turn just prior to ATC clearing us to do so. We were able to parallel our course for a short time and return soon after. After this, and still with our speed and altitude restrictions, ATC [requested priority handling] on our behalf to our limitations, sequencing into destination and VIP presence in there. From then on the flight continued safely and a normal landing was made. Cause: APU door failed in an unknown position limiting speed and altitude. Anti Ice duct prohibited us from flying in icing conditions. Additional factors as to why [priority handling was requested] include large flow of traffic going into destination and heightened security measures at the airport. Suggestions: I think it would be tough to predict either failure. Continuing to destination seemed like the best decision based on icing forecasts and reported weather.

Narrative: 2

APU door failed to close on departure giving us APU door open caution and APU door status. Altitude limited to FL240 due to weight at APU door speed. Lower altitude left us in IMC avoiding weather. Once at FL310 as we had burned off weight to climb, the Anti ice duct master warning EICAS populated. The QRH told us to turn off the wing anti ice and

leave icing conditions. I queried ATC for bases and they were confused by our requests so I told them we were turning right to leave the icing where the First Officer and I had last seen clear air. While ATC did eventually come to understand the situation, I believe my turn to exit may have been just prior to them clearing us to do so. We rejoined our course when it would not have required flying into further icing conditions. ATC [requested priority handling] on our behalf for our inability to go faster, higher, remain perfectly on course, and for a small mention of potential VIP movement. We continued to our destination safely. Cause: APU DOOR failure to show closed and associated APU door open caution restricted speed and altitude. ANTI ICE DUCT master warning restricted ability to fly in icing conditions. Suggestions: No simple solution due to limited divert options given weather conditions and inability to fly through ice normally. Safest course of action as determined by us at the time was to continue to our destination as it was known to be warm enough to not have ice.

Synopsis

ACRJ-700 flight crew reported an APU door malfunction, and subsequent Anti-Ice Duct warning, which precluded the ability to operate in icing conditions.

ACN: 2027067 *(19 of 50)*

Time / Day

Date : 202308
Local Time Of Day : 0001-0600

Place

Locale Reference.ATC Facility : CLT.Tower
State Reference : NC
Altitude.MSL.Single Value : 1200

Environment

Flight Conditions : IMC
Weather Elements / Visibility : Cloudy

Aircraft

Reference : X
Aircraft Operator : Air Carrier
Make Model Name : Commercial Fixed Wing
Crew Size.Number Of Crew : 2
Operating Under FAR Part : Part 121
Flight Plan : IFR
Mission : Passenger
Flight Phase : Final Approach

Component

Aircraft Component : Radio Altimeter
Aircraft Reference : X
Problem : Malfunctioning

Person : 1

Location Of Person.Aircraft : X
Location In Aircraft : Flight Deck
Reporter Organization : Air Carrier
Function.Flight Crew : Pilot Flying
Function.Flight Crew : Captain
Qualification.Flight Crew : Multiengine
Qualification.Flight Crew : Air Transport Pilot (ATP)
Qualification.Flight Crew : Instrument
ASRS Report Number.Accession Number : 2027067
Human Factors : Human-Machine Interface
Human Factors : Confusion

Person : 2

Location Of Person.Aircraft : X
Location In Aircraft : Flight Deck
Reporter Organization : Air Carrier
Function.Flight Crew : Pilot Not Flying
Function.Flight Crew : First Officer
Qualification.Flight Crew : Multiengine

Qualification.Flight Crew : Air Transport Pilot (ATP)
Qualification.Flight Crew : Instrument
ASRS Report Number.Accession Number : 2026449
Human Factors : Human-Machine Interface
Human Factors : Confusion

Events

Anomaly.Aircraft Equipment Problem : Less Severe
Anomaly.Deviation / Discrepancy - Procedural : Published Material / Policy
Anomaly.Inflight Event / Encounter : Weather / Turbulence
Anomaly.Inflight Event / Encounter : Unstabilized Approach
Detector.Person : Flight Crew
Result.Flight Crew : Overcame Equipment Problem

Assessments

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

Narrative: 1

During the approach, flight crew was actively configuring the aircraft to Flaps 30 and reducing speed to achieve the stable approach criteria by 1000 ft. AGL. However, in the process of introducing our final flaps of 30 degrees, the aircraft made RA call of "One thousand." However, we looked at our radio altimeter and it read 1200-1300. We confirmed all three barometric altimeters read approximately 1730 MSL. After a brief discussion of a go-around, Captain determined it was safe to introduce flaps 30 at that time 1100-1200 AGL and continue the final items of the landing checklist below 1000 ft. AGL. We later discussed the possibility the Radio Altimeter was experiencing interference. The remainder of the approach was safely flown to a completed landing. Cause- We anticipated the morning low level cloud layer to lift prior to conducting the approach to 36R at CLT. However, the clouds did not lift and the First Officer, with prior discussion, relinquished the flight controls to the Captain on radar downwind. The reason for the exchange was so the Captain could fly the aircraft using CAT III criteria to ensure our arrival into CLT. We later discussed possible Radio Altimeter interference as causal on our delay to call our approach stable just under 1000 ft. AGL. Suggestions- Control Radio Altimeter spectrum interference in the vicinity of CLT airport.

Narrative: 2

During the approach, flight crew was actively configuring the aircraft to Flaps 30 and reducing speed to achieve the stable approach criteria by 1000 ft. above ground. However, in the process of introducing our final flaps of 30 degrees, the aircraft made the "One thousand," call. However, we looked at our radio altimeter and it read 1200-1300. After a brief discussion of a go-around, Captain determined it was safe to introduce flaps 30 at that time 1100-1200 RA and continue the final items of the landing checklist below 1000 ft. RA. Cause- We anticipated the morning low level cloud layer to lift prior to conducting the approach to 36R at CLT. However, the clouds did not lift and the First Officer, with prior discussion, relinquished the flight controls to the Captain prior to being vectored onto the final approach course. The reason for the exchange was so the pilot flying could execute a CAT III landing to ensure our arrival into CLT. Suggestions- The event could

have been mitigated with a discussion and response to the task before entering the final phases of the descent/approach.

Synopsis

Air carrier flight crew reported a radio altimeter "call-out" that contradicted the radio altitude displayed in the cockpit. The flight crew suspected possible 5G radio interference and continued the CAT III approach to a normal landing.

ACN: 2026967 *(20 of 50)*

Time / Day

Date : 202307
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 : 3300

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 : None
Mission : Personal
Flight Phase : Taxi

Person

Location Of Person.Aircraft : X
Location In Aircraft : Flight Deck
Reporter Organization : Personal
Function.Flight Crew : Single Pilot
Function.Flight Crew : Pilot Flying
Qualification.Flight Crew : Flight Instructor
Qualification.Flight Crew : Instrument
Qualification.Flight Crew : Multiengine
Qualification.Flight Crew : Commercial
Experience.Flight Crew.Total : 1250
Experience.Flight Crew.Last 90 Days : 100
Experience.Flight Crew.Type : 220
ASRS Report Number.Accession Number : 2026967

Events

Anomaly.Ground Event / Encounter : Weather / Turbulence
Anomaly.Ground Event / Encounter : Ground Strike - Aircraft
Detector.Person : Flight Crew
When Detected : Taxi
Result.Flight Crew : Took Evasive Action
Result.Aircraft : Aircraft Damaged

Assessments

Contributing Factors / Situations : Weather
Primary Problem : Weather

Narrative: 1

Sudden gust of (tail) wind lifted tail of tailwheel aircraft. Propeller struck sauciest surface and damaged propeller. Engine RPM approx 400-500 at time of impact, engine did not shut down. Engine was stopped after tail settled back to ground. No vibration noted before engine shutdown. Aircraft pulled to ramp area. No damage to any components besides propeller. No injury.

Synopsis

Pilot reported a propeller strike in his tail-wheel aircraft after a sudden gust of wind lifted the tail off the ground causing contact with surface. No injuries or damage to plane except for the propeller.

ACN: 2026333 *(21 of 50)*

Time / Day

Date : 202308

Place

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

Environment

Flight Conditions : VMC

Aircraft

Reference : X
ATC / Advisory.Tower : ZZZ
Aircraft Operator : Air Carrier
Make Model Name : B767 Undifferentiated or Other Model
Crew Size.Number Of Crew : 3
Operating Under FAR Part : Part 121
Flight Plan : IFR
Mission : Passenger
Flight Phase : Landing

Component

Aircraft Component : Speedbrake/Spoiler
Aircraft Reference : X

Person

Location Of Person.Aircraft : X
Location In Aircraft : Flight Deck
Reporter Organization : Air Carrier
Function.Flight Crew : Captain
Function.Flight Crew : Pilot Not Flying
Qualification.Flight Crew : Air Transport Pilot (ATP)
Qualification.Flight Crew : Instrument
Qualification.Flight Crew : Multiengine
Experience.Flight Crew.Last 90 Days : 196
Experience.Flight Crew.Type : 5441
ASRS Report Number.Accession Number : 2026333
Human Factors : Training / Qualification

Events

Anomaly.Aircraft Equipment Problem : Less Severe
Anomaly.Deviation / Discrepancy - Procedural : Published Material / Policy
Anomaly.Ground Event / Encounter : Loss Of Aircraft Control
Anomaly.Inflight Event / Encounter : Weather / Turbulence
Detector.Person : Flight Crew
When Detected.Other

Result.General : Maintenance Action
Result.Flight Crew : Overcame Equipment Problem

Assessments

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

Narrative: 1

We were assigned to land into ZZZ on Runway XXL. We had planned on a flaps 25, and autobrakes 3. The autospeed brakes were MELed and could only be used manually. The REF speeds were 137 kt., and with a 15-kt. bump, 152 kt. The flying pilot was on IOE, and was doing an excellent job with a gusty approach. He touched down in the proper zone with a 600 FPM descent rate. Both mains touched down and remained on the runway. The nose was a bit high. After both main gears were on the runway the flying pilot deployed the speed brakes, and reversers. At this point the nose came down faster than normal, it hit the runway and came back up. The nose went down again, hit the runway, and rose again. After this oscillation it returned to the runway and remained there. We vacated the runway and taxied to the gate. After engine shutdown, and parking checklist were completed, we discussed what had happened. During the debrief, the relief pilot pointed out that the flying pilot had maneuvered the speed brake lever at a much faster rate than was normal. He went on to say that with a quick application of spoilers, the nose was much more likely to drop quickly. We all agreed that this was the most likely cause of the event. We all agreed that a maintenance write-up was necessary. And a logbook entry was made.

Synopsis

B767 Captain reported the flying pilot on IOE landed the aircraft but the aircraft began to bounce, with the nose hitting the runway and rising several times. During a postflight debriefing it was determined the primary cause of the bounce was due to the flying pilot operating the speed brake faster than normal.

ACN: 2026087 *(22 of 50)*

Time / Day

Date : 202308
Local Time Of Day : 1201-1800

Place

Locale Reference.Airport : ZZZ.Airport
State Reference : US
Altitude.AGL.Single Value : 5

Environment

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

Aircraft

Reference : X
ATC / Advisory.UNICOM : ZZZ
Aircraft Operator : FBO
Make Model Name : Skyhawk 172/Cutlass 172
Crew Size.Number Of Crew : 1
Operating Under FAR Part : Part 91
Flight Plan : None
Mission : Training
Flight Phase : Landing
Airspace.Class G : ZZZ

Person

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 : Student
Experience.Flight Crew.Total : 51
ASRS Report Number.Accession Number : 2026087
Human Factors : Situational Awareness
Human Factors : Training / Qualification
Human Factors : Other / Unknown
Human Factors : Confusion

Events

Anomaly.Aircraft Equipment Problem : Critical
Anomaly.Deviation / Discrepancy - Procedural : Published Material / Policy
Anomaly.Ground Event / Encounter : Loss Of Aircraft Control
Anomaly.Ground Event / Encounter : Ground Strike - Aircraft
Anomaly.Inflight Event / Encounter : Weather / Turbulence
Anomaly.Inflight Event / Encounter : Loss Of Aircraft Control
Detector.Person : Flight Crew

When Detected : In-flight
Result.General : Maintenance Action
Result.Aircraft : Aircraft Damaged

Assessments

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

Narrative: 1

I was on a solo cross country trip from ZZZ1 to ZZZ. 10 miles out from ZZZ, I obtained the automated weather at ZZZ, and on approach into the downwind for Runway XX, I rechecked the weather again with an updated report of an almost direct headwind XXX@7G12. I prepared for landing with a gust by maintaining a higher than normal approach speed of approximately 80 kts and limited to only 20 degrees of flaps. I maintained visual glide path on final for Runway XX, but believe I may have pulled my power too quickly before touchdown, resulting in a hard initial landing and a subsequent porpoise. I failed to initiate a go-around and on the fourth bounce, the propeller struck the runway, the nose gear collapsed in some form, and the tire deflated.

Synopsis

Cessna 172 student pilot reported a hard landing at a non-towered airport during a solo training flight. The hard landing resulting in aircraft damage and nose gear collapse on the runway.

ACN: 2025353 *(23 of 50)*

Time / Day

Date : 202308
Local Time Of Day : 0601-1200

Place

Locale Reference.Airport : ZZZ.Airport
State Reference : US
Altitude.MSL.Single Value : 15000

Environment

Flight Conditions : IMC
Weather Elements / Visibility : Turbulence
Weather Elements / Visibility : Icing

Aircraft

Reference : X
ATC / Advisory.TRACON : ZZZ
Aircraft Operator : Air Carrier
Make Model Name : MD-11
Crew Size.Number Of Crew : 2
Operating Under FAR Part : Part 121
Mission : Cargo / Freight / Delivery
Flight Phase : Descent
Airspace.Class E : ZZZ

Component

Aircraft Component : Pitot-Static System
Aircraft Reference : X
Problem : Malfunctioning

Person : 1

Location Of Person.Aircraft : X
Location In Aircraft : Flight Deck
Reporter Organization : Air Carrier
Function.Flight Crew : Pilot Not Flying
Function.Flight Crew : First Officer
Qualification.Flight Crew : Multiengine
Qualification.Flight Crew : Air Transport Pilot (ATP)
Qualification.Flight Crew : Instrument
ASRS Report Number.Accession Number : 2025353
Human Factors : Workload
Human Factors : Training / Qualification
Human Factors : Human-Machine Interface
Human Factors : Troubleshooting
Human Factors : Confusion
Human Factors : Fatigue

Person : 2

Location Of Person.Aircraft : X
Location In Aircraft : Flight Deck
Reporter Organization : Air Carrier
Function.Flight Crew : Pilot Flying
Function.Flight Crew : Captain
Qualification.Flight Crew : Air Transport Pilot (ATP)
Qualification.Flight Crew : Instrument
Qualification.Flight Crew : Multiengine
ASRS Report Number.Accession Number : 2025035
Human Factors : Situational Awareness

Events

Anomaly.Aircraft Equipment Problem : Critical
Anomaly.Inflight Event / Encounter : Weather / Turbulence
Detector.Person : Flight Crew
When Detected : In-flight
Result.Flight Crew : Diverted
Result.Flight Crew : Overcame Equipment Problem

Assessments

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

Narrative: 1

On Descent into ZZZ on our 6 hour ZZZ1-ZZZ flight, Captain's airspeed became unreliable causing multiple systems to fail. Due to severe weather at ZZZ airport our arrival was changed by ATC while we were already on it descending through 15000 feet with intended ILS approach to runway XXR. During this change the Captain's Airspeed Indicator failure occurred. Captain flying, I (First Officer) executed QRH for Airspeed Unreliable. After failing to restore captain's airspeed indicator we diverted to ZZZ2 where the weather was VMC. Executed ILS approach in visual conditions to runway XXL, landed and taxiied to parking where maintenance determined that there was significant water in the Captains pitot-static system. On descent into ZZZ we were assigned the ZZZZZ RNAV arrival and rwy XXR. We setup and briefed an approach to that runway via that arrival. Captain entered ILS XXL in secondary flight plan. We had been tracking a major weather system that was moving West to East and that was forecast to be over ZZZ at the time of our arrival. We had briefed this weather prior to the flight and noted our alternate fuel plus 10000 lbs contingency gave us options even beyond our filed alternate of ZZZ2. Captain suggested ZZZ3, for example. Also, this plane had autoland -MEL'd., so we were even more prepared to divert if conditions required. During the last hour of flight we skirted severe turbulence and precipitation that was associated with this weather system, and at top of descent we planned for an anti-ice on descent through the weather, which was now painting large swaths of yellow and red, between us and the field, with some magenta on the weather radar display. During our initial descent we were advised of heavy precipitation on the arrival and asked if we needed a deviation. We declined at that time. Further into the descent (approximately 30 miles from the field and descending through 15000 feet, we observed large areas of red between us and the field. The controller suggested that previous aircraft had changed from the ZZZZZ or other arrivals to the ZZZZZ1 RNAV arrival. We asked for that and were assigned direct ZZZZZ2. We put ZZZZZ2 in the fix page and Captain turned towards it. We were advised we could divert as

far left of our track to ZZZZZ2 as was required to avoid weather, so Captain chose a heading to the North and East of the weather that kept us clear of the red areas on our radar display. As I was head down programming the arrival, the autopilot disconnected. I looked up and observed several amber Level 2 alerts on the system display. Select Elevator Feel Manual, etc. I had not completed the reroute, so prior to acting on the alerts I inserted direct ZZZZZ2 in the Control Display Panel. At that point I was not aware of the unreliable airspeed. I pulled out the QRH and began looking at flight control checklists when Captain said "Airspeed Unreliable." I turned to that checklist and began reading and acting on it. As we did that we entered some light to moderate turbulence. We were advised that the ZZZZZ1 arrival was not available to us. I [advised ATC] that we had some failed instruments. They queried if we were [requesting priority handling] and needed assistance. I said "negative, just advisory, we have a failed airspeed indicator." We were assigned 10000 feet, and we descended and maintained that altitude with Captain flying. I worked through the Airspeed Unreliable checklist, but omitted an important step that would have restored the captain's instrument display. The captain asked for me to ask for a left 360, present position to give us time to work through the checklist. The radio was quite busy, and I was unable to make this request before the captain looked left (East) towards ZZZ2 and observed VMC conditions to the horizon. Captain asked to proceed to ZZZ2, and advised ATC that we were required to maintain VFR conditions and requested direct to ZZZ2. There were many other planes in the ZZZ vicinity, and the weather was changing rapidly and unpredictably, with runway assignments changing as well. We turned towards ZZZ2, asked for direct ZZZZZ3 on the ILS XXL approach, executed the approach and landing, and taxiied to the gate. As the PM it was my duty to accurately execute the QRH. I omitted a critical step on page X of the QRH "CADC (unreliable side) ---- SELECT OTHER SIDE". This would have restored the captain's instruments and allowed us to proceed to our filed destination. I believe I followed the wrong thread, or I confused the Static Air Switch items on pages Y and X. I was task saturated with ATC, helping captain maintain a course and airspeed, and with reading the checklist. My own inexperience with the plane was a factor, as well. In the moment, the following were contributing factors (in no particular order): (1) the startle factor. I believe that the Captain thought I had disengaged the autopilot somehow. Because, very coincidentally, as I was reprogramming the arrival, his airspeed indication failed. (2) We were pre-determined to divert to ZZZ2 based on our knowledge of the incoming weather. (3) I am new to the airplane and my systems knowledge is not completely consolidated. (4) I was not assertive enough: I should have asserted that I take the controls so that the captain could review my QRH work. (5) The Airspeed Unreliable checklist is very long with many branches that require the pilot monitoring to effectively render the flying pilot as a "single pilot", man-handling a defective airplane with ambiguous instruments, in IMC, while the PM chases wordy and complex decision threads with many wordy notes and references to rarely used switches. (6) Our aircraft does not have AUX CADC switch(es) installed. So that portion of the checklist that refers to them is a time-consuming distraction. (7) Negative training in the sim: At my airline and at previous carriers that I recently flew at, we were never allowed to restore the inoperative system until we had executed the memory item: 4/10 degrees pitch up, 90% N1, etc. Often the exercise was terminated prior to successful restoration of the instruments, leaving me with an ambiguity as to how the situation would resolve. (8) Fatigue. We started work at XA:00 and this was 7 hours after that. (9) rapidly changing ATC instructions when we were already task saturated with maintaining the flight path and completing the QRH. (10) Weather. It appeared to be deteriorating from bad to worse. (11) This plane had autoland -MEL'd., so we were already prepared to divert if conditions required. Suggestions: (1) Captains should delegate flying to the FO when situation awareness and systems knowledge are critical to the outcome of the flight. (2) The QRH checklists with multiple threads / decision trees should be color coded. Each thread/ branch with its own color. Important steps should be in bold to separate them from the

various notes that are relevant, but not essential to the safe outcome of the flight. Diverting to ZZZ2 was an avoidable consequence, my inexperience, combined with the other major factors noted above resulted in the diversion. On the other hand, in the moment, we justifiably concluded that it was the safest course to proceed to our filed alternate, which was not far away. I did not advocate further troubleshooting for the reasons discussed above: (1) much traffic in ZZZ airspace, (2) deteriorating weather, (3) ambiguous system failure, (4) QRH directive to maintain VMC, (5) captain's very justifiable decision to divert to our previously briefed, nearby filed alternate. (1) Instrument failure due to water in the pitot static system. (2) Incorrect application/ execution of QRH resulting in avoidable diversion. (3) Overly complex QRH procedure requiring too much attention from crew to execute correctly and in a timely manner when faced with other primary attention requirements (flight path/ weather/ ATC).

Narrative: 2

On descent to 10,000 feet, passing approximately 16000 ft, the F/O (First Officer) (PM) was heads down inputting our second cleared arrival for ZZZ. The auto pilot clicked off. The Captain (Pilot Flying) attempted to re engage the auto pilot to no avail. It was then I noticed the IAS (airspeed comparison alert) and scanned my airspeed, the standby and the F/Os airspeeds, noticing that mine was 20-25 knots slower than the other two. The F/O was done with the arrival and looking up to get situated again (he's been on the line for about 5 months). I called for the Airspeed Unreliable checklist, which with everything going on he didn't hear right away. He opened his QRH and started to go into the checklist for some of the alerts that were being displayed. I ran the first 4 steps of the checklist (as displayed on the yoke) and then again got his attention and directed him to the proper checklist. That checklist is very convoluted just reading it in the crew room later, but with the arrival, weather, and inexperience in the plane, he missed some steps on the checklist. One of the notes in the checklist was to if possible find VMC. Looking east, towards our alternate of ZZZ2, it was VMC the whole way, so with the nasty weather still in ZZZ, we decided to proceed to the alternate. Somehow the Captain's pitot static system had water introduced into it which affected the system. I've flown through heavy rain plenty of times before and not had this happen. And we flew normally for the first 5 1/2 hours of the flight. It was a normal descent, but somehow under that descent angle, that heavy rain, and those winds, the water got into the Captain's system. I don't know that the water in the system could have been prevented, but the mis read checklist could have been prevented by me giving the plane to the F/O to fly, while I, with more experience in the plane, accomplished the checklist.

Synopsis

Air carrier flight crew reported unreliable airspeed indicator during descent in severe weather. Diverted to alternate airport in VMC and landed uneventfully.

ACN: 2025095 *(24 of 50)*

Time / Day

Date : 202307
Local Time Of Day : 0601-1200

Place

Locale Reference.ATC Facility : ZZZ.TRACON
State Reference : US
Relative Position.Distance.Nautical Miles : 20
Altitude.MSL.Single Value : 5300

Environment

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

Aircraft

Reference : X
ATC / Advisory.TRACON : ZZZ
Aircraft Operator : Air Carrier
Make Model Name : BAe 125 Series 800
Crew Size.Number Of Crew : 2
Operating Under FAR Part : Part 135
Flight Plan : IFR
Mission : Passenger
Flight Phase : Initial Approach
Route In Use : Direct
Airspace.Class E : ZZZ

Person

Location Of Person.Aircraft : X
Location In Aircraft : Flight Deck
Reporter Organization : Air Carrier
Function.Flight Crew : First Officer
Function.Flight Crew : Pilot Not Flying
Qualification.Flight Crew : Multiengine
Qualification.Flight Crew : Instrument
Qualification.Flight Crew : Commercial
Qualification.Flight Crew : Flight Instructor
Experience.Flight Crew.Total : 902.4
Experience.Flight Crew.Last 90 Days : 96.7
Experience.Flight Crew.Type : 96.7
ASRS Report Number.Accession Number : 2025095
Human Factors : Fatigue
Human Factors : Situational Awareness
Human Factors : Time Pressure
Human Factors : Communication Breakdown

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

Events

Anomaly.ATC Issue : All Types
Anomaly.Deviation - Altitude : Excursion From Assigned Altitude
Anomaly.Deviation / Discrepancy - Procedural : Published Material / Policy
Anomaly.Deviation / Discrepancy - Procedural : Clearance
Anomaly.Inflight Event / Encounter : Weather / Turbulence
Anomaly.Inflight Event / Encounter : CFTT / CFIT
Detector.Person : Air Traffic Control
When Detected : In-flight
Result.Flight Crew : FLC complied w / Automation / Advisory

Assessments

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

Narrative: 1

In the early morning (approximately XA:00) of the day in question, my Captain and I were dispatched for a medical flight. After taking the medical team to their destination(ZZZ1)and while waiting for the team to return, we were trying to get some rest at the FBO. We both got some rest and determined we were rested enough and felt safe to conduct the flight. The Captain did not receive the notice when the medical team was on the way. When I received a text message that they had arrived, we rushed to the plane. The Captain directed me to file a flight plan and, due to the lack of time and the fact that he had checked the weather, refused to discuss it with me at that time, despite the threat of thunderstorms. All of this led to a stressful cockpit. We departed to our destination (ZZZ) at approximately XJ:20. We encountered thunderstorms throughout the route, which we overcame by deviating off course. We started our descent with Center Control, who asked us to descend to an altitude of 12,000 on the way to the ZZZZZ waypoint(the first waypoint on the RNAV approach). Due to our close proximity to the waypoint, this caused a steep descent. Then the Center transferred us to the Approach Control. While we descended towards the RNAV approach, the Approach Controller cleared us for the approach and asked us to cross ZZZZZ waypoint at an altitude of 10,000, which caused an even steeper descent. After crossing ZZZZZ, we continued the descent according to the approach plate. At the ZZZZZ1 waypoint, we descended to 5,300. While we were descending through the approach plate, the controller advised us on a low altitude alert. The Captain advised the traffic controller that we are at the correct altitude according to the approach plate. We continued the approach and landed with no problems. At the brief after the flight, the Captain and I both raised our concerns, which included the environment of the cockpit and the fact that we were not alerted to the medical team's arrival with enough time to adequately prepare for the flight. As I am a new pilot on this jet and am still learning, I had a lot of trust in the Captain, but I wish he had communicated better at time of the event. I have learned that it is important to not just blindly follow directions of the traffic controller. For example, when directions will result in a steep descent, I should consider if we are safely and comfortably able to do so. I have also learned that a stressful cockpit leads to lack of good communication and possible safety concerns.

Synopsis

Hawker 800 pilot reported receiving an altitude alert from ATC during the approach although the flight crew reportedly was crossing the fix at the correct altitude.

ACN: 2024525 *(25 of 50)*

Time / Day

Date : 202308
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 : Windshear

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 : None
Mission : Training
Flight Phase : Landing
Airspace.Class D : ZZZ

Person

Location Of Person.Aircraft : X
Location In Aircraft : Flight Deck
Reporter Organization : FBO
Function.Flight Crew : Instructor
Function.Flight Crew : Pilot Flying
Qualification.Flight Crew : Multiengine
Qualification.Flight Crew : Instrument
Qualification.Flight Crew : Commercial
Qualification.Flight Crew : Flight Instructor
Experience.Flight Crew.Total : 1027
Experience.Flight Crew.Last 90 Days : 272
Experience.Flight Crew.Type : 540
ASRS Report Number.Accession Number : 2024525
Human Factors : Confusion
Human Factors : Situational Awareness
Human Factors : Training / Qualification
Human Factors : Communication Breakdown
Communication Breakdown.Party1 : Flight Crew
Communication Breakdown.Party2 : Flight Crew

Events

Anomaly.Aircraft Equipment Problem : Less Severe
Anomaly.Deviation / Discrepancy - Procedural : Published Material / Policy

Anomaly.Ground Event / Encounter : Loss Of Aircraft Control
Anomaly.Ground Event / Encounter : Ground Strike - Aircraft
Anomaly.Inflight Event / Encounter : Weather / Turbulence
Anomaly.Inflight Event / Encounter : Loss Of Aircraft Control
Detector.Person : Flight Crew
When Detected : In-flight
Result.Flight Crew : Took Evasive Action
Result.Aircraft : Aircraft Damaged

Assessments

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

Narrative: 1

Upon return from a cross-country instruction flight, the aircraft sustained a tail strike. The winds were reported as variable and had been a strong crosswind throughout the day. On final approach I instructed the student to be prepared for a go-around due to the strong variable wind conditions. Upon landing flare, the aircraft incurred a substantial loss in lift and I instructed the student to add power, but it was too late. Almost immediately, the aircraft sank and touched down as I quickly gave back pressure on the yoke to allow the mains to hit first and subsequently the tail strike occurred. The student then added the power I called for earlier, only for me to instruct the student to reduce power to idle, as all three wheels were already on the ground. Upon inspecting the aircraft, the tie down hook was missing, and I immediately called the Tower to let them know. The main contributing factor was the strong variable wind conditions along with a lack of power input when the sudden loss of lift occurred. Another possible contributing factor was that the nose strut appeared to be recently serviced as it was fully extended allowing for a more than normal tail low attitude.

Synopsis

C172 Flight Instructor reported a tail strike occurred due to a loss of lift during the landing flare, most likely due to the wind conditions. The Flight Instructor took control of the aircraft from the student and after getting all three wheels on the ground, inspected the aircraft and notified Tower.

ACN: 2023954 *(26 of 50)*

Time / Day

Date : 202308
Local Time Of Day : 1801-2400

Place

Locale Reference.ATC Facility : ZZZ.ARTCC
State Reference : US
Altitude.MSL.Single Value : 27400

Environment

Flight Conditions : VMC
Weather Elements / Visibility : Thunderstorm
Weather Elements / Visibility : Turbulence
Light : Night

Aircraft

Reference : X
ATC / Advisory.Center : ZZZ
Aircraft Operator : Air Carrier
Make Model Name : EMB ERJ 170/175 ER/LR
Crew Size.Number Of Crew : 2
Operating Under FAR Part : Part 121
Flight Plan : IFR
Mission : Passenger
Flight Phase : Climb
Airspace.Class A : ZZZ

Component

Aircraft Component : Air Data Computer
Aircraft Reference : X
Problem : Failed

Person : 1

Location Of Person.Aircraft : X
Location In Aircraft : Flight Deck
Reporter Organization : Air Carrier
Function.Flight Crew : Captain
Function.Flight Crew : Pilot Flying
Qualification.Flight Crew : Multiengine
Qualification.Flight Crew : Air Transport Pilot (ATP)
Qualification.Flight Crew : Instrument
ASRS Report Number.Accession Number : 2023954
Human Factors : Distraction
Human Factors : Situational Awareness
Human Factors : Time Pressure
Human Factors : Troubleshooting
Human Factors : Workload
Human Factors : Communication Breakdown

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

Person : 2

Location Of Person.Aircraft : X
Location In Aircraft : Flight Deck
Reporter Organization : Air Carrier
Function.Flight Crew : Pilot Not Flying
Function.Flight Crew : First Officer
Qualification.Flight Crew : Air Transport Pilot (ATP)
Qualification.Flight Crew : Instrument
Qualification.Flight Crew : Multiengine
ASRS Report Number.Accession Number : 2023956
Human Factors : Confusion
Human Factors : Situational Awareness
Human Factors : Time Pressure
Human Factors : Troubleshooting
Human Factors : Workload
Human Factors : Communication Breakdown
Communication Breakdown.Party1 : Flight Crew
Communication Breakdown.Party2 : ATC

Events

Anomaly.Aircraft Equipment Problem : Critical
Anomaly.Deviation - Altitude : Excursion From Assigned Altitude
Anomaly.Deviation / Discrepancy - Procedural : Clearance
Anomaly.Inflight Event / Encounter : Weather / Turbulence
Detector.Automation : Aircraft Other Automation
Detector.Person : Flight Crew
When Detected : In-flight
Result.Flight Crew : Overcame Equipment Problem
Result.Air Traffic Control : Provided Assistance

Assessments

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

Narrative: 1

During our climb to FL270 we received an ADS (Automatic Data System) 1 HTR fail caution message. We executed the XXXX model and ran the appropriate QRH procedure which had the PFD (Primary Flight Display) receive info from ADS 3. We continued on course and in the climb to our destination. After reaching FL350 (cruising altitude) we performed out TOC (top of climb) fuel check. About 5 min after, the Autopilot disconnect aural sounded, and the EICAS had 7 more caution messages (ADS 1 and 2 heater fail, Autopilot fail, reactive wind shear fail, shaker anticipated, elevator fault, rudder fault, spoiler fault) and 8 advisory messages (yd fail, spdbrk fail, pitch trim lo rate, appr 2 not avail, rnp at not avail, FD (Flight Director) fail and 2 others) populate. We tried to reengage the Autopilot shortly after, but it do not reengage. Since we were no longer RVSM compliant we requested a lower altitude. We received FL270 and descended down. I had my FO (First Officer) run

the QRH procedures to each message in the descent and after level off, but still none of the messages cleared. While I was trying to fly the aircraft, I tried to alleviate some of the pressure/duties my FO had by taking radios, talking to FA (Flight Attendant), and other short and small tasks. Due to this and light turbulence and scattered updrafts I had gotten 400 ft. from our assigned altitude. ATC knew of our situation and saw the deviations and gave a block altitude between FL270 and 280. As we approached our destination we hadn't completely calculated our landing distance and had descended down to FL210. Since we were not prepared to proceed inbound we executed right 360s to create time. My FO was running landing numbers while I was flying, and again I deviated from our assigned altitude due to multiple contributing factors. Again ATC gave us a block altitude from FL210-220. Once we had our landing distance and speeds calculated for landing we were notified that there was icing condition on the descent into our destination. We looked at the landing distance needed for icing conditions and realized that the landing distance required was over the longest runway at our destination. We notified Dispatch and ATC that we needed to divert, and proceeded direct to our alternate. Enroute we got back the FD and AT (Autothrottles) and engaged them (keeping a close eye for any unwarranted deviations). We proceeded and shot a visual approach to a successful landing. Cause - The cause of this event was the malfunction of multiple aircraft equipment which created a high workload for both the PF (pilot flying) and PM (pilot monitoring) as well as the weather (thunderstorms in the area, turbulence, etc.) and night/ IMC conditions. Suggestions - I would suggest with the conditions that were present asking ATC for a block altitude right away, so that the deviations wouldn't cause any other issues to arise.

Narrative: 2

During our climb to FL270 we received an ADS (Automatic Data System) 1 HTR fail caution message. We executed the XXXX model and ran the appropriate QRH procedure which had the PFD (Primary Flight Display) receive info from ADS 3. We continued on course and in the climb to our destination. After reaching FL350 (cruising altitude) we performed our TOC (top of climb) fuel check. About 5 min after, the Autopilot disconnect aural sounded, and the EICAS had 7 more caution messages (ADS 1 and 2 heater fail, Autopilot fail, reactive wind shear fail, shaker anticipated, elevator fault, rudder fault, spoiler fault) and 8 advisory messages (yd fail, spdbrk fail, pitch trim lo rate, appr 2 not avail, rnp at not avail, FD (Flight Director) fail and 2 others) populate. We tried to reengage the Autopilot shortly after, but it do not reengage. Since we were no longer RVSM compliant we requested a lower altitude. We received FL270 and descended down. I (the PM (pilot monitoring)) ran the QRH procedures to each message in the descent and after level off, but still none of the messages cleared. While the Captain (PF (pilot flying)) was trying to fly the aircraft, he tried to alleviate some of the pressure/duties I had by taking radios, talking to FA (flight attendant), and other short and small tasks. Due to this and light turbulence and scattered updrafts I had gotten 400 ft. from our assigned altitude. ATC knew of our situation and saw the deviations and gave a block altitude between FL270 and 280. As we approached our destination we hadn't completely calculated our landing distance and had descended down to FL210. Since we were not prepared to proceed inbound we executed right 360s to create time. I determined landing numbers and again we deviated from our assigned altitude (FL212) due to multiple contributing factors. Again ATC gave us a block altitude from FL210-220. Once we had our landing distance and speeds calculated for landing we were notified that there was icing conditions present on the descent into ZZZ. We looked at the landing distance needed for icing conditions and realized that the landing distance required was well over the longest runway at our destination. We notified Dispatch and ATC that we needed to divert, and proceeded direct to our alternate. Enroute we got back the F/D and A/T (Autothrottles) and engaged them (keeping a close eye for any unwarranted deviations). We proceeded and shot a visual approach to a successful landing. Cause - With all the messages that populated, we experienced high workloads and

work well as a team to mitigate stress and the aircraft caution/advisory messages. During the flight we encountered continuous light TURB. It was also night time and were unsure if we were in IMC or VMC since we had no outside references. There were also moderate to extreme areas of precipitation along our route and ATC helped us stay away from those areas. There were also isolated thunderstorms in the area. Suggestions - I would recommend how important the usage of the XXXX model is to help understand the given situation and high workloads. Also when a situation like this occurs, it would have helped to have asked for a block altitude to avoid altitude deviations.

Synopsis

EMB-175 flight crew reported a failure of the air data system affecting multiple aircraft systems during the climb in communication with ATC. The crew continued toward the destination but diverted to an alternate due to icing conditions at the destination, and landed safely.

ACN: 2023658 *(27 of 50)*

Time / Day

Date : 202308

Place

Altitude.MSL.Single Value : 39000

Aircraft

Reference : X
Aircraft Operator : Air Carrier
Make Model Name : B747 Undifferentiated or Other Model
Crew Size.Number Of Crew : 3
Operating Under FAR Part : Part 121
Flight Plan : IFR
Mission : Cargo / Freight / Delivery
Flight Phase : Cruise

Person

Location Of Person.Aircraft : X
Location In Aircraft : Flight Deck
Reporter Organization : Air Carrier
Function.Flight Crew : Captain
Function.Flight Crew : Pilot Flying
Qualification.Flight Crew : Air Transport Pilot (ATP)
Qualification.Flight Crew : Instrument
Qualification.Flight Crew : Multiengine
ASRS Report Number.Accession Number : 2023658
Human Factors : Workload
Human Factors : Troubleshooting
Human Factors : Time Pressure

Events

Anomaly.Flight Deck / Cabin / Aircraft Event : Smoke / Fire / Fumes / Odor
Anomaly.Deviation - Altitude : Excursion From Assigned Altitude
Anomaly.Deviation - Track / Heading : All Types
Anomaly.Deviation / Discrepancy - Procedural : Clearance
Anomaly.Inflight Event / Encounter : Weather / Turbulence
Detector.Person : Flight Crew
When Detected : In-flight
Result.Flight Crew : Overcame Equipment Problem

Assessments

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

Narrative: 1

At FL390 near waypoint ZZZ we encountered what looked like high cirrus clouds. Shortly after entering the IMC conditions we had a sharp acrid smell and suspected Volcanic ash as dispatch gave us a VA warning for FL 240 and below. We immediately made a left turn

15 miles off course and a climb to FL410. Once we reached FL 410 we were in the clear and the smell.went away. Notified ATC and dispatch of the encounter and wrote up airplane for VA encounter... Not much we could.have done differently in my opinion there was a large Thunderstorm tomorrow right that was.probably picking up the VA cloud and bringing it to altitude. We couldn't see the cloud/ ash to avoid it until we were in it. Again Dispatch did amazing job keeping us informed of the ash cloud that was well to our south and below us. We planned our descent to remain higher to avoid ash cloud on the arrival. Just can't predict mother nature.

Synopsis

Air carrier Captain reported a sharp acrid odor during cruise. After conferring with Dispatch the odor was determined to be caused by a volcanic ash event which was remedied by climbing to a higher altitude..

ACN: 2023353 *(28 of 50)*

Time / Day

Date : 202308
Local Time Of Day : 0001-0600

Place

Locale Reference.ATC Facility : ZZZ.TRACON
State Reference : US

Environment

Flight Conditions : Mixed
Weather Elements / Visibility : Cloudy
Weather Elements / Visibility : Rain
Light : Night

Aircraft

Reference : X
Aircraft Operator : FBO
Make Model Name : PA-44 Seminole/Turbo Seminole
Crew Size.Number Of Crew : 2
Mission : Training

Person

Location Of Person.Aircraft : X
Location In Aircraft : Flight Deck
Reporter Organization : FBO
Function.Flight Crew : Instructor
Qualification.Flight Crew : Flight Instructor
ASRS Report Number.Accession Number : 2023353
Human Factors : Situational Awareness
Human Factors : Training / Qualification

Events

Anomaly.Deviation - Altitude : Excursion From Assigned Altitude
Anomaly.Deviation / Discrepancy - Procedural : Published Material / Policy
Anomaly.Deviation / Discrepancy - Procedural : FAR
Anomaly.Inflight Event / Encounter : Weather / Turbulence
Anomaly.Inflight Event / Encounter : VFR In IMC
Anomaly.Inflight Event / Encounter : Loss Of Aircraft Control
Detector.Person : Flight Crew
Result.Flight Crew : Regained Aircraft Control

Assessments

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

Narrative: 1

Flight instructor and student were conducting a VFR cross-country flight from ZZZ to ZZZ1. While enroute to ZZZ1, approximately 19 NM miles north of ZZZ, the flight crew inadvertently entered IMC conditions. Upon entering IMC conditions, the student became disoriented resulting in orienting the aircraft in an unusual attitude causing a loss of altitude of 1500ft. The instructor recognized the unusual attitude and assumed control of the aircraft, recovering the aircraft from the unusual attitude. Upon completion of the recovery, the aircraft was no longer in IMC conditions. The flight crew continued the flight without further issues.

Synopsis

PA-44 Flight Instructor reported student entered an unusual attitude and lost aircraft control after entering IMC conditions during a night VFR cross country flight. Instructor regained control after descending 1500 feet and continued on to destination.

ACN: 2023141 *(29 of 50)*

Time / Day

Date : 202307
Local Time Of Day : 1201-1800

Place

Locale Reference.ATC Facility : ZZZ.ARTCC
State Reference : US
Relative Position.Distance.Nautical Miles : 20
Altitude.MSL.Single Value : 17500

Environment

Flight Conditions : Mixed
Weather Elements / Visibility : Icing
Weather Elements / Visibility : Turbulence
Light : Daylight

Aircraft

Reference : X
ATC / Advisory.Center : ZZZ
Aircraft Operator : Personal
Make Model Name : PC-12
Crew Size.Number Of Crew : 1
Operating Under FAR Part : Part 91
Flight Plan : IFR
Mission : Passenger
Flight Phase : Climb
Route In Use : Vectors
Airspace.Class E : ZZZ

Person

Location Of Person.Aircraft : X
Reporter Organization : Personal
Function.Flight Crew : Captain
Function.Flight Crew : Single Pilot
Qualification.Flight Crew : Air Transport Pilot (ATP)
Qualification.Flight Crew : Flight Instructor
Experience.Flight Crew.Total : 3200
Experience.Flight Crew.Last 90 Days : 45
Experience.Flight Crew.Type : 1750
ASRS Report Number.Accession Number : 2023141
Human Factors : Communication Breakdown
Human Factors : Time Pressure
Human Factors : Situational Awareness
Communication Breakdown.Party1 : Flight Crew
Communication Breakdown.Party2 : ATC

Events

Anomaly.ATC Issue : All Types
Anomaly.Deviation - Speed : All Types

Anomaly.Deviation / Discrepancy - Procedural : Published Material / Policy
Anomaly.Deviation / Discrepancy - Procedural : Clearance
Anomaly.Inflight Event / Encounter : Loss Of Aircraft Control
Anomaly.Inflight Event / Encounter : Weather / Turbulence
Anomaly.Inflight Event / Encounter : VFR In IMC
Detector.Automation : Aircraft Other Automation
Detector.Person : Flight Crew
When Detected : In-flight
Result.Flight Crew : Requested ATC Assistance / Clarification
Result.Flight Crew : Regained Aircraft Control
Result.Air Traffic Control : Issued New Clearance

Assessments

Contributing Factors / Situations : ATC Equipment / Nav Facility / Buildings
Contributing Factors / Situations : Human Factors
Contributing Factors / Situations : Weather
Primary Problem : Human Factors

Narrative: 1

I was the sole pilot of a Pilatus PC-12. The day started with a trip from ZZZ1 to ZZZ to drop off the owner of the aircraft and passengers. Shortly after dropping off the passengers, me and one other occupant loaded up to fly the aircraft back to ZZZ1. While I was taxiing to the runway, I heard a couple of other aircraft call for taxi behind us. A few other times that I have operated out of ZZZ, tower had asked if we could depart VFR so we would not delay all of the other jets on the departure. In order to not make all of the other planes wait for us to reach a certain point, I offered to do the same this time and get my clearance in the air. On the way in, there were scattered clouds, but no actual ceiling. I made a departure off of [runway] XX with a left turn into the downwind to head east. I initiated a climb to 17,500 MSL. I was advised by tower that I could change frequencies, so I switched to Center. I could hear other aircraft calling center, but I could not hear centers response. As I climbed, the clouds were building and building quickly. I found myself in a position that was going to take me IMC. I advised center, center responded with a squawk code and then I didn't hear anything else. I put in the code and never heard "radar contact". I tried for several minutes to reach center. I was socked in and went IMC before I was able to re-establish contact with Center. I had no room left to try and maintain VFR. I finally got a hold of Center and it was a different voice. He said that I was told they were too busy to give me clearance, to maintain VFR, and that my ride would have been smoother if I had not departed VFR. I told him that I was trying to not delay the aircraft behind me and that it was not for my benefit. He came back and gave me a clearance to proceed direct ZZZ2 and climb and maintain FL210 I believe initially. During the climb I was in some cumulonimbus clouds and the turbulence was extreme. The VSI was going from a 2700 ft. a minute climb to a 700 ft. a minute descent. We were also picking up moderate icing on the wing that covered the boots in a matter of seconds and spread down the top of the wing itself. I could not see the bottom of the wing, but I assume with the pitch that the turbulence was putting us into, there was icing on the bottom of the wing as well. I was flying at 145 KIAS which is about 10 knots over the minimum climb speed in icing conditions. I tried to bring the nose down a bit more to 150 KIAS to give more of a buffer but the climb rate stopped. I brought it back down and that is when the roller coaster began of up and down. At one point, the pitch up was so abrupt from an updraft that the stall warning went off and disconnected the autopilot. The indication went away as I pushed the nose down and the aircraft's pusher system did not activate nor did the plane actually stall. I was able to maintain control of the aircraft and

continue the climb out. All anti and de-icing equipment was on and was doing its best to keep the plane free of icing. After about 15 minutes we were able to climb out of and away from all of the precipitation and the ice started to clear from the wings. There was a slight vibration coming from the propeller as I suspected that ice had accumulated despite the prop heat being on. After several minutes of letting the heat run and being out of the precipitation, I saw a chunk of ice fly off of the prop over the front windshield. The vibrations stopped after that. The flight was then continued to ZZZ1 without any further issues. Knowing how the weather can be in the afternoon over the this area, I will never again depart from one of those airports VFR in hopes of getting a clearance after departure. I will stick to the original plan and fly the IFR clearance that I was given on the ground. I will also do a better job at looking at the weather, knowing that despite being on the ground for a short time, and just having came from that direction, that things change quickly in that region.

Synopsis

PC12 pilot reported a loss of aircraft control during climb after entering cumulonimbus clouds and IMC conditions prior to receiving IFR clearance. Pilot encountered extreme turbulence and moderate icing conditions after obtaining IFR clearance and continued to destination after exiting the weather.

ACN: 2022985 *(30 of 50)*

Time / Day

Date : 202307
Local Time Of Day : 0601-1200

Place

Locale Reference.Airport : PIT.Airport
State Reference : PA

Aircraft

Reference : X
ATC / Advisory.TRACON : PIT
Aircraft Operator : Air Carrier
Make Model Name : Commercial Fixed Wing
Crew Size.Number Of Crew : 2
Operating Under FAR Part : Part 121
Flight Plan : IFR
Nav In Use : GPS
Nav In Use : FMS Or FMC
Flight Phase : Initial Approach
Airspace.Class B : PIT

Component : 1

Aircraft Component : Navigational Equipment and Processing
Aircraft Reference : X
Problem : Malfunctioning

Component : 2

Aircraft Component : PFD
Aircraft Reference : X
Problem : Malfunctioning

Person : 1

Location Of Person.Aircraft : X
Location In Aircraft : Flight Deck
Reporter Organization : Air Carrier
Function.Flight Crew : Pilot Flying
Qualification.Flight Crew : Multiengine
Qualification.Flight Crew : Instrument
Qualification.Flight Crew : Air Transport Pilot (ATP)
ASRS Report Number.Accession Number : 2022985
Human Factors : Time Pressure
Human Factors : Workload
Human Factors : Situational Awareness

Person : 2

Location Of Person.Aircraft : X
Location In Aircraft : Flight Deck
Reporter Organization : Air Carrier

Function.Flight Crew : Pilot Not Flying
Qualification.Flight Crew : Air Transport Pilot (ATP)
Qualification.Flight Crew : Instrument
Qualification.Flight Crew : Multiengine
Experience.Flight Crew.Total : 6500
Experience.Flight Crew.Last 90 Days : 90
ASRS Report Number.Accession Number : 2022400
Human Factors : Time Pressure
Human Factors : Workload
Human Factors : Situational Awareness

Events

Anomaly.Aircraft Equipment Problem : Less Severe
Anomaly.Deviation - Track / Heading : All Types
Anomaly.Deviation / Discrepancy - Procedural : Published Material / Policy
Anomaly.Deviation / Discrepancy - Procedural : Clearance
Anomaly.Inflight Event / Encounter : Weather / Turbulence
Detector.Automation : Air Traffic Control
Detector.Automation : Aircraft Other Automation
Detector.Person : Air Traffic Control
Detector.Person : Flight Crew
When Detected : In-flight
Result.General : Maintenance Action
Result.Flight Crew : Requested ATC Assistance / Clarification
Result.Flight Crew : Overcame Equipment Problem
Result.Air Traffic Control : Provided Assistance

Assessments

Contributing Factors / Situations : Aircraft
Contributing Factors / Situations : ATC Equipment / Nav Facility / Buildings
Contributing Factors / Situations : Software and Automation
Contributing Factors / Situations : Environment - Non Weather Related
Primary Problem : Ambiguous

Narrative: 1

PIT approach control cleared us to WYLER in order to intercept the localizer in expectation for the ILS 32 at PIT. The weather was a broken ceiling so the ability to visually navigate to the field visually was impaired. We were proceeding direct to WYLER, descending from approx 10,000 to 6,000. Somewhere outside of WYLER, best guess is within 10 NM, the aircraft symbol began to drift off course and the autopilot began to attempt to correct back to course (LNAV active and center autopilot active). The RNP was 1.0 at the time and the ANP started to vary, turning amber as the number went from approx 2.0 to 4.2. We ensured that the aircraft leveled at 6,000 and the Controller queried our ground track. We promptly notified them that our navigation system was no longer reliable at that point and required vectors to localizer final for the ILS 32. Approach control gave us vectors back around to localizer final inside of WYLER, where the localizer was successfully intercepted, cleared the ILS 32 and performed an uneventful autoland. During the vectors the ANP began to return green and displayed a value of 0.01-0.03 through landing. Upon shutdown and the aircraft secured, a mechanic came on board asked us if we experienced a map shift. He informed us that he has seen this similar write up from other crews, both aircraft type X and aircraft type Y, with approximately 4-5 occurrences from his memory in the last month coming in for the ILS 32 via proceeding through WYLER. This is concerning

because it is a repeating event that both aircraft type X and aircraft type Y are experiencing that prevents the crew from navigating accurately when transiting via the narrative above.

Narrative: 2

On an intercept heading for the ILS 32 into PIT outside of WYLER four amber flags (RNP, ANP, LOC and GPS) appeared and we started to veer off course. The flags went back and forth between green and amber several times while the aircraft chased the proper course and went off course. ATC finally questioned us and we gave a quick response while taking vectors back to try again. They then vectored us inside of WYLER where we intercepted final and made an uneventful auto landing. My real concern was when we asked to talk to maintenance after shutdown he immediately asked if we had a map shift at WYLER. According to him this was the fourth or fifth such occurrence in about the last month.

Synopsis

Air carrier flight crew reported approximately 10 NM from the fix WYLER in the vicinity of PIT, the aircraft began to experience navigational errors. The pilots received RNP, ANP, LOC and GPS flags.

ACN: 2022725 *(31 of 50)*

Time / Day

Date : 202307
Local Time Of Day : 1201-1800

Place

Locale Reference.ATC Facility : ZZZ.ARTCC
State Reference : US
Altitude.MSL.Single Value : 30000

Environment

Flight Conditions : VMC

Aircraft

Reference : X
ATC / Advisory.Center : ZZZ
Aircraft Operator : Air Taxi
Make Model Name : Regional Jet CL65, Undifferentiated or Other Model
Crew Size.Number Of Crew : 2
Operating Under FAR Part : Part 135
Mission : Passenger
Flight Phase : Cruise
Airspace.Class A : ZZZ

Component

Aircraft Component : Cockpit Window
Aircraft Reference : X
Problem : Failed

Person

Location Of Person.Aircraft : X
Location In Aircraft : Flight Deck
Reporter Organization : Air Taxi
Function.Flight Crew : Captain
Function.Flight Crew : Pilot Not Flying
Qualification.Flight Crew : Instrument
Qualification.Flight Crew : Air Transport Pilot (ATP)
Qualification.Flight Crew : Multiengine
ASRS Report Number.Accession Number : 2022725

Events

Anomaly.Aircraft Equipment Problem : Critical
Anomaly.Deviation / Discrepancy - Procedural : Published Material / Policy
Anomaly.Inflight Event / Encounter : Weather / Turbulence
Detector.Person : Flight Crew
When Detected : In-flight
Result.Flight Crew : Landed in Emergency Condition
Result.Flight Crew : Diverted

Result.Air Traffic Control : Issued New Clearance
Result.Aircraft : Aircraft Damaged

Assessments

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

Narrative: 1

En route at FL300, cCptain's forward cockpit window shattered. While cabin pressure remained normal, an immediate descent was requested as a precaution. "Request an immediate descent for a broken window." The response from the Center high-altitude sector controller: immediate descent clearance to FL240, soon revised to FL180. An expedited descent was performed with idle power and speed brakes fully extended; at normal descent speed (rather than increasing speed to Vmo / Mmo) due to the uncertain condition of the shattered window. As cabin pressure was holding, an "Emergency" was not declared to the Center high-sector controller. However, after switching frequency to the low-altitude sector controller, a request to for more information accompanied a further descent clearance to 16,000 ft. As the aircraft is not equipped with ACARS or message-capable data link, company notification was attempted by e-mail. This notification attempt was later revealed to be unsuccessful due to an error in the company phone contacts file. After switching radio frequencies, further incremental descents from the Center low-altitude sector controller were also received without delay. Weather avoidance during the expedited descent was challenging with many CBs (Cumulonimbus) in the area. Once level at 8,000 ft., and with cabin pressure remaining normal, continuing to destination at low altitude/airspeed was briefly considered; but rejected due to condition of the windscreen, convective weather in the area, and excessive (1+15) time en route. After consulting the Jeppesen FD Pro Low Altitude chart and the FMS, a diversion to ZZZ was requested. (FMS distance 56 NM, and the nearest airport having an FBO and scheduled commercial airline service). The decision to divert and land without undue delay was later validated by post-flight inspection that revealed both outer and inner window panes shattered. The response from Center to our request to divert was gratifying, with an immediate clearance direct to the airport. PF (Pilot Flying) continued to do an admirable job of avoiding CBs in the area while heading for the airport; once clear of weather, PM (Pilot Monitoring) left the cockpit to brief the passengers. After returning to the cockpit, PM began preparing the aircraft for landing. A second company e-mail notification of the diversion was attempted, but discontinued after seeing that the first e-mail had not been delivered due to the incorrect e-mail contact address. After switching radio frequencies to approach, further descents to 3,000 ft., and then 2,000 ft. were received. At 2,000 ft. cabin differential pressure abruptly decreased to zero. With intent to avoid distracting PF from flying the aircraft, PM accomplished a silent review of the "Descent Checklist." With preparations for landing complete, sufficient time remained for a radio call to the FBO notifying them of our impending arrival and requesting services. An ILS approach was flown to an uneventful landing and taxi to the FBO. Upon deplaning, many pax expressed their appreciation for a safe arrival. A phone call to the company revealed that both dispatch and customer service were aware of the diversion. A second phone call to the approach control supervisor (phone number received from Ground Control after landing) revealed they had already obtained from Center the required information. Captain then joined the passengers in the FBO to answer questions. Company employee (traveling aboard the flight as a non-revenue passenger) rendered valuable assistance in communications between customer service and passengers. A maintenance ferry flight was briefly considered until local mechanics conducted an inspection of the shattered window. After their determination that

both outer and inner panes were shattered, a maintenance ferry flight was no longer considered possible, and crew prepared to leave the aircraft. Possible lightning strike with a loud "BANG" followed immediately by a zipper-like "Brrrrrp" as the window shattered; scorch marks observed after. That said, a post-flight inspection did not show a lightning exit point; thus cause unknown.

Synopsis

CRJ flight crew reported failure of cockpit window in cruise flight. Flight diverted and landed uneventfully.

ACN: 2022686 *(32 of 50)*

Time / Day

Date : 202307

Place

Locale Reference.Airport : N90.Airport
State Reference : NY
Altitude.MSL.Single Value : 8500

Environment

Flight Conditions : IMC

Aircraft : 1

Reference : X
ATC / Advisory.TRACON : N90
Aircraft Operator : Air Carrier
Make Model Name : Commercial Fixed Wing
Crew Size.Number Of Crew : 2
Operating Under FAR Part : Part 121
Flight Plan : IFR
Mission : Passenger
Flight Phase : Descent
Route In Use.STAR : PHLBO4
Airspace.Class B : EWR

Aircraft : 2

Reference : Y
ATC / Advisory.TRACON : N90
Make Model Name : Any Unknown or Unlisted Aircraft Manufacturer
Airspace.Class B : EWR

Person

Location Of Person.Aircraft : X
Location In Aircraft : Flight Deck
Reporter Organization : Air Carrier
Function.Flight Crew : Captain
Function.Flight Crew : Pilot Flying
Experience.Flight Crew.Total : 815
Experience.Flight Crew.Last 90 Days : 219
Experience.Flight Crew.Type : 815
ASRS Report Number.Accession Number : 2022686
Human Factors : Communication Breakdown
Human Factors : Situational Awareness
Communication Breakdown.Party1 : Flight Crew
Communication Breakdown.Party2 : ATC

Events

Anomaly.Conflict : NMAC
Anomaly.Deviation - Altitude : Undershoot

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

Assessments

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

Narrative: 1

Descending into EWR in and out of the clouds on PHILBO4 just prior to DYLIN we received a TCAS traffic warning followed by a TCAS RA, I disconnected AP and smoothly leveled acft. I saw the GA aircraft pass just off our left... TCAS IS WHAT SAVED US, minimal acknowledgement when we reported the incident to ATC... continued the descent and landed in EWR.

Synopsis

Captain reported a near miss with a general aviation aircraft while under air traffic control in IMC conditions, descending on a published arrival procedure. The Captain responded to the TCAS RA, reported the TCAS event to ATC and continued the descent to a landing.

ACN: 2022585 *(33 of 50)*

Time / Day

Date : 202307
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 : Windshear
Weather Elements / Visibility.Visibility : 10
Light : Daylight
Ceiling.Single Value : 12000

Aircraft

Reference : X
ATC / Advisory.CTAF : ZZZ
Aircraft Operator : Personal
Make Model Name : PA-32 Cherokee Six/Lance/Saratoga/6X
Crew Size.Number Of Crew : 2
Operating Under FAR Part : Part 91
Flight Plan : None
Mission : Training
Flight Phase : Landing

Person

Location Of Person.Aircraft : X
Location In Aircraft : Flight Deck
Reporter Organization : Personal
Function.Flight Crew : Instructor
Function.Flight Crew : Pilot Not Flying
Qualification.Flight Crew : Remote Pilot (UAS)
Qualification.Flight Crew : Instrument
Qualification.Flight Crew : Multiengine
Qualification.Flight Crew : Commercial
Qualification.Flight Crew : Flight Instructor
Qualification.Flight Crew : Glider
Qualification.Flight Crew : Sea
Experience.Flight Crew.Total : 2000
Experience.Flight Crew.Last 90 Days : 30
Experience.Flight Crew.Type : 1950
ASRS Report Number.Accession Number : 2022585
Human Factors : Training / Qualification
Human Factors : Situational Awareness

Events

Anomaly.Deviation / Discrepancy - Procedural : Published Material / Policy
Anomaly.Ground Excursion : Runway
Anomaly.Ground Event / Encounter : Weather / Turbulence
Anomaly.Ground Event / Encounter : Loss Of Aircraft Control
Anomaly.Inflight Event / Encounter : Weather / Turbulence
Anomaly.Inflight Event / Encounter : Unstabilized Approach
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

During a routine private pilot flight training mission, which involves transitioning to new aircraft during training, a runway excursion occurred at touchdown. The instructor and student pilot were practicing pattern entry and landings at ZZZ in order to take advantage of longer and wider runways, with less crowded conditions, early morning. The wind conditions were 45 degree left crosswind component of 5 to 7 knots, with gusts to 10 knots. Several landings were made during the instruction period prior to the incident being reported. On the 3rd or 4th landing, variable wind and wind gusts caused the student to over and under control the aircraft during the approach to landing and round out. The aircraft touched down to the left of the runway centerline, and while weathervaning into the crosswind. Upon touchdown, the aircraft veered in the direction of the wind, and the left main gear wheel left the pavement for a few seconds at landing speed. The aircraft wing traversed several runway edge lights without making any contact. The student and instructor reacted to bring the aircraft left wheel back onto the pavement and added normal braking to bring the aircraft to a normal rolling position before exiting to taxiway. The aircraft was taken to an adjacent ramp area for an examination of the left wing, aileron, flap, main gear and fuselage. No impact damage was found, and there weren't even any grass or grass stains discovered on the plane or tires. The instructor attributes the episode to improper pattern airspeed and altitude, higher than recommended final approach airspeed, wind conditions exceeding the student pilot capability, and inadequate supervision by the CFI onboard during the transition training.

Synopsis

PA-32 instructor with student reported a runway excursion after landing at a non-towered airport requiring the instructor to take over the controls to bring the aircraft back to the runway pavement. Instructor stated the student was new to the PA-32 which along with variable winds contributed to the momentary runway excursion.

ACN: 2022550 *(34 of 50)*

Time / Day

Date : 202307
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 : 12000

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 : None
Mission : Personal
Flight Phase : Landing
Route In Use : None

Person

Location Of Person.Aircraft : X
Location In Aircraft : Flight Deck
Reporter Organization : Personal
Function.Flight Crew : Pilot Flying
Function.Flight Crew : Single Pilot
Qualification.Flight Crew : Private
Qualification.Flight Crew : Instrument
Qualification.Other
Experience.Flight Crew.Total : 1300
Experience.Flight Crew.Last 90 Days : 10
Experience.Flight Crew.Type : 355
ASRS Report Number.Accession Number : 2022550
Human Factors : Workload
Human Factors : Time Pressure

Events

Anomaly.Aircraft Equipment Problem : Less Severe
Anomaly.Deviation / Discrepancy - Procedural : FAR
Anomaly.Deviation / Discrepancy - Procedural : Published Material / Policy
Anomaly.Ground Excursion : Runway
Anomaly.Ground Event / Encounter : Ground Strike - Aircraft
Anomaly.Inflight Event / Encounter : Weather / Turbulence

Anomaly.Inflight Event / Encounter : Loss Of Aircraft Control
Detector.Person : Flight Crew
When Detected.Other
Result.General : Maintenance Action
Result.General : Flight Cancelled / Delayed
Result.Aircraft : Aircraft Damaged

Assessments

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

Narrative: 1

On the morning of the incident, I was conducting takeoffs and landings at my home airport before departing on a cross country trip. The first landing was uneventful. On the rollout of the second landing, just as the tail was coming down, a gust of wind lifted the right wing. I didn't have enough rudder authority to maintain directional control, and the airplane went through the drainage ditch parallel to the Runway, resulting in a prop strike and bent cowling. As I was gathering documents for the insurance company, I discovered that my BasicMed Medical Self-Assessment Course had expired.

Synopsis

GA pilot reported a loss of directional control during landing due to a gust of wind which resulted in a runway excursion and minor damage to the aircraft.

ACN: 2021782 *(35 of 50)*

Time / Day

Date : 202307
Local Time Of Day : 1801-2400

Place

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

Environment

Flight Conditions : Marginal
Weather Elements / Visibility : Rain
Weather Elements / Visibility : Windshear
Light : Night

Aircraft

Reference : X
ATC / Advisory.Tower : ZZZ
Aircraft Operator : Air Carrier
Make Model Name : Commercial Fixed Wing
Operating Under FAR Part : Part 121
Flight Plan : IFR
Mission : Passenger
Flight Phase : Landing

Person : 1

Location Of Person.Aircraft : X
Location In Aircraft : Flight Deck
Reporter Organization : Air Carrier
Function.Flight Crew : Pilot Not Flying
Function.Flight Crew : First Officer
Qualification.Flight Crew : Air Transport Pilot (ATP)
Qualification.Flight Crew : Instrument
Qualification.Flight Crew : Multiengine
ASRS Report Number.Accession Number : 2021782
Human Factors : Situational Awareness

Person : 2

Location Of Person.Aircraft : X
Location In Aircraft : Flight Deck
Reporter Organization : Air Carrier
Function.Flight Crew : Pilot Flying
Function.Flight Crew : Captain
Qualification.Flight Crew : Air Transport Pilot (ATP)
Qualification.Flight Crew : Instrument
Qualification.Flight Crew : Multiengine
ASRS Report Number.Accession Number : 2021785
Human Factors : Situational Awareness

Events

Anomaly.Deviation / Discrepancy - Procedural : Published Material / Policy
Anomaly.Ground Excursion : Runway
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 : Weather
Primary Problem : Weather

Narrative: 1

On our final approach we encounter strong winds and rain. During the rollout the Captain went close to the runway edge. The landing was on center line but due to gust we went to the left side of the runway. The Captain correct and before the 80 knot callout we we're back in the centerline. During the post flight walk around I found grass on the left main landing gear. [There] was no obvious damage on the plane just grass on the landing gear. Cause: Weather in the vicinity of the airport. Strong winds and rain. Due to Gust wind we lost momentarily directional control. Suggestions: Ask for delay vectors as we saw the runway if we have a better indication of the changing weather further out it would have been better to have delayed vectors or hold.

Narrative: 2

Upon approach gust front hit aircraft from surrounding weather but stability was regained and landing Normal with sudden strong gust a few hundred feet after touchdown after touchdown pushing the plane toward the edge. Left main departed runway into grass for a moment before correction action took us back to centerline reversers deployed and exited runway at second to last exit. Rain had started to increase at 400-500 feet on final but runway was visible the entire time. Did not think we departed runway until post flight seeing grass on the left main the gear well and the underside of the wing. We examined and saw no obvious damage and later confirmed with airport ops that we had indeed exited the runway but there was no damage to runway or lights. I wrote up the plane as such and called Maintenance and Dispatcher after we got to hotel Cause: Weather with gust front approaching field and sudden increase of gust to 35 or so from tower report after landing. Gust caused a momentary loss of directional control. ATIS P K reported as calm winds and weather/lightning distant west moving east. R came out on final and said winds but no gust factor at that time. Suggestions: Possible ask for more delay vectors as we saw the runway. If we had a better indication of the changing weather further out, it would have been better to have delay vectors or hold.

Synopsis

Air carrier flight crew reported momentary loss of aircraft control during landing caused by wind gusts. The aircraft moved to the left with the left main gear touching the grass off the runway before the Captain was able correct and bring the aircraft back to centerline.

ACN: 2021625 *(36 of 50)*

Time / Day

Date : 202307
Local Time Of Day : 1201-1800

Place

Locale Reference.Airport : ZZZ.Airport
State Reference : US
Altitude.MSL.Single Value : 8600

Environment

Weather Elements / Visibility : Turbulence
Weather Elements / Visibility : Windshear
Light : Daylight

Aircraft

Reference : X
ATC / Advisory.Tower : ZZZ
Aircraft Operator : Air Taxi
Make Model Name : Citation Latitude (C680A)
Crew Size.Number Of Crew : 2
Operating Under FAR Part : Part 135
Flight Plan : IFR
Flight Phase : Final Approach
Route In Use : Visual Approach

Person : 1

Location Of Person.Aircraft : X
Location In Aircraft : Flight Deck
Reporter Organization : Air Taxi
Function.Flight Crew : Pilot Flying
Function.Flight Crew : First Officer
Qualification.Flight Crew : Multiengine
Qualification.Flight Crew : Air Transport Pilot (ATP)
Qualification.Flight Crew : Instrument
ASRS Report Number.Accession Number : 2021625
Human Factors : Workload
Human Factors : Training / Qualification
Human Factors : Communication Breakdown
Human Factors : Situational Awareness
Communication Breakdown.Party1 : Flight Crew
Communication Breakdown.Party2 : ATC

Person : 2

Location Of Person.Aircraft : X
Location In Aircraft : Flight Deck
Reporter Organization : Air Taxi
Function.Flight Crew : Check Pilot
Function.Flight Crew : Pilot Not Flying
Function.Flight Crew : Captain

ASRS Report Number.Accession Number : 2021629
Human Factors : Situational Awareness
Human Factors : Training / Qualification
Human Factors : Workload
Human Factors : Communication Breakdown
Communication Breakdown.Party1 : Flight Crew
Communication Breakdown.Party2 : ATC

Events

Anomaly.Deviation - Altitude : Overshoot
Anomaly.Deviation / Discrepancy - Procedural : Clearance
Anomaly.Ground Event / Encounter : Weather / Turbulence
Anomaly.Inflight Event / Encounter : Weather / Turbulence
Anomaly.Inflight Event / Encounter : Loss Of Aircraft Control
Anomaly.Inflight Event / Encounter : Unstabilized Approach
Detector.Person : Flight Crew
When Detected : In-flight
Result.Flight Crew : Executed Go Around / Missed Approach
Result.Air Traffic Control : Issued New Clearance

Assessments

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

Narrative: 1

On a passenger flight form ZZZ to ZZZ1 with stormy weather at both departure and arrival airports. I am on my second IOE tour with 6 landings. Departure took place with no significate events. On arrival into ZZZ1 storms had started popping up in the area. These storms had been forecast for XB:00 local time not XA:00. We flew the arrival without event and had the onboard radar on. We were able to avoid all cells on the arrival. Cleared for the visual approach of [Runway] XXL into ZZZ1 and made the turn over the reservoir. We loaded the RNAV XXL as a back up and proceeded in bound. Just prior to passing the FAF there was a report of windshear. After passing the FAF the wind was reported from the tower to be 265 [degrees] at 6 gusting 35. We executed a go-around as it was outside the crosswind limit for the Citation Latitude. As we began the go-around tower advised us to fly runway heading and climb to 8,000 ft. MSL. Turbulence quickly went from lite to severe and my Pilot In Command (PIC) requested 30 degrees left immediately as we were tracking straight toward virga rain that looked to be developing into a downdraft. Windshear alert did not go off but all flight controls suggested that we were in a downdraft and then an updraft. Airspeed and altitude were becoming difficult to control, much less wings level. Airspeed was no more then 180 knots at the start of the severe turbulence with the worst showing 140 knots at full throttle and a trend meter showing minus 40 knots. Vertical speed was barely holding 500 feet per minute. ATC advised us that we were indicating 8,600 ft. MSL shortly after our request to turn 30 degrees left. We attempted to return to 8,000 ft. and advised ATC of the severe turbulence. They requested that we maintain 8,000 ft. in able. As we flew east away from the virga conditions improved drastically and was able to resume level flight at 8,000 ft. The event lasted less then a minute in total. At this point my PIC who was Pilot Monitoring (PM) switch to COMM 2 to check the weather at ZZZ1 as well as ZZZ2 and I handled COMM 1 and coordinated with ATC to fly a modified holding pattern. The PIC returned to COMM 1 and updated me on the

wind which had switched to a head wind for Runway XXL but was still a 6 knot gusting 35 knots. At this point we decided it prudent to have him fly the approach and I assume Pilot Monitoring duties. He flew the approach again with losses and gains of 20 knots and moderate turbulence to a landing.

Narrative: 2

After uneventful en-route section of passenger flight from ZZZ to ZZZ1 we started down on arrival and ride deteriorated due to scattered storms in the area. I was acting at a Pilot In Command (PIC)/Check Airman Pilot crosswind limit. As we began the climb tower advised us to fly runway heading and maintain 8,000 ft. Turbulence quickly went from lite to severe and my and it was obvious Pilot Flying (PF) was struggling with aircraft control. I requested 30 degrees left immediately as we were tracking straight toward virga rain that looked to be developing into a downdraft. Windshear alert did not go off but aircraft behavior suggested that we were in a downdraft and then an updraft. Airspeed was approximately 180 knots at the start of the severe turbulence then deteriorating to 140 knots at full throttle and a negative speed trend vector. Vertical speed was struggling at 500 feet per minute climb. ATC advised us that we were indicating 8,600 ft. MSL shortly after our request to turn 30 degrees left. We attempted to return to 8,000 ft. and advised ATC of the severe turbulence. They requested that we maintain 8,000 ft. if able. As we flew east away from the virga conditions improved drastically and were Monitoring (PM) from the right seat. Besides the turbulence the arrival was uneventful. We got cleared for the visual approach to [Runway] XXL into ZZZ1 and were handed off to tower. Almost immediately based on the chatter on tower frequency it became evident the conditions at the field deteriorated quickly. Minute wind report was a wide range of direction swing (I recall 60 degree variation but close to direct crosswind form our right at the moment of report) and gusting to 39 kts. We immediately executed a go-around as it was well outside our able to resume level flight at 8,000 ft. The event lasted less than a minute in total. Once level and after completing appropriate checklist we requested updated wind info which now turned more toward a head wind for Runway XXL but was still a 6 knot gusting 35 knots. We were computed landing data and found it within safe parameters for another attempt. At this point we decided it was prudent to exchange PF/PM duties. I flew the approach again with losses and gains of 20 knots and moderate turbulence to a landing. Suggestions: Tower frequency was very busy at the moment. Having more leeway/ability to request an earlier left turn on the go-around might have prevented us from entering the area of severe turbulence. We didn't have an opportunity to get a word in earlier.

Synopsis

Cessna- 680A flight crew reported severe turbulence, loss of airspeed, and wind shear on a training flight while executing a go-around. The Captain took over the aircraft from the student after the go-around and then landed safely.

ACN: 2021609 *(37 of 50)*

Time / Day

Date : 202307
Local Time Of Day : 0001-0600

Place

Locale Reference.Airport : SDF.Airport
State Reference : KY

Aircraft : 1

Reference : X
ATC / Advisory.Tower : SDF
Aircraft Operator : Air Carrier
Make Model Name : Widebody, Low Wing, 2 Turbojet Eng
Crew Size.Number Of Crew : 2
Operating Under FAR Part : Part 121
Flight Plan : IFR
Mission : Cargo / Freight / Delivery
Nav In Use : FMS Or FMC
Flight Phase : Landing
Airspace.Class B : SDF

Aircraft : 2

Reference : Y
ATC / Advisory.Tower : SDF
Aircraft Operator : Air Carrier
Make Model Name : Commercial Fixed Wing
Operating Under FAR Part : Part 121
Flight Plan : IFR
Flight Phase : Landing

Person

Location Of Person.Aircraft : X
Location In Aircraft : Flight Deck
Reporter Organization : Air Carrier
Function.Flight Crew : Captain
Function.Flight Crew : Pilot Not Flying
Qualification.Flight Crew : Air Transport Pilot (ATP)
Qualification.Flight Crew : Instrument
Qualification.Flight Crew : Multiengine
Experience.Flight Crew.Total : 17000
Experience.Flight Crew.Last 90 Days : 50
ASRS Report Number.Accession Number : 2021609
Human Factors : Situational Awareness
Analyst Callback : Attempted

Events

Anomaly.ATC Issue : All Types
Anomaly.Deviation / Discrepancy - Procedural : Published Material / Policy
Anomaly.Inflight Event / Encounter : Weather / Turbulence

Anomaly.Inflight Event / Encounter : Wake Vortex Encounter
Detector.Person : Flight Crew
When Detected : In-flight
Result.General : None Reported / Taken

Assessments

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

Narrative: 1

SDF was landing north with winds reported 18/07. Winds were 220/20-25kts down final. We touchdown with a TW (tailwind) of 14kts. I was monitoring the TW as we crossed threshold and it was 10kts. We then encountered wake turbulence from preceding aircraft. With the First Officer controlling that and corrected for safe landing, I then looked at the Primary Flight Display and realized we touched down with a 14kt TW. That explained the wake turbulence and longer than normal rollout. I reported this to the Tower and they said the supervisor was looking at turning the airport around. Then other aircraft began reporting the same TW issues. This was the second time this week that SDF was landing north with strong winds from the south. Two nights earlier we were the third airplane reporting landing at max TW limits. Prevention: No reason why we should be landing to the north with prevailing winds out of the south especially during summer months. Controllers have told us on frequency its about noise over Louisville. Noise is easier to overcome than jeopardizing the safety of pushing the TW limits especially on the Aircraft X.

Synopsis

Widebody Captain reported encountering wake turbulence on short final at SDF. Reporter also stated they landed with a 14 kt tailwind.

ACN: 2021352 *(38 of 50)*

Time / Day

Date : 202307
Local Time Of Day : 1201-1800

Place

Locale Reference.ATC Facility : ZZZ.TRACON
State Reference : US
Altitude.MSL.Single Value : 8000

Environment

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

Aircraft

Reference : X
ATC / Advisory.TRACON : ZZZ
Aircraft Operator : Air Carrier
Make Model Name : A319
Crew Size.Number Of Crew : 2
Operating Under FAR Part : Part 121
Flight Plan : IFR
Mission : Passenger
Flight Phase : Descent

Component

Aircraft Component : Weather Radar
Aircraft Reference : X
Problem : Design

Person

Location Of Person.Aircraft : X
Location In Aircraft : Flight Deck
Reporter Organization : Air Carrier
Function.Flight Crew : Captain
Function.Flight Crew : Pilot Flying
Qualification.Flight Crew : Air Transport Pilot (ATP)
Qualification.Flight Crew : Instrument
Qualification.Flight Crew : Multiengine
ASRS Report Number.Accession Number : 2021352
Human Factors : Situational Awareness
Human Factors : Human-Machine Interface

Events

Anomaly.Aircraft Equipment Problem : Critical
Anomaly.Deviation - Altitude : Excursion From Assigned Altitude
Anomaly.Deviation - Speed : All Types
Anomaly.Deviation - Track / Heading : All Types
Anomaly.Deviation / Discrepancy - Procedural : Published Material / Policy

Anomaly.Deviation / Discrepancy - Procedural : Clearance
Anomaly.Inflight Event / Encounter : Weather / Turbulence
Anomaly.Inflight Event / Encounter : Loss Of Aircraft Control
Detector.Person : Flight Crew
When Detected : In-flight
Result.General : Flight Cancelled / Delayed
Result.Flight Crew : Regained Aircraft Control
Result.Flight Crew : Overcame Equipment Problem
Result.Air Traffic Control : Provided Assistance
Result.Air Traffic Control : Issued New Clearance

Assessments

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

Narrative: 1

Being vectored for approach to Runway XX from the west. Aircraft initially at 8,000 feet and 210kts. We were vectored north of convective activity and issued a descent. Our radar showed small convective activity and we asked and received clearance to deviate left 10 degrees which was enough as per our radar display.. Our radar however, without time to alter course, then showed the convective activity to be much larger. I made the required PAs to passengers and Flight Attendants who were already seated. I attempted to alter course but was unable in time to avoid the convective activity. The aircraft initially pitched up exceeding the autopilot capability and I had to take over as Pilot Flying. Our attitude deviation was well in excess of 300 high and our speed might have exceeded 250 knots but never exceed the aircraft limits. We rolled initially but not more than 30 degrees. While I had some control of the aircraft throughout and manually regained pitch after the autopilot disengaged , I initially was unable to control the altitude without the probability of aircraft over speed as we were climbing and accelerating; thrust was idle, aircraft rapidly accelerating and climbing. There were two brief encounters, each probably less than a minute each. We exited the turbulence off heading and altitude. We reported the event to ATC who was very assistive in returning us to a good path to join the ILS. There were no injuries or aircraft load or speed exceedence. The radar units in many of our older Airbus aircraft have a known deficiency in both visibly and quality of return. This unit did not paint the convection until it was too late to alter course. Replace the older series radar.

Synopsis

A319 Captain reported that a known deficiency in older radar displays caused the flight crew to enter convective activity leading to a loss of aircraft control during approach. Crew recovered aircraft control and continued on the approach.

ACN: 2020873 *(39 of 50)*

Time / Day

Date : 202307
Local Time Of Day : 1201-1800

Place

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

Environment

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

Aircraft

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

Person

Location Of Person.Aircraft : X
Reporter Organization : Corporate
Function.Flight Crew : Pilot Flying
Function.Flight Crew : Single Pilot
Qualification.Flight Crew : Instrument
Qualification.Flight Crew : Multiengine
Qualification.Flight Crew : Commercial
Experience.Flight Crew.Total : 1818
Experience.Flight Crew.Last 90 Days : 102
Experience.Flight Crew.Type : 566
ASRS Report Number.Accession Number : 2020873
Human Factors : Communication Breakdown
Human Factors : Workload
Human Factors : Situational Awareness
Communication Breakdown.Party1 : Flight Crew
Communication Breakdown.Party2 : ATC

Events

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

Assessments

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

Narrative: 1

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

Synopsis

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

ACN: 2020871 *(40 of 50)*

Time / Day

Date : 202307
Local Time Of Day : 1201-1800

Place

Locale Reference.Airport : ZZZ.Airport
State Reference : US
Relative Position.Angle.Radial : 318
Relative Position.Distance.Nautical Miles : 8
Altitude.AGL.Single Value : 15

Environment

Flight Conditions : VMC
Weather Elements / Visibility : Haze / Smoke
Weather Elements / Visibility.Visibility : 4
Light : Daylight

Aircraft

Reference : X
Aircraft Operator.Other
Make Model Name : Small Aircraft
Operating Under FAR Part : Part 137
Flight Plan : None
Mission : Agriculture
Flight Phase.Other
Route In Use : None
Airspace.Class G : ZZZ

Person

Location Of Person.Aircraft : X
Function.Flight Crew : Single Pilot
Function.Flight Crew : Pilot Flying
Qualification.Flight Crew : Flight Instructor
Qualification.Flight Crew : Instrument
Qualification.Flight Crew : Commercial
Experience.Flight Crew.Total : 4000
Experience.Flight Crew.Last 90 Days : 225
Experience.Flight Crew.Type : 2000
ASRS Report Number.Accession Number : 2020871
Human Factors : Situational Awareness
Human Factors : Other / Unknown
Human Factors : Confusion

Events

Anomaly.Deviation / Discrepancy - Procedural : Published Material / Policy
Anomaly.Deviation / Discrepancy - Procedural : FAR
Anomaly.Inflight Event / Encounter : Weather / Turbulence
Anomaly.Inflight Event / Encounter : CFTT / CFIT
Detector.Person : Flight Crew

Miss Distance.Horizontal : 50
Miss Distance.Vertical : 10
When Detected : In-flight
Result.Flight Crew : Took Evasive Action

Assessments

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

Narrative: 1

I was in the process of aerial application (part 137) and was forced to cross a highway at low altitude because of aircraft weight and a cross country power line. I was coming south toward the highway and the cross country wire spraying corn. As I approached the highway and wires I realized that I could not make it up and over the wire without hitting it. I saw that there was sufficient room to go under the wire and avoid a wire strike and accident. In doing so I had cross in front of traffic on the highway at low altitude and a lot closer than I wanted to. Once I knew I couldn't make it over the wire I was watching traffic and started a left turn to avoid the highway traffic and get to a better place to pass under the power lines. I not expecting that I wouldn't be able to make it over the power line but because of speed and weight of the aircraft. Another contributing factor to this event is heavy haze in the area from the wildfire smoke. Because of the haze depth perception with the power lines was off and they blended in with the haze in the area. After this event I started pulling up a lot farther in advance and I am trying to avoid this situation ever happening again. Chain or events: aerial application and having to cross a highway with cars on it at low altitude and go under a wire. Contributing factors were aircraft weight and speed along with the smoke/haze causing the wires to blend in. The corrective action is giving more room to wires and wire avoidance. Human performance: my perception that the wires were farther away until it was too late to go over them caused me to make a judgment call and go under the wire and over the highway to avoid a collision with the power lines. The haze causing depth perception to be off didn't help this situation.

Synopsis

Agriculture pilot reported a near miss with power lines that were obscured by smoke and haze while performing aerial application of fertilizer. The pilot mis-judged the distance to the power lines, decided to fly under the power lines and was able to avoid hitting the power lines during the maneuver.

ACN: 2020190 *(41 of 50)*

Time / Day

Date : 202307
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 : Cessna 140
Crew Size.Number Of Crew : 2
Operating Under FAR Part : Part 91
Flight Plan : None
Mission : Personal
Flight Phase : Landing

Person

Location Of Person.Aircraft : X
Location In Aircraft : Flight Deck
Reporter Organization : Personal
Function.Flight Crew : Pilot Flying
Qualification.Flight Crew : Flight Instructor
Qualification.Flight Crew : Instrument
Experience.Flight Crew.Total : 4330
Experience.Flight Crew.Last 90 Days : 32
Experience.Flight Crew.Type : 530
ASRS Report Number.Accession Number : 2020190
Human Factors : Situational Awareness
Human Factors : Distraction

Events

Anomaly.Ground Excursion : Runway
Anomaly.Ground Event / Encounter : Weather / Turbulence
Anomaly.Ground Event / Encounter : Loss Of Aircraft Control
Detector.Person : Flight Crew
When Detected : In-flight
Result.Flight Crew : Took Evasive Action
Result.Flight Crew : Regained Aircraft Control

Assessments

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

Narrative: 1

Airplane owner is recovering from knee surgery and asked me to take her flying. Me in left seat, owner in right. She did the takeoff and all the flying for 45 minutes then I suggested a touch and go at ZZZ. We listened to ATIS but I don't recall what the wind was doing. I do recall that most of the taxiways were closed and under repair/construction. Owner flew the pattern then asked me to take it on short final. We were high and fast so I slipped to lose altitude and held nose up to reduce airspeed. I intended a wheel landing then touch and go. I bounced a bit on the touch down and was blown off to the left by a right crosswind and went off the runway into the dirt and dirt clods and saw construction cones in front of me. I pressed right rudder and got back on the runway where the plane made 2.5 circles and stopped facing back the way I came. Tower asked if I needed help which I declined then turned back in the correct direction and taxied to the end of the runway where I exited at [Taxiway] XX and told ground I was shutting down to check the plane. The owner and I got out and examined thoroughly. There was no damage. The only evidence of my "off roading" was dust on the tires. We got back in the plane, taxied to the departure end, took off and landed back at ZZZ1 with no issues. Human performance considerations - as a CFI, I should remain alert, aware of the situation and environment at all times and ready to take corrective action. I did not do that yesterday. The airplane owner and I are friends and we were enjoying a beautiful day, flight and conversation. I was not paying much attention to the windsocks or to the final approach and got caught off guard. I should have recognized I was not prepared for the landing and gone around and made sure I had a stabilized approach and a clear picture of the wind situation. I was incredibly lucky not to have damaged the plane or caused any injuries.

Synopsis

Cessna 140 pilot reported a runway excursion during landing. Reportedly, the flying pilot was high and fast and bounced upon touchdown then they were blown off to the left by unexpected right crosswinds.

ACN: 2019937 *(42 of 50)*

Time / Day

Date : 202307
Local Time Of Day : 0001-0600

Place

Locale Reference.ATC Facility : ZSHA.ARTCC
State Reference : FO
Altitude.MSL.Single Value : 38500

Environment

Flight Conditions : IMC
Weather Elements / Visibility : Turbulence

Aircraft

Reference : X
ATC / Advisory.Center : ZSHA
Aircraft Operator : Air Carrier
Make Model Name : Widebody, Low Wing, 3 Turbojet Eng
Crew Size.Number Of Crew : 2
Operating Under FAR Part : Part 121
Flight Plan : IFR
Flight Phase : Cruise

Person

Location Of Person.Aircraft : X
Location In Aircraft : Flight Deck
Reporter Organization : Air Carrier
Function.Flight Crew : Captain
Function.Flight Crew : Pilot Flying
Qualification.Flight Crew : Instrument
Qualification.Flight Crew : Air Transport Pilot (ATP)
Qualification.Flight Crew : Multiengine
ASRS Report Number.Accession Number : 2019937

Events

Anomaly.Deviation - Altitude : Excursion From Assigned Altitude
Anomaly.Deviation / Discrepancy - Procedural : Clearance
Anomaly.Inflight Event / Encounter : Weather / Turbulence
Anomaly.Inflight Event / Encounter : Loss Of Aircraft Control
Detector.Automation : Aircraft Other Automation
When Detected : In-flight
Result.Flight Crew : Returned To Clearance
Result.Flight Crew : Regained Aircraft Control

Assessments

Contributing Factors / Situations : Weather
Primary Problem : Weather

Narrative: 1

With Shanghai Control approaching point SADLI, crew requested 5 NM Right due to weather seen on radar - was granted by Shanghai ATC (just transferred) from ICN Control. Aircraft was at FL380, autopilot ON. Did immediate right turn to avoid weather at approximately 2 NM right of course encountered moderate turbulence, Heads-Up Display (HUD) EVIS was blank, aircraft rapidly started to climb - "Altitude Alert" came on at +300 ft., I immediately turned off the autopilot and pulled back the throttles to get back to altitude, aircraft deviated +500 ft. before being corrected. Re-engaged autopilot at FL380 and the aircraft immediately pitched over, but this time I turned off the autopilot and corrected before -300 ft. During this time Shanghai Control saw our altitude deviation - First Officer (FO) said we were correcting as I had my hands full. The whole incident was about 15 seconds. After leveling again at FL380 - re-engaged autopilot thereafter with no incident. When aircraft under control, I radioed ATC and told them we had moderate turbulence in the weather causing our altitude deviation. No other transmission on the subject was noted. Descended and landed without incident. Cause: Weather turbulence, wind shear

Synopsis

Air carrier Captain reported momentary loss of aircraft control after encountering turbulence at FL380 while under control of ZSHA Control Center. Reportedly, the aircraft rapidly began to climb, the crew received an Altitude Alert before disconnecting the autopilot to manually regain control.

ACN: 2019932 *(43 of 50)*

Time / Day

Date : 202307
Local Time Of Day : 0001-0600

Place

Locale Reference.Airport : ZZZ.Airport
State Reference : US
Altitude.MSL.Single Value : 1500

Environment

Weather Elements / Visibility : Windshear

Aircraft

Reference : X
ATC / Advisory.TRACON : PBI
Aircraft Operator : Air Carrier
Make Model Name : Commercial Fixed Wing
Crew Size.Number Of Crew : 2
Operating Under FAR Part : Part 121
Flight Plan : IFR
Mission : Passenger
Flight Phase : Initial Approach
Airspace.Class C : PBI

Person : 1

Location Of Person.Aircraft : X
Location In Aircraft : Flight Deck
Reporter Organization : Air Carrier
Function.Flight Crew : Pilot Flying
Function.Flight Crew : First Officer
Qualification.Flight Crew : Air Transport Pilot (ATP)
Qualification.Flight Crew : Multiengine
Qualification.Flight Crew : Instrument
ASRS Report Number.Accession Number : 2019932

Person : 2

Location Of Person.Aircraft : X
Location In Aircraft : Flight Deck
Reporter Organization : Air Carrier
Function.Flight Crew : Pilot Not Flying
Function.Flight Crew : Captain
Qualification.Flight Crew : Air Transport Pilot (ATP)
Qualification.Flight Crew : Multiengine
Qualification.Flight Crew : Instrument
ASRS Report Number.Accession Number : 2020458

Events

Anomaly.Deviation - Speed : All Types
Anomaly.Deviation / Discrepancy - Procedural : Published Material / Policy
Anomaly.Inflight Event / Encounter : Weather / Turbulence
Anomaly.Inflight Event / Encounter : Loss Of Aircraft Control
Detector.Person : Flight Crew
When Detected : In-flight
Result.Flight Crew : Regained Aircraft Control
Result.Air Traffic Control : Issued Advisory / Alert

Assessments

Contributing Factors / Situations : Weather
Primary Problem : Weather

Narrative: 1

On the base turn, approach cleared us for the visual to Runway 28R at PBI and ask to report if we encounter any wind shear because we're below a system over the field. Right after being cleared to land by tower on Runway 28R, I asked for flaps 30 and below the line, the CA moved the flaps to 30 and completed the checklist. Around 1400-1500 feet indicated, the airplane felt like it was being pushed around erratically by the winds and I quickly realized that we had encountered performance increasing wind shear. Instinctively, I quickly disconnected the autopilot and got the airplane back under control and we both felt safe to continue to an uneventful landing. The CA reported the wind shear to tower while on final. I suspected that we might've had an over speed of the flaps at 30 due to the rapid increase in speed, so we pulled the flap data and confirmed that we exceeded the flap 30 speed by 4 knots (179 KT). The CA contacted Maintenance Control, requested a flap inspection, and wrote up the event in the logbook. Dying thunderstorms over the field is a recipe for wind shears. This one would be hard to predict. Speed increased rapidly and wasn't preventable.

Narrative: 2

Flying visual approach 28R shortened with vector to FAF. Checklists complete gear down flaps 30 on base leg. PBI Tower asks to report if we get any shear as we fly under a layer not painting anything, field clear, dry and insight. Just a moment later encountered an increasing performance wind shear as airspeed suddenly increased. No warnings in cockpit. Pilot flying disconnected autopilot and hand flew to normal landing. We informed tower before landing and pulled flight data flap information where we suspected a momentary flap over speed. This was confirmed that we had exceeded 175 limit for 30 flaps. It showed 179 -30 flaps. Called Maintenance Control and requested over speed inspection in logbook. Unseen weather in visual conditions. I don't have any great suggestions since our radar wasn't even painting anything. The speed this happened happened in a few seconds. FO handled it the way I would have by disconnecting autopilot and stabilizing aircraft.

Synopsis

Air carrier flight crew reported a windshear encounter during approach to PBI airport resulting in a flap overspeed and momentary loss of aircraft control.

ACN: 2019869 *(44 of 50)*

Time / Day

Date : 202306
Local Time Of Day : 0001-0600

Place

Locale Reference.ATC Facility : ZZZ.ARTCC
State Reference : US
Altitude.MSL.Single Value : 33000

Environment

Flight Conditions : IMC

Aircraft

Reference : X
Aircraft Operator : Air Carrier
Make Model Name : EMB ERJ 145 ER/LR
Crew Size.Number Of Crew : 2
Operating Under FAR Part : Part 121
Flight Plan : IFR
Mission : Passenger
Flight Phase : Cruise

Component

Aircraft Component : Autopilot
Aircraft Reference : X
Problem : Failed

Person

Location Of Person.Aircraft : X
Location In Aircraft : Flight Deck
Reporter Organization : Air Carrier
Function.Flight Crew : Captain
Function.Flight Crew : Pilot Not Flying
Qualification.Flight Crew : Instrument
Qualification.Flight Crew : Multiengine
Qualification.Flight Crew : Air Transport Pilot (ATP)
ASRS Report Number.Accession Number : 2019869
Human Factors : Situational Awareness

Events

Anomaly.Aircraft Equipment Problem : Less Severe
Anomaly.Deviation - Altitude : Overshoot
Anomaly.Deviation - Altitude : Excursion From Assigned Altitude
Anomaly.Deviation / Discrepancy - Procedural : Clearance
Anomaly.Inflight Event / Encounter : Weather / Turbulence
Anomaly.Inflight Event / Encounter : Loss Of Aircraft Control
Detector.Person : Flight Crew
When Detected : In-flight

Result.Flight Crew : Returned To Clearance
Result.Flight Crew : Regained Aircraft Control

Assessments

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

Narrative: 1

At cruise approximately Location, flight experienced severe turbulence. Autopilot disengaged and control was lost and the aircraft climbed 700 ft. before we were able to regain control and return to assigned altitude of FL330. ATC was informed, Flight Attendant and passengers were seated and safe. Suggestion: More space between we and aircraft Cause: Weather not detected on weather radar

Synopsis

EMB145 Captain reported loss of aircraft control from a turbulence encounter during cruise at FL330. Crew recovered aircraft control and continued to destination with no injuries or damage reported.

ACN: 2019384 *(45 of 50)*

Time / Day

Date : 202307
Local Time Of Day : 0601-1200

Place

Locale Reference.ATC Facility : ZZZ.ARTCC
State Reference : US
Altitude.MSL.Single Value : 36000

Environment

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

Aircraft

Reference : X
ATC / Advisory.Center : ZZZ
Aircraft Operator : Air Carrier
Make Model Name : EMB ERJ 145 ER/LR
Crew Size.Number Of Crew : 2
Operating Under FAR Part : Part 121
Flight Plan : IFR
Mission : Passenger
Flight Phase : Cruise
Airspace.Class A : ZZZ

Component : 1

Aircraft Component : Indicating and Warning - Fuel System
Aircraft Reference : X
Problem : Malfunctioning

Component : 2

Aircraft Component : FMS/FMC
Aircraft Reference : X
Problem : Malfunctioning

Component : 3

Aircraft Component : Communication Systems
Aircraft Reference : X
Problem : Malfunctioning

Person

Location Of Person.Aircraft : X
Location In Aircraft : Flight Deck
Reporter Organization : Air Carrier
Function.Flight Crew : Captain
Qualification.Flight Crew : Multiengine

Qualification.Flight Crew : Air Transport Pilot (ATP)
Qualification.Flight Crew : Instrument
ASRS Report Number.Accession Number : 2019384
Human Factors : Human-Machine Interface
Human Factors : Troubleshooting
Human Factors : Workload
Human Factors : Communication Breakdown
Communication Breakdown.Party1 : Flight Crew
Communication Breakdown.Party2 : Other

Events

Anomaly.Aircraft Equipment Problem : Critical
Anomaly.ATC Issue : All Types
Anomaly.Deviation - Track / Heading : All Types
Anomaly.Deviation / Discrepancy - Procedural : Published Material / Policy
Anomaly.Deviation / Discrepancy - Procedural : Clearance
Anomaly.Inflight Event / Encounter : Weather / Turbulence
Anomaly.Inflight Event / Encounter : Fuel Issue
Detector.Person : Flight Crew
When Detected : In-flight
Result.Flight Crew : Landed in Emergency Condition
Result.Flight Crew : Requested ATC Assistance / Clarification
Result.Air Traffic Control : Provided Assistance

Assessments

Contributing Factors / Situations : Aircraft
Primary Problem : Aircraft

Narrative: 1

We got rerouted from the northeast entry to the northwest entry. I estimated that we would have approximately 45 minutes reserve at the time of landing. As we progressed further westward the FMS fuel estimation for landing began to decrease. We were being directed from an area of good weather into an area of bad weather. I noticed an increase in the head winds from approximately 75 kts to approximately 125 kts at times. We were then notified that we would have to, more than likely hold. I informed air traffic control that we would be minimum fuel, and they suggested we go and divert. I used commercial radio to contact Dispatch. At this time we had entered the bad weather, and there was a tremendous amount of static over the radios. During the preceding portion of this flight leg, we were getting VOR fail, dme fail and GPS fail warnings along with Check reserve fuel warnings. Initially I made a mental fuel calculation based on a burn of 50 pounds per minute, and the FMS fuel balanced to the gauges. ETA plus remaining fuel figured against fuel gauges and 50 pounds per minute corroborated each other. I made contact with commercial radio and they patched me through to Dispatch. In the middle of the conversation with Dispatch before completely notifying them of our situation that we were minimum fuel, and looking to divert COM one went dead. I could not raise commercial radio after that point. At the same time, the first officer was starting a turn south, and I asked what was going on since I was off of COM two, and on COM one. I was told that they were turning us in. I looked down and noticed the FMS was stating that we had 1.0 remaining for fuel at ETA. ATC then gave us a turn westward, basically the wrong direction, and started factoring us out. I noticed the FMS quickly said 2.0 on the fuel and then quickly dropped to 0.8. 800 pounds is approximately 16 minutes and at that very moment air traffic control asked us if we needed [priority handling] and I had about five

seconds to think it over at best, and I said yes. They gave us a fix, but I do not remember at this time what it was and put it into the FMS and hit direct to. The auto pilot then started a turn in the opposite direction. I turned off the auto pilot and manually flew the aircraft onto the proper course. I looked down at the FMS and at that point it was saying 2.0 for fuel. That started to confuse me as to why it was fluctuating as much as it was. I looked back down again and it was saying 0.8. Again, the FMS said DME fail, followed by vor fail. And again, for approximately the third time we received a check reserve fuel warning. Progressing toward the airport the FMS fuel estimation fluctuated up and down wildly. I was forced from the start of the event to either believe the FMS calculations, which had been accurate or to trust the fuel gauges. At that time we were out of contact with company and had no Alternate to divert to and we were in bad weather Imc. Since the FMS estimate was dropping lower each time, I opted for safety concerns to go with the most conservative of my fuel indications. I do remember looking down at the FMS fuel estimation a few times the approach. One minute it read 0.9 and then would jump up and read 2.0 and then it would go to a different number. I do remember seeing 0.3 and I was estimating that that would be about six minutes of flying time. At that time I stayed as high as possible with the power set to the lowest possible setting to conserve fuel. I did not extend flaps or gear until close in to the runway, conserving, momentum, and keeping drag at a minimum. I do remember looking for fields and roads coming into the north side of the airport just in case. The very last number that I saw on final approach was 0.3 for the fuel estimation. Upon Rollout I looked down again and the FMS was reading 2.0. Upon arriving at the gate it was either 1.8 or 1.9. Approximately. I really don't remember anything other than my hands and my knees were shaking. After we arrived at the gate, I remember looking down and it was reading 2.0 again.

Synopsis

EMB-145 Captain reported a reroute and increased headwinds caused fuel reserves to drop to minimum. The reporter stated fuel gauge indications fluctuated indicating below minimums at times and FMS was not working properly. Flight crew received priority handling and landed at destination airport.

ACN: 2018769 *(46 of 50)*

Time / Day

Date : 202307
Local Time Of Day : 1801-2400

Place

Locale Reference.Airport : DBQ.Airport
State Reference : IA
Altitude.AGL.Single Value : 0

Environment

Weather Elements / Visibility : Turbulence

Aircraft

Reference : X
ATC / Advisory.Tower : DBQ
Make Model Name : Small Aircraft, High Wing, 1 Eng, Fixed Gear
Crew Size.Number Of Crew : 1
Mission : Training
Flight Phase : Landing
Airspace.Class C : DBQ

Person

Location Of Person.Aircraft : X
ASRS Report Number.Accession Number : 2018769
Human Factors : Training / Qualification

Events

Anomaly.Deviation / Discrepancy - Procedural : Published Material / Policy
Anomaly.Ground Event / Encounter : Ground Strike - Aircraft
Anomaly.Inflight Event / Encounter : Loss Of Aircraft Control
Anomaly.Inflight Event / Encounter : Weather / Turbulence
Anomaly.Inflight Event / Encounter : Unstabilized Approach
Detector.Person : Flight Crew
When Detected.Other
Result.Flight Crew : Regained Aircraft Control
Result.Flight Crew : Executed Go Around / Missed Approach
Result.Aircraft : Aircraft Damaged

Assessments

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

Narrative: 1

Winds light and variable with occasional up and down drafts above runway. Student started to flare too early. Instructor pitched plane forward to keep approach speed decent angle until closer to the runway. Aircraft entered downdraft which made for large vertical descent rate. A go-around was initiated but aircraft touched down and struck the tail in the

process. The aircraft touched down hard but no tail strike was felt by the pilots. [Was caused by] occasional up and down drafts and student flaring too early

Synopsis

GA student pilot reported damage to tail of aircraft as a result of a hard landing or go-around after student flared early during variable wind conditions.

ACN: 2018466 *(47 of 50)*

Time / Day

Date : 202307
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 : Windshear
Weather Elements / Visibility.Visibility : 10
Light : Daylight
Ceiling.Single Value : 25000

Aircraft

Reference : X
ATC / Advisory.UNICOM : ZZZ
Aircraft Operator : Personal
Make Model Name : Luscombe Model 8/Luscombe 50
Crew Size.Number Of Crew : 1
Operating Under FAR Part : Part 91
Flight Plan : None
Mission : Personal
Flight Phase : Takeoff / Launch
Route In Use : None
Airspace.Class E : ZZZ

Person

Location Of Person.Aircraft : X
Location In Aircraft : Flight Deck
Reporter Organization : Personal
Function.Flight Crew : Single Pilot
Qualification.Flight Crew : Private
Experience.Flight Crew.Total : 8000
Experience.Flight Crew.Last 90 Days : 50
Experience.Flight Crew.Type : 3000
ASRS Report Number.Accession Number : 2018466
Human Factors : Situational Awareness
Human Factors : Confusion

Events

Anomaly.Aircraft Equipment Problem : Less Severe
Anomaly.Ground Excursion : Runway
Anomaly.Ground Event / Encounter : Loss Of Aircraft Control
Anomaly.Ground Event / Encounter : Weather / Turbulence
Anomaly.Inflight Event / Encounter : Object
Anomaly.Inflight Event / Encounter : Weather / Turbulence

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

Assessments

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

Narrative: 1

AWOS reported winds variable at 10 knots Winds favored Runway XX at ZZZ. Started takeoff roll after lifting tailwheel up and accelerating to around 60 MPH the wind shifted to a left quartering tail wind causing the aircraft to veer to the left. The aircraft departed the runway and struck a runway sign the aircraft was airborne at this time. Continued around and landed. Tailwheel had separated from aircraft. Shortly after this incident 15 min the wind shifted to a steady 10 knot wind favoring Runway XY.

Synopsis

Luscombe pilot reported a wind shift on takeoff which caused the aircraft to veer off the runway, striking a runway sign once airborne. The pilot regained aircraft control, flew a pattern, then landed safely.

ACN: 2018142 *(48 of 50)*

Time / Day

Date : 202307
Local Time Of Day : 1201-1800

Place

Locale Reference.ATC Facility : ZZZ.Tower
State Reference : US

Environment

Light : Daylight

Aircraft

Reference : X
Aircraft Operator : Air Carrier
Make Model Name : B737-800
Crew Size.Number Of Crew : 2
Operating Under FAR Part : Part 121
Flight Plan : IFR
Flight Phase : Takeoff / Launch

Component

Aircraft Component : Fuselage Tail Cone
Aircraft Reference : X
Problem : Improperly Operated

Person : 1

Location Of Person.Aircraft : X
Location In Aircraft : Flight Deck
Reporter Organization : Air Carrier
Function.Flight Crew : Pilot Not Flying
Function.Flight Crew : First Officer
Qualification.Flight Crew : Multiengine
Qualification.Flight Crew : Air Transport Pilot (ATP)
Qualification.Flight Crew : Instrument
Experience.Flight Crew.Last 90 Days : 190
Experience.Flight Crew.Type : 1995
ASRS Report Number.Accession Number : 2018142
Human Factors : Troubleshooting

Person : 2

Location Of Person.Aircraft : X
Location In Aircraft : Flight Deck
Reporter Organization : Air Carrier
Function.Flight Crew : Pilot Flying
Function.Flight Crew : Captain
Qualification.Flight Crew : Multiengine
Qualification.Flight Crew : Air Transport Pilot (ATP)
Qualification.Flight Crew : Instrument

Experience.Flight Crew.Last 90 Days : 78
Experience.Flight Crew.Type : 78
ASRS Report Number.Accession Number : 2017494
Human Factors : Troubleshooting

Events

Anomaly.Aircraft Equipment Problem : Critical
Anomaly.Deviation / Discrepancy - Procedural : Published Material / Policy
Anomaly.Ground Event / Encounter : Weather / Turbulence
Anomaly.Ground Event / Encounter : Ground Strike - Aircraft
Anomaly.Inflight Event / Encounter : Weather / Turbulence
Detector.Person : Flight Crew
When Detected : In-flight
Result.General : Maintenance Action
Result.General : Flight Cancelled / Delayed
Result.Flight Crew : Diverted
Result.Aircraft : Aircraft Damaged

Assessments

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

Narrative: 1

The day was a long duty day, scheduled for 10 hours. It was a 3-leg day, starting in ZZZ with a short flight to ZZZ, continuing to ZZZ1, and eventually ending at ZZZ2. On our arrival into ZZZ1, the ATIS showed a 10-knot tail wind, to which the Captain and I felt was in our best interest to request a more suitable runway, which would give us the least risk of landing in ZZZ1. This was our mentality the entire trip. Take it slow, make good decisions using our risk analysis model, and CRM. The winds in ZZZ1 were swirling around that day, as we landed on XXR versus XYL. Upon arrival at the gate, I did my walkaround and noticed a screw in the left main inboard tire. I notified the Captain, and he contacted Maintenance. It was determined that we would need a tire change. This, of course, caused our delay for departure to ZZZ2. The winds were still gusty, but nothing out of limitations, so we taxied to XYR for departure. The original ATIS, at time of pushback, was showing variable at 5 to 6 knots. However, just prior to lining up, the winds were now a gusty crosswind from the left. I was Pilot Monitoring (PM), and we were cleared for takeoff. The Pilot Flying (PF) applied the correct crosswind correction on the takeoff roll, and I made the appropriate takeoff callouts. At Vr, the PF rotated at a normal rate, to approximately 10 degrees. Immediately after, the aircraft pitched up more aggressively, before the main wheels were off the runway. The mains then lifted, and we both heard a thump. I believed the tail had struck. We continued the cleanup sequence, and we were handed to Departure. It was a busy time, as we were given a climb via, which had the low altitude hold-down, but then we were immediately given a vector from the Departure and altitude changes off the departure for traffic. Once the workload began to decrease, we were able to discuss the takeoff, as well as take a call from the Flight Attendants, who said they heard the sound of metal, as well as the feeling of hitting a speed bump. At this point the Captain transferred controls and contacted Maintenance in ZZZ1 to confirm how to locate on the document page of the FMC for the pitch, to determine tail strike. We were still unable to find the Pitch selection from ZZZ1 Maintenance. We leveled off at an intermediate altitude and ran the QRH and monitored pressurization. The Captain and I discussed the need to patch in with Dispatch and Maintenance via ARINC for a diversion

plan. He was patched through and discussed a plan of action and options for diversion to either ZZZ1 or ZZZ3. We both agreed after looking at equal distances from either airport, that ZZZ3 was the better option with the winds showing three-knots and a long runway. This would also allow us to land under max landing weight. The diversion was confirmed with Dispatch and received via ACARS. The Captain notified the Passengers as to the plan as well as the Flight Attendants. The new route was put in, and the diversion checklist was completed. All normal checklists were complied with as well. Flight controls were then transferred to the Captain, and the briefings for ZZZ3 were completed, as well as the PM coordinating with ATC for lower altitudes to ensure fuel burn to be under max landing weight for landing. The longest runway was requested (XY), and a smooth min breaking touchdown was accomplished. We taxied to Gate XXX, to be met by Maintenance, Operations Agent, and Assistant Chief Pilot. Maintenance notified us that there was a tail strike, but the cartridge was in the green band, and the shoe was scraped and would only need to be repainted for the aircraft to be returned to service.

Narrative: 2

Aircraft pushed following short delay for tire-swap (screw imbedded in tire found by First Officer (FO) during walkaround). Captain was Pilot Flying (PF). Weather was VMC, winds were left crosswind with gusts to 24. Once cleared, normal takeoff roll with slight left yoke deflection to counter crosswind. PF rotated the aircraft at Vr at normal rate of pitch change. During liftoff Captain/FO felt vibration at near simultaneous main gear lifting from runway surface. Continued clean up and initial climb out per SID. Following 10,000 ft. announcement by Flight Attendants (FA), two dings from Cabin Crew were made and Captain responded. FA's stated that they had heard a metallic scrape during takeoff. Captain and FO suspected possible tail strike during takeoff based on flight deck observations and FA input. In order to further confirm suspected strike, flight deck Crew attempted to access pitch angle during takeoff data in order to crosscheck aircraft data. As no appropriate data was located within ACARS or ACMS, Captain contacted ZZZ1 Maintenance on station frequency to attempt to verify onboard data for takeoff pitch for further verification. Captain was informed by Maintenance that this data was not available after aircraft becomes airborne. Finding that no other means were available to confirm the tail strike, flight deck Crew coordinated an intermediate level off and commenced the QRH Checklist for tail strike during takeoff. The flight deck Crew observed the cabin differential in the mid-range level and was functioning properly with normal rates. The FO was passed control of aircraft and continued to communicate with ATC. Captain contacted Dispatch through ARINC to discuss return or diversion. Dispatch remained on patch while flight crew finalized assessments and weighed risks of identified options. The Flight Crew commenced discussion of return to ZZZ1 or diversion. The flight deck Crew prioritized landing with lowest possible airframe stress. All available information to execute this course of action was considered. Although not out of limits, the winds at ZZZ1 were less favorable than ZZZ3. ZZZ3 was reporting calm winds, had multiple long runways, and the need to burn down fuel below MLGW were present with either option. ZZZ3 location was also equally suitable as it offered an extensive maintenance presence, and robust Passenger re-accommodations, as well as additional flight deck and In-flight Crew Personnel. After thoroughly considering the best course of action, the two locations were nearly equal in distance, time and fuel burn and the aircraft was still above its MLGW. Per the QRH, Captain made decision to divert to ZZZ3 as the nearest suitable airport (checklist complete). The Diversion Checklist was then continued. Diversion was coordinated with Dispatch, and data/plan was received from Dispatch via ACARS. Captain confirmed with Dispatch that the landing would not be overweight. As the FO coordinated the diversion with ATC and subsequent routing and lower altitudes to assist fuel burn to ZZZ3, the Captain informed the Flight Attendants of the aircraft status and decision to divert. The Passengers were then addressed via PA and notified of diversion. Diversion checklist was

complete. As the aircraft continued to descend, the flight deck Crew reevaluated pressurization and Captain determined the pressurization would remain in the AUTO schedule to ensure the most advanced scheduling was available to protect the aircraft and Passengers during high Air Crew task loading in rising terrain environment. The Captain's intent was to not exacerbate a possible existent condition (tail strike) with the potential of a manual control error of too rapidly depressurizing the cabin while above 10,000 ft. MSL. This error would have likely yielded Passenger discomfort and possible injury. FO returned controls to Captain. Captain completed arrival, approach, and landing (runway exit) briefings. Descent and Approach Checklists were completed. To reduce structural loads on touchdown, the Captain made a Flaps 30 landing, at minimal descent rate, using minimal required brake pressure and long rollout, at less than MLGW on Runway XX. Taxied to gate. Immediate coordination with Station Personnel that were standing by began upon shutdown (Asst Chief Pilot, Maintenance, Operations Agent, Customer Service Agent, In-flight supervisor). Captain conducted a face-to-face brief with Maintenance and an inspection commenced. Maintenance inspected aircraft and informed Captain that a tail strike had indeed occurred but there was no significant damage although bare metal was visible on a portion of the shoe. The cartridge was also deemed serviceable as the green band was visible. An appropriate logbook entry was made by the Captain, signed off by Maintenance and OK to continue. The aircraft then continued immediately to ZZZ2. The Captain departed aboard subject aircraft as a DH Passenger to ZZZ2 where he then contacted Dispatch per FOM chapter. To avoid future incidents of tail strike Air Crew should be vigilant in ensuring proper rotation rate is achieved regardless of winds or other dynamics that would affect pitch rate during takeoff.

Synopsis

B737-800 flight crew reported a tail strike occurred during takeoff in gusty wind conditions. Flight crew diverted and post flight inspection found minor damage.

ACN: 2018131 *(49 of 50)*

Time / Day

Date : 202307
Local Time Of Day : 1801-2400

Place

Locale Reference.ATC Facility : ZZZ.ARTCC
State Reference : US
Altitude.MSL.Single Value : 40000

Environment

Light : Night

Aircraft

Reference : X
Aircraft Operator : Air Carrier
Make Model Name : B737-700
Crew Size.Number Of Crew : 2
Operating Under FAR Part : Part 121
Flight Plan : IFR
Mission : Passenger
Flight Phase : Cruise

Person

Location Of Person.Aircraft : X
Location In Aircraft : Flight Deck
Reporter Organization : Air Carrier
Function.Flight Crew : Captain
Function.Flight Crew : Pilot Flying
Qualification.Flight Crew : Air Transport Pilot (ATP)
Qualification.Flight Crew : Instrument
Qualification.Flight Crew : Multiengine
ASRS Report Number.Accession Number : 2018131
Human Factors : Situational Awareness
Human Factors : Human-Machine Interface
Human Factors : Communication Breakdown
Human Factors : Confusion
Communication Breakdown.Party1 : Flight Crew
Communication Breakdown.Party2 : ATC

Events

Anomaly.Deviation - Track / Heading : All Types
Anomaly.Deviation / Discrepancy - Procedural : Published Material / Policy
Anomaly.Deviation / Discrepancy - Procedural : Clearance
Anomaly.Inflight Event / Encounter : Weather / Turbulence
Detector.Person : Air Traffic Control
When Detected : In-flight
Result.Flight Crew : Became Reoriented
Result.Air Traffic Control : Issued New Clearance

Assessments

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

Narrative: 1

En route from ZZZ1 to ZZZ we received a revised route clearance via CPDLC. The clearance was "Load new route to ZZZZZ rest of route unchanged, due to weather." The second page had dashes, then ZZZ2 XXX/XXY ZZZZZ./.ZZZ. The First Officer and I discussed it, loaded ZZZZZ in the LEGS 1 Page, and executed the route with LNAV engaged. We thought we were cleared directly to ZZZZZZ for weather buildups around the ZZZ2 XXX/XXY fix. After about 10 minutes, as I came back to flight intercom after coordinating with the flight attendants, the First Officer informed me ATC wanted us to fly to the ZZZ2 XXX/XXY fix and then ZZZZZ. I reprogrammed the FMC and executed the route. It was then, after further discussion, that we realized we should have flown to the ZZZ2 fix and then ZZZZZ. By then, the weather was dissipating, so there were no weather threats in the area. There also were no known traffic conflicts either. We then flew an uneventful arrival, approach, and landing into ZZZ. First, I had not seen a radial and DME fix in a CPDLC reroute in a long time, I believe. My expectation bias led me to think the re-route to ZZZZZ was for weather at that fix, and that led me and the First Officer to agree on direct ZZZZZ. But, as I discovered after we realized our error, if I had used the load function of CPDLC instead of the manual direct function, the ZZZ2 fix and ZZZZZ would have loaded in sequence. But because I misinterpreted the CPDLC message as the re-route was for weather around the ZZZ2 fix, that led me to my error. The First Officer and I discussed that next time we would query ATC in a similar situation, to make sure our interpretation was correct, plus the load function is best versus plugging the point(s) directly into the LEGS page (even though the abeam points, if used, would disappear). I am certain if ATC had verbally given us the en route change, we would have executed it with no issues, so this situation taught me a good lesson to adhere to our procedures and query ATC if there is any issue, plus to balance the written CPDLC reroute clearance with both of our expectations to make sure we comply with ATC's instructions.

Synopsis

Air carrier Captain reported misunderstanding of a CPDLC course reroute received in cruise and manually loading the clearance instead of using the load function resulted in a course deviation.

ACN: 2017620 *(50 of 50)*

Time / Day

Date : 202307
Local Time Of Day : 1801-2400

Place

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

Environment

Weather Elements / Visibility : Icing
Weather Elements / Visibility : Thunderstorm
Light : Night

Aircraft

Reference : X
Aircraft Operator : Air Carrier
Make Model Name : A321
Crew Size.Number Of Crew : 2
Operating Under FAR Part : Part 121
Flight Plan : IFR
Mission : Passenger
Flight Phase : Climb
Airspace.Class B : ZZZ

Component

Aircraft Component : Pneumatic Valve/Bleed Valve
Aircraft Reference : X
Problem : Malfunctioning

Person

Location Of Person.Aircraft : X
Location In Aircraft : Flight Deck
Reporter Organization : Air Carrier
Function.Flight Crew : Captain
Function.Flight Crew : Pilot Flying
Qualification.Flight Crew : Instrument
Qualification.Flight Crew : Air Transport Pilot (ATP)
Qualification.Flight Crew : Multiengine
ASRS Report Number.Accession Number : 2017620

Events

Anomaly.Aircraft Equipment Problem : Critical
Anomaly.Deviation / Discrepancy - Procedural : Published Material / Policy
Anomaly.Deviation / Discrepancy - Procedural : MEL / CDL
Anomaly.Inflight Event / Encounter : Weather / Turbulence
Detector.Automation : Aircraft Other Automation
When Detected : In-flight
Result.General : Maintenance Action

Result.General : Flight Cancelled / Delayed
Result.Flight Crew : Overcame Equipment Problem
Result.Flight Crew : Returned To Departure Airport

Assessments

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

Narrative: 1

During the initial climb we had a ECAM caution AIR ENG1 BLEED ABNORM PR. Captain was the flying pilot. After ECAM actions completed. I was flying pilot. After the Captain's conversation with Maintenance and Dispatch. The Captain and company made the decision to return to ZZZ as part of the ECAM was to stay out of icing conditions. There were several thunderstorms in the area was difficult to stay out of known and unknown icing. At night. An overweight landing was made as per procedures in the QRH to a safe landing. Cause: A faulty Bleed. Mel. Suggestions: Have the bleed Mel cleared before dispatching.

Synopsis

A321 Captain reported abnormal bleed air pressure on left engine during climb. Captain returned to departure airport due to icing restrictions and made an overweight landing.