

ASRS Database Report Set

Altitude Deviations

Report Set Description.....A sampling of reports referencing altitude deviations
for all types of operations

Update Number.....35

Date of UpdateFebruary 7, 2024

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

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

National Aeronautics and
Space Administration

Ames Research Center
Moffett Field, CA 94035-1000



TH: 262-7

MEMORANDUM FOR: Recipients of Aviation Safety Reporting System Data

SUBJECT: Data Derived from ASRS Reports

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

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

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

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

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

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

Becky L. Hooey, Director
NASA Aviation Safety Reporting System

CAVEAT REGARDING USE OF ASRS DATA

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

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

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

Report Synopses

ACN: 2036602 *(1 of 50)*

Synopsis

Air carrier flight crew reported receiving a low altitude alert while descending on the BFL FASTO2 arrival. The crew expressed confusion over ATC's clearance verbiage, the lack of crossing restriction altitudes depicted other than MEA, and the operator's SOP for the conduct of the RNAV arrivals of this sort.

ACN: 2036150 *(2 of 50)*

Synopsis

Air carrier flight crew reported the new RUDHH3 STAR to MCI has a crossing restriction requiring a 800 foot descent in 1.8 miles with which the A319 cannot comply.

ACN: 2034127 *(3 of 50)*

Synopsis

A Tower Controller reported they received a Minimum Safe Altitude Warning for an aircraft on short final and advised the aircraft.

ACN: 2034009 *(4 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: 2033617 *(5 of 50)*

Synopsis

Pilot reported a NMAC event during landing pattern training with a non-reporting Beech Baron. Pilot took evasive action to avoid a collision and was resequenced for another approach.

ACN: 2033332 *(6 of 50)*

Synopsis

Air carrier crew reported a EGPWS warning during a go around in VMC conditions at a tower controlled airport. The crew flew the assigned ATC traffic pattern altitude and landed safely.

ACN: 2032999 *(7 of 50)*

Synopsis

Challenger 604 First Officer reported a NMAC with a small aircraft requiring evasive action that resulted in deviation from assigned altitude.

ACN: 2032793 *(8 of 50)*

Synopsis

U90 TRACON Controller reported a flight crew misinterpreted the minimum descent altitude of an approach segment to TUS which resulted in a low altitude alert and CFTT event. Controller stated the procedure seems to be causing some confusion among pilots.

ACN: 2032767 *(9 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: 2032638 *(10 of 50)*

Synopsis

Fractional flight crew reported visually misidentifying the destination airport and receiving a caution obstacle warning due to flying by a tower while on visual approach. Flight crew later received a warning they were below glide slope but continued the approach to landing.

ACN: 2032417 *(11 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: 2032403 *(12 of 50)*

Synopsis

Air carrier First Officer reported an altitude deviation during a visual approach to DRO airport resulting in a CFTT event. The crew disconnected the autopilot, initiated a climb and continued with the approach and landing.

ACN: 2031640 *(13 of 50)*

Synopsis

Air carrier flight crew reported ADC failure inflight causing temporary aircraft loss of control.

ACN: 2031581 *(14 of 50)*

Synopsis

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

ACN: 2031394 *(15 of 50)*

Synopsis

A Tower Controller reported a helicopter on an approach in marginal weather was disoriented and deviated from the approach course and below the published altitudes, causing the Tower to receive a low altitude alert.

ACN: 2030883 *(16 of 50)*

Synopsis

A TRACON Controller reported an aircraft descended below their assigned altitude and flew below the minimum vectoring altitude.

ACN: 2030843 *(17 of 50)*

Synopsis

Gulfstream IV flight crew reported while on autopilot the aircraft turned the wrong direction during an approach. While attempting to recover, the aircraft descended below the assigned altitude and flew below the Minimum Vectoring Altitude.

ACN: 2030717 *(18 of 50)*

Synopsis

EMB-175 flight crew reported ATC climbed them for terrain avoidance after they descended below a crossing restriction on a STAR.

ACN: 2030550 *(19 of 50)*

Synopsis

GA pilot reported they received a low altitude alert from P50 TRACON after they encountered a downdraft and descended from their assigned altitude near BXK VOR.

ACN: 2030512 *(20 of 50)*

Synopsis

Single Pilot reported a temporary flight control cable jam during initial climb which resulted in a course deviation and low altitude flight over hangers. Pilot reported fatigue as the primary cause of the errors.

ACN: 2029586 *(21 of 50)*

Synopsis

First Officer reported late runway change and mismanagement of RNAV resulted in descending too low and a CFTT event.

ACN: 2029379 *(22 of 50)*

Synopsis

Air carrier pilot flying reported GPS jamming in the area around BOI. The pilot crew eventually performed an ILS and visual approach to the runway because of the unreliable GPS signal.

ACN: 2029348 *(23 of 50)*

Synopsis

Fractional aircraft pilots reported a problem holding an assigned heading and altitude. Reporters stated was GPS testing in the area that may have contributed to the deviations.

ACN: 2029100 *(24 of 50)*

Synopsis

PC-12 pilot reported an NMAC event while on an IFR flight plan with an unknown aircraft on a collision course. The pilot executed an evasive maneuver which prevented a collision.

ACN: 2028563 *(25 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: 2028427 *(26 of 50)*

Synopsis

A300 flight crew reported a controlled flight toward terrain event while being vectored for a visual approach in smoky/hazy conditions. ATC issued a low altitude alert to crew who climbed back to the cleared altitude and subsequently made an uneventful landing.

ACN: 2028189 *(27 of 50)*

Synopsis

General aviation pilot reported performing a maintenance performance test flight, in a multi-engine aircraft and became distracted, and lost situational awareness to rising terrain. The pilot flew below FAR minimum altitude and corrected the altitude deviation.

ACN: 2028155 *(28 of 50)*

Synopsis

Air taxi pilot reported a near miss after takeoff in a climbing turn from a tower controlled airport in VMC conditions. The pilot followed the TCAS guidance, then once clear of the traffic, continued the flight.

ACN: 2028130 *(29 of 50)*

Synopsis

Corporate Pilot reported a traffic conflict in IMC conditions under ATC control. The Pilot initiated an immediate climb to provide separation from the traffic, then returned to altitude and continued the flight.

ACN: 2028114 *(30 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: 2028011 *(31 of 50)*

Synopsis

Air carrier First Officer reported a CFIT event during approach. The Captain intervened due to excursion below glide path.

ACN: 2027953 *(32 of 50)*

Synopsis

Air carrier relief pilot reported GPS jamming which caused an excursion from the assigned altitude.

ACN: 2027871 *(33 of 50)*

Synopsis

Air carrier First Officer reported a terrain obstacle warning while descending on a charted visual approach in daylight VMC conditions. The crew identified the obstacle, corrected the flight path, and landed safely.

ACN: 2027831 *(34 of 50)*

Synopsis

Air carrier Captain reported the autopilot suddenly pitched down after capturing the glideslope for Runway 28L at PDX. The pilot flying disconnected the AP and manually completed the approach. Upon further review it was discovered that the error was in the localizer signal.

ACN: 2027712 *(35 of 50)*

Synopsis

Air carrier pilot reported GPS jamming northwest of Solon intersection. The crew deviated from the assigned altitude and then returned after resetting the GPS system.

ACN: 2027345 *(36 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: 2027313 *(37 of 50)*

Synopsis

Air carrier First Officer reported a CFIT event on final approach while correcting to the proper glideslope. Flight crew received a pull up warning which prompted a go around procedure to a safe landing.

ACN: 2027298 *(38 of 50)*

Synopsis

Air carrier First Officer reported they inadvertently descended more than intended during short final approach which activated a glideslope warning. Pilot immediately corrected to the proper glideslope and landed safely.

ACN: 2027003 *(39 of 50)*

Synopsis

A TRACON Controller reported a Widebody descended below their assigned altitude and below the Minimum Vectoring Altitude.

ACN: 2026326 *(40 of 50)*

Synopsis

B737 flight crew reported receiving a ground proximity terrain warning during approach while descending below the minimum altitude. After hearing the ground proximity aural warning, the flight crew conducted a go-around to a safe landing.

ACN: 2026166 *(41 of 50)*

Synopsis

EMB-505 First Officer reported a loss of cabin pressure at cruise altitude and as the flight crew attempted to perform an emergency descent under ATC control, the aircraft completed the descent automatically. The flight crew was under high workload and descended below the level-off but got back to the correct altitude soon after.

ACN: 2025875 *(42 of 50)*

Synopsis

CRJ-900 pilot reported receiving a low altitude alert from ATC on final approach as a result of setting the altimeter incorrectly and descending too low. ATC issued current altimeter setting and flight crew climbed back to appropriate altitude to continue the approach.

ACN: 2025566 *(43 of 50)*

Synopsis

Air carrier crew reported receiving a low altitude alert from ATC while descending on the initial approach to MDW airport. The crew climbed back to assigned altitude and completed the approach.

ACN: 2025095 *(44 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: 2024777 *(45 of 50)*

Synopsis

B350 Captain reported a traffic conflict while departing from a parallel runway as ATC had issued a clearance that placed the reporter's aircraft in close proximity with another. ATC had assumed the reporter was going to turn to a left heading and failed to provide safe clearance between the two aircraft that were taking off from parallel runways.

ACN: 2024070 *(46 of 50)*

Synopsis

General aviation pilot reported a near miss with another aircraft during initial approach to PIE airport. The pilot identified the traffic on ADS-B, alerted ATC to the traffic, then initiated an immediate descent to avoid the conflict and told ATC the traffic had passed.

ACN: 2023954 *(47 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 *(48 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: 2023557 *(49 of 50)*

Synopsis

B737-700 flight crew reported experiencing wake turbulence while climbing to assigned altitude and proceeded to overshoot the altitude. ATC was informed and the Captain corrected the aircraft back to the assigned altitude.

ACN: 1984233 *(50 of 50)*

Synopsis

G550 Captain reported a wake turbulence encounter contributed to an altitude overshoot departing MCO in trail of a B757.

Report Narratives

Time / Day

Date : 202309

Local Time Of Day : 1801-2400

Place

Locale Reference.Airport : BFL.Airport

State Reference : CA

Altitude.MSL.Single Value : 9000

Environment

Light : Night

Aircraft

Reference : X

ATC / Advisory.TRACON : BFL

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

Nav In Use : FMS Or FMC

Flight Phase : Descent

Route In Use.STAR : FASTO2

Airspace.Class D : BFL

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 : Air Transport Pilot (ATP)

Qualification.Flight Crew : Instrument

Qualification.Flight Crew : Multiengine

ASRS Report Number.Accession Number : 2036602

Human Factors : Communication Breakdown

Human Factors : Confusion

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 Carrier

Function.Flight Crew : First Officer

Function.Flight Crew : Pilot Not Flying

Qualification.Flight Crew : Air Transport Pilot (ATP)

Qualification.Flight Crew : Multiengine
Qualification.Flight Crew : Instrument
ASRS Report Number.Accession Number : 2036608
Human Factors : Situational Awareness
Human Factors : Communication Breakdown
Human Factors : Confusion
Communication Breakdown.Party1 : Flight Crew
Communication Breakdown.Party2 : ATC

Events

Anomaly.ATC Issue : All Types
Anomaly.Deviation - Altitude : Crossing Restriction Not Met
Anomaly.Deviation - Altitude : Overshoot
Anomaly.Deviation / Discrepancy - Procedural : Published Material / Policy
Anomaly.Deviation / Discrepancy - Procedural : Clearance
Anomaly.Inflight Event / Encounter : CFTT / CFIT
Detector.Automation : Air Traffic Control
Detector.Person : Air Traffic Control
When Detected : In-flight
Result.Flight Crew : Returned To Clearance
Result.Air Traffic Control : Issued New Clearance
Result.Air Traffic Control : Issued Advisory / Alert

Assessments

Contributing Factors / Situations : Chart Or Publication
Contributing Factors / Situations : Company Policy
Contributing Factors / Situations : Human Factors
Contributing Factors / Situations : Manuals
Contributing Factors / Situations : Procedure
Primary Problem : Procedure

Narrative: 1

We were given the following clearance from ATC during a dark night time descent with the FASTO2 arrival on our route clearance: "Cross PMD at 14,000... cleared approach into Bakersfield" with no approach name or approach type specified in the clearance, but we were previously told to expect the RNAV 30R approach which we were set up for and had briefed. I put an altitude constraint of 14,000 into the box at PMD. We had already verified all published constraints on the STAR and RNAV 30R approach (STAR has no altitude constraints). I set 2500 into the altitude window (FAF altitude on the RNAV 30R), pushed managed descent, and armed the approach. We crossed PMD at 14,000 and immediately after PMD we went into Final App [mode] on the FMA and I called "Set Missed Approach Altitude." Approach was continued in Final App and gradual speed reduction was initiated. At 8800 MSL we received from ATC "low altitude alert, check altitude immediately" with the local altimeter setting. ATC then asked us to verify we are descending "via the FASTO2 descent profile and "maintain 10,000 to KELEN." We were not yet at KELEN. I immediately set 10,000 into the altitude window and selected open climb. We leveled off at 10,000. I set 2500 into the window again, waited till KELEN then pushed managed descent again. The Prog page showed us 4300 feet high of the profile at this point so I called for gear down and used full speed brake to return to profile and we re-intercepted Final App. We were still 15 miles out so plenty of time to return to profile although from 10,000 to 3500 at FASTO is a very steep descent. We configured normally and landed on 30R with an uneventful landing. After parking at the gate we didn't understand the request to verify we

were descending via the FASTO2 descent profile as there are no magenta altitude constraints on the STAR nor did we get a descend via clearance. There are only altitudes for NAV reception and minimum segment altitudes. We don't normally don't enter minimum segment altitudes into the box as constraints so we weren't sure what he was talking about. Then we looked at the terrain contours at the gate and clearly 8800 feet where we were is too low. We complied with the 14,000 at PMD, and also met all published constraints on the RNAV 30R approach. We were in Final App and followed it down. A few seconds before the low altitude alert, my FO (First Officer) spoke up and said he didn't like it but he wasn't sure why. Seconds later we received the low altitude alert and immediately climbed to 10,000. We never got a radar altimeter nor an EGPWS but believe we were on a descent path to get both. I find this arrival to be safety concern. Cause - I've never seen Final App take me into terrain before so I can only conclude 1 of 2 things needs to happen here. Either the Controller should have assigned us radar descent altitudes for the area we were in, or there should be magenta constraints on the STAR if the Controller is expecting us to descend via a descent profile. Neither of which existed. I was also under the impression that Final App protects us with regards to terrain clearance when all ATC issued altitude constraints and all published STAR and Approach constraints are in the box correctly. Everything looked correct to me and yet we ended up 1200 below a segment altitude with a low altitude alert. Suggestions - Looking at other STARs into other airports with terrain on the descent route (such as Sacramento as an example arriving from the east), there are usually magenta constraints to protect your terrain clearance. I don't understand why this arrival doesn't have at least 1. Obviously ATC issued descent altitudes would have solved this issue since you can't descend via on this arrival but yet the Controller was expecting us to comply with the minimum segment altitudes on the arrival on our own. I also thought that once in Final App those minimum segment altitudes were protected. Here they were not.

Narrative: 2

Around XA10 PDT, cleared on FASTO 2 into BFL. Direct PMD at 14,000. Approach gave us "cleared approach into Bakersfield". We crossed PMD at 14,000 - armed/activated the RNAV for 30R, verified Final App [mode] and then started down on the FMS path. Both arrival and approach verified as correctly loaded. I was PM. It seemed odd there were no altitude constraints on the FASTO, I felt a bit uncomfortable and asked the PF what was guaranteeing terrain clearance. Discussed, and since there were no further constraints the RNAV path should keep us safe with our clearance. Got an "altitude alert" from ATC and an additional clearance to climb and maintain 10000 until KELEN. Lowest I saw was around 9000. Climbed back up to 10000, descended at KELEN and reintercepted the RNAV, landed uneventfully. Cause - The FASTO doesn't have any altitude constraints - but it does have an MEA. I think the Controller expected us to descend via those altitudes (which matched what he gave us later). However, I've never heard of or been trained on loading anything other than published constraints. My best guess was it was a bad clearance, but even after talking about it for two days we couldn't precisely determine where the problem was. We never got particularly close to the terrain, but definitely could have on another day, would definitely like to learn what the issue was and help make sure doesn't happen to anyone else. Suggestions - Frankly, unsure. Possibly update the STAR with constraints (like LAX or the other west coast airports).

Synopsis

Air carrier flight crew reported receiving a low altitude alert while descending on the BFL FASTO2 arrival. The crew expressed confusion over ATC's clearance verbiage, the lack of crossing restriction altitudes depicted other than MEA, and the operator's SOP for the conduct of the RNAV arrivals of this sort.

Time / Day

Date : 202309

Place

Locale Reference.ATC Facility : MCI.TRACON

State Reference : MO

Altitude.MSL.Single Value : 3300

Environment

Flight Conditions : VMC

Weather Elements / Visibility : Haze / Smoke

Aircraft

Reference : X

ATC / Advisory.Center : ZKC

ATC / Advisory.TRACON : MCI

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

Airspace.Class B : MCI

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

Experience.Flight Crew.Total : 14076.48

Experience.Flight Crew.Last 90 Days : 44.7

Experience.Flight Crew.Type : 13088.33

ASRS Report Number.Accession Number : 2036150

Human Factors : Workload

Human Factors : Human-Machine Interface

Human Factors : Time Pressure

Person : 2

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 : Multiengine

Qualification.Flight Crew : Air Transport Pilot (ATP)
Qualification.Flight Crew : Instrument
Experience.Flight Crew.Total : 15245.70
Experience.Flight Crew.Last 90 Days : 191.67
Experience.Flight Crew.Type : 12035.65
ASRS Report Number.Accession Number : 2036156
Human Factors : Time Pressure
Human Factors : Human-Machine Interface
Human Factors : Workload

Events

Anomaly.Deviation - Altitude : Crossing Restriction Not Met
Anomaly.Deviation - Altitude : Undershoot
Anomaly.Deviation / Discrepancy - Procedural : Published Material / Policy
Anomaly.Deviation / Discrepancy - Procedural : Clearance
Detector.Automation : Aircraft Other Automation
Detector.Person : Flight Crew
When Detected : In-flight
Result.Flight Crew : Requested ATC Assistance / Clarification

Assessments

Contributing Factors / Situations : Chart Or Publication
Contributing Factors / Situations : Software and Automation
Contributing Factors / Situations : Procedure
Primary Problem : Procedure

Narrative: 1

Flying the RUDDH3 arrival from over BULET. ATC kept us high due to crossing traffic below us and then slowed us during the descent. When they gave us a descent clearance we were almost 6,000 ft. above profile. I had briefed and planned arrival to 19L based on Captains most recent experience there. During descent we were cleared to descend via "landing south". On the chart there are two profiles landing south. Both have bottom altitudes of 4,000 ft. but different routing. I have never been given a descend via clearance without know what my routing is. I believe that is a very sloppy clearance. We queried ATC and he said they have had many pilots question it. Just before RUDDH we were handed off to approach and assigned 19R. Despite being left high and speed restricted at 270 knots I was able to make the crossing restriction of 12,000 at RUDDH. In the meantime the PM (pilot Monitoring) is loading 19R and I am reviewing then briefing the ILS approach to 19R. Just before SCIPR we are cleared for the ILS19R. Since I had a managed descent going the PM put 2400 ft. in the altitude window for PEAKA. We did have a "too steep" message on FMGC after BRTNY and I planned to just use speed brakes and turn off automation if needed. The ILS 19R JEPP 41-5 page is overly crowded and difficult to read with too many ball notes. I did note all the appropriate ball notes and restrictions with those. We crossed SCIPR at 210 knots 4,000 ft. Then on the autopilot descended to 3300 ft. and slowed to 180kts as we approached BRTNY. We crossed BRTNY at 3300 ft. After that, the profile was too steep to lose 800 ft. in just 1.8 miles. I turned off the autopilot and used full speed brakes to make the mandatory altitude of 2500 ft. at MADTG. But it was still not enough we crossed MADTG 200 ft., 300 ft. high. This was all happening as the glideslope is centering and we are trying to visually pick up the airport in the haze. This segment from BRTNY to MADTG is too steep for such a short distance. To lose 800 ft. in 1.8nm can be difficult and there is no way a managed descent on autopilot can make that. If there is a tailwind it is very challenging.

Narrative: 2

Our flight was filed into MCI via the RUDDH 3 RNAV Arrival Dated 4 AUG 23 with the BULET Transition. Our flight was cleared to "Descend Via the RUDDH 3 Arrival Landing South". The RUDDH 3 is a newly revised STAR, and the clearance is rather confusing. After passing the PAHLL intersection, one would have to fly a different transition depending on if they were landing on Runway 19L or 19R. When we queried the Kansas City Center controller which runway transition he would like us to fly, his response was "Pick a runway because you will not get a runway assignment until closer in when you're talking to Approach". We elected to select and brief the Runway 19L transition on the STAR. Shortly before passing the RUDDH intersection we handed off to Approach and subsequently assigned the ILS Runway 19R. The Runway change also required us to re-brief the STAR while we also re-briefed the approach for our new runway 19R. On our arrival today, ATC left us high due to another aircraft in our vicinity, taking our attention from the required briefings. Our next issue was when flying the ILS 19R approach dated 18 AUG 23. Approach cleared us "after passing SCIPR you are cleared for the ILS 19R approach". The approach plate shows several mandatory crossing altitudes. The most challenging being BRTNY intersection (9.1 IPAJ DME) at 3,300 ft. followed by a steep rate of descent so as to cross MADGT intersection (7.3 IPAJ DME) at a Mandatory 2,500 ft. MSL. This is an 800 foot altitude loss with only 1.8nm to do it. Today we were flying an A319 at 180 knots and at Flaps 2 with the Autopilot off in a 5 knot headwind component. We tried our best to make this crossing only to be task saturated shortly afterwards because the Glideslope Intercept is only 1 nm later at the PEAKA intersection at 2,400 ft. There is too much going on in this approach for an airport that doesn't have airspace restrictions. This approach is a CAT III capable approach. I don't believe the autopilot in the Airbus or any transport category aircraft at my airline could have made MADTG at 2,500 ft. while beginning a descent after crossing BRTNY at 3,300 ft.

Synopsis

Air carrier flight crew reported the new RUDHH3 STAR to MCI has a crossing restriction requiring a 800 foot descent in 1.8 miles with which the A319 cannot comply.

Time / Day

Date : 202309

Local Time Of Day : 0001-0600

Place

Locale Reference.Airport : ZZZ.Airport

State Reference : US

Altitude.MSL.Single Value : 800

Environment

Flight Conditions : IMC

Light : Night

Aircraft : 1

Reference : X

ATC / Advisory.Tower : ZZZ

Aircraft Operator : Air Carrier

Make Model Name : B737 Next Generation Undifferentiated

Crew Size.Number Of Crew : 2

Operating Under FAR Part : Part 121

Flight Plan : IFR

Mission : Passenger

Flight Phase : Final Approach

Route In Use.Other

Airspace.Class B : ZZZ

Aircraft : 2

Reference : Y

ATC / Advisory.Tower : ZZZ

Aircraft Operator : Air Carrier

Make Model Name : A380

Crew Size.Number Of Crew : 2

Operating Under FAR Part : Part 121

Flight Plan : IFR

Mission : Passenger

Flight Phase : Taxi

Person

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) : 23

Experience.Air Traffic Control.Time Certified In Pos 1 (mon) : 8

ASRS Report Number.Accession Number : 2034127

Human Factors : Training / Qualification

Human Factors : Workload

Human Factors : Human-Machine Interface

Events

Anomaly.ATC Issue : All Types
Anomaly.Deviation - Altitude : Overshoot
Anomaly.Deviation / Discrepancy - Procedural : Published Material / Policy
Anomaly.Ground Event / Encounter : Ground Equipment Issue
Anomaly.Inflight Event / Encounter : CFTT / CFIT
Detector.Automation : Air Traffic Control
Detector.Person : Air Traffic Control
When Detected : In-flight
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
Primary Problem : Human Factors

Narrative: 1

This was a [runways] XXL/XXR Right Turns IFR weather, but not protecting the critical areas. I was seeing the aircraft around 1,000 ft with a reported ceiling of 800 ft broken as well as 1,000 ft broken. Visibility was 10 miles and it was night time. The wind was around 240 at 15 gusting 20. A super A380 was taxiing out for departure, and I observed a large enough staggered space between departing Runway XXL, crossing over the super and departing Runway XXR, while having enough spacing between the Left and Right arrivals. On Local Assist was a Local Assist certified, however still in training on Local controller. I asked them to call over to the finals controller to advise all aircraft on approach that an A380 would be traversing the glideslope critical area. They made the call. Aircraft X had not yet checked in inside of the final approach fix. I reached out to see if they were there. They were. I advised Aircraft X of the A380 going to pass through the glideslope critical area and suggested hand flying the approach for the signal disruption. They thanked me for the advisory. When the A380 was clearing the critical area, I received a low altitude MSAW warning. I keyed up and stated, "Low altitude alert, Aircraft X check your rate of descent, 2 1/2 miles from touchdown and 800 ft" and assigned the current altimeter setting. I received no reply, however the MSAW stopped. The flight landed and was advised to exit the Runway at taxiway 1 or taxiway 2 and contact Ground. They acknowledged and never said a thing about the altitude on approach. This should be taught NAS wide to cover the circumstances when an aircraft will not have the signal integrity protection they expect. I was glad for the opportunity to show a newer controller how to coordinate this type of critical area penetration coordination, when not protecting, hoping that they will do so in the future.

Synopsis

A Tower Controller reported they received a Minimum Safe Altitude Warning for an aircraft on short final and advised the aircraft.

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 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.

Time / Day

Date : 202309
Local Time Of Day : 1201-1800

Place

Locale Reference.ATC Facility : ZZZ.Tower
State Reference : US
Altitude.MSL.Single Value : 1500

Environment

Flight Conditions : VMC
Light : Daylight

Aircraft : 1

Reference : X
Make Model Name : PA-28R Cherokee Arrow All Series
Crew Size.Number Of Crew : 1
Flight Plan : VFR
Mission : Training
Flight Phase : Initial Approach

Aircraft : 2

Reference : Y
Aircraft Operator : Personal
Make Model Name : Beechcraft Twin Turboprop or Jet Undifferentiated or Other Model
Crew Size.Number Of Crew : 1
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 : FBO
Function.Flight Crew : Single Pilot
Qualification.Flight Crew : Instrument
Qualification.Flight Crew : Private
ASRS Report Number.Accession Number : 2033617
Human Factors : Workload
Human Factors : Time Pressure

Events

Anomaly.Conflict : NMAC
Anomaly.Deviation - Altitude : Excursion From Assigned Altitude
Anomaly.Deviation / Discrepancy - Procedural : Published Material / Policy
Anomaly.Deviation / Discrepancy - Procedural : Clearance
Detector.Automation : Aircraft TA

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

Assessments

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

Narrative: 1

At approximately XA:30, I was ending my 1 mile extended upwind and began my crosswind turn to enter right traffic as per ATC instruction. Right around this was happening, a Baron who had been coming in for a full stop (Aircraft Y) went around. He reported he was going to side step to the right, keep in mind traffic is going both left and right downwind. ATC directed the aircraft to continue flying west bound. As I am leveling off to enter the downwind, I get a "traffic, traffic" alert on the TCAS and it shows him on a collision course at -100 feet below me. I immediately applied full power and did a left turn as he was coming from my 45 degree on the right. I climbed to approximately 1800 feet and was able to avoid the aircraft and got re-sequenced. After this happened, Tower made all traffic pattern aircraft full stop. Aircraft Z then asked on the ground why we full stopped and taxied back to [Runway] XX and Tower said it was because of the Baron that was just then landing. The whole incident is shown on flight radar at XE:27 UTC. The Baron was causing issues such as lack of communication and awareness before entering the Delta airspace

Synopsis

Pilot reported a NMAC event during landing pattern training with a non-reporting Beech Baron. Pilot took evasive action to avoid a collision and was resequenced for another approach.

Time / Day

Date : 202309

Local Time Of Day : 1801-2400

Place

Locale Reference.ATC Facility : CHA.Tower

State Reference : TN

Altitude.MSL.Single Value : 2300

Environment

Flight Conditions : VMC

Light : Daylight

Aircraft : 1

Reference : X

ATC / Advisory.Tower : CHA

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

Route In Use : Visual Approach

Aircraft : 2

Reference : Y

ATC / Advisory.Tower : CHA

Make Model Name : Small Aircraft

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 : 2033332

Human Factors : Communication Breakdown

Human Factors : Situational Awareness

Human Factors : Time Pressure

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
Function.Flight Crew : Pilot Flying
Qualification.Flight Crew : Air Transport Pilot (ATP)
Qualification.Flight Crew : Multiengine
Qualification.Flight Crew : Instrument
ASRS Report Number.Accession Number : 2033325
Human Factors : Time Pressure
Human Factors : Communication Breakdown
Human Factors : Situational Awareness
Communication Breakdown.Party1 : Flight Crew
Communication Breakdown.Party2 : Flight Crew

Events

Anomaly.Conflict : Ground Conflict, Critical
Anomaly.Deviation - Altitude : Overshoot
Anomaly.Deviation / Discrepancy - Procedural : Published Material / Policy
Anomaly.Inflight Event / Encounter : CFTT / CFIT
Detector.Automation : Aircraft TA
Detector.Person : Flight Crew
When Detected : In-flight
Result.Flight Crew : Executed Go Around / Missed Approach
Result.Flight Crew : FLC complied w / Automation / Advisory

Assessments

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

Narrative: 1

On visual approach Runway 20 at CHA (backed up by ILS) flaps 45 and stable with landing checklist complete during daytime visual meteorological conditions. A single engine piston landed while we were about 5 miles. They rolled out slowly and Tower instructed them to exit the runway without delay when we were on a two mile final. Airplane instead stopped on the runway. Approaching 300 AGL the Captain PF (pilot flying) elected to execute a go around. Tower assigned a pattern altitude of 2000MSL. During the go around we climbed 2500 before descending to 2300. During the descent to 2300, we received a "terrain" annunciation likely due to our rate of descent. Captain flew a pattern and landed without incident. Cause: Flying a wide pattern with rising terrain nearby, a lower than standard traffic pattern altitude assigned by tower and the rarity of performing go arounds led to a momentary egpws caution. Suggestion: We would have been better off going out to approach to be vectored at a higher altitude rather than staying in a wide pattern.

Narrative: 2

We performed a Go-Around on visual approach to Runway 20 at 300 AGL due to a GA aircraft ahead of us stopping on the runway. During the Go-Around, we stayed on Tower frequency and flew a left pattern of 2300 ft. MSL. On downwind, while setting the flight director, we temporarily had a single aural "Terrain" warning due to too much set vertical

decent rate. It went away once it was corrected and I had been flying without Autopilot until it was configured correctly to prevent any terrain conflicts. I continued the pattern and landed without any other issues. Cause: Rising terrain while descent rate selected. Suggestion: Going back to approach could have given us a higher altitude.

Synopsis

Air carrier crew reported a EGPWS warning during a go around in VMC conditions at a tower controlled airport. The crew flew the assigned ATC traffic pattern altitude and landed safely.

Time / Day

Date : 202309

Local Time Of Day : 0601-1200

Place

Altitude.MSL.Single Value : 2000

Environment

Flight Conditions : VMC

Light : Daylight

Aircraft : 1

Reference : X

ATC / Advisory.Tower : ZZZ

Aircraft Operator : Corporate

Make Model Name : Challenger CL604

Crew Size.Number Of Crew : 2

Operating Under FAR Part : Part 135

Flight Plan : IFR

Mission : Passenger

Flight Phase : Initial Climb

Route In Use : Vectors

Aircraft : 2

Reference : Y

Make Model Name : Bonanza 33

Crew Size.Number Of Crew : 1

Flight Phase : Initial Climb

Person

Location Of Person.Aircraft : X

Location In Aircraft : Flight Deck

Reporter Organization : Corporate

Function.Flight Crew : Pilot Not Flying

Function.Flight Crew : First Officer

Experience.Flight Crew.Total : 1633

Experience.Flight Crew.Last 90 Days : 97

Experience.Flight Crew.Type : 500

ASRS Report Number.Accession Number : 2032999

Events

Anomaly.Conflict : NMAC

Anomaly.Deviation - Altitude : Excursion From Assigned Altitude

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

Anomaly.Deviation / Discrepancy - Procedural : Clearance

Detector.Automation : Aircraft RA

Miss Distance.Horizontal : 500

Miss Distance.Vertical : 500
Result.Flight Crew : Took Evasive Action

Assessments

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

Narrative: 1

VFR Departure off runway X, Captain was PF (Pilot Flying) and I am the PNF/PM (Pilot Not Flying/Pilot Monitoring) and First Officer. We were flying runway heading to assigned 2,000 ft. and lots of GA traffic in the area and on the radio. Upon initial climbout, we received a RA at the same time Tower handed us off to departure. A Bonanza did not follow directions issued by Tower, generating the RA. Captain continued the climb per the RA and above the 2,000 ft. assigned. We managed the threat, and once clear of conflict Captain descended back to assigned 2,000 ft. I then checked on with Departure notifying them of an RA. Captain also requested I flip back to Tower where he notified them of the RA and the reason we climbed past assigned altitude. We went back to Departure and continued flight.

Synopsis

Challenger 604 First Officer reported a NMAC with a small aircraft requiring evasive action that resulted in deviation from assigned altitude.

Time / Day

Date : 202309
Local Time Of Day : 0001-0600

Place

Locale Reference.Airport : TUS.Airport
State Reference : AZ
Relative Position.Angle.Radial : 120
Relative Position.Distance.Nautical Miles : 26
Altitude.MSL.Single Value : 7400

Aircraft

Reference : X
ATC / Advisory.TRACON : U90
Aircraft Operator : Air Carrier
Make Model Name : Medium Large Transport, Low Wing, 2 Turbojet Eng
Crew Size.Number Of Crew : 2
Operating Under FAR Part : Part 121
Flight Plan : IFR
Mission : Passenger
Nav In Use : FMS Or FMC
Flight Phase : Initial Approach
Airspace.Class C : TUS

Person

Location Of Person.Facility : U90.TRACON
Reporter Organization : Government
Function.Air Traffic Control : Approach
Qualification.Air Traffic Control : Fully Certified
Experience.Air Traffic Control.Radar : 14
ASRS Report Number.Accession Number : 2032793
Human Factors : Situational Awareness

Events

Anomaly.Deviation - Altitude : Crossing Restriction Not Met
Anomaly.Deviation - Altitude : Overshoot
Anomaly.Deviation / Discrepancy - Procedural : Published Material / Policy
Anomaly.Deviation / Discrepancy - Procedural : Clearance
Anomaly.Inflight Event / Encounter : CFTT / CFIT
Detector.Automation : Air Traffic Control
Detector.Person : Air Traffic Control
When Detected : In-flight
Result.Flight Crew : Returned To Clearance
Result.Air Traffic Control : Issued Advisory / Alert

Assessments

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

Narrative: 1

I had relieved the previous Controller who had cleared Aircraft X for the RNAV/GPS-Z to runway 29R. Aircraft X was descending on the approach from JOKIM to the next waypoint VEDTU. The published altitude for the approach between JOKIM and VEDTU is 7800 ft. I observed Aircraft X at 7500 ft. and they appeared to not be at VEDTU yet. I pulled up the map for the RNAV/GPS-Z for 29R and Aircraft X was approximately 3 miles from VEDTU now at 7400 ft. I issued a low altitude alert to Aircraft X advising of the MDA (Minimum Descent Altitude) being 7800 ft. for the segment of the approach. Aircraft X began to level at approximately 7000 ft., and I asked Aircraft X if they had the terrain in sight. They replied in the affirmative. At this point they were over VEDTU and on the next segment of the approach that allows descent to 5300 ft. I asked Aircraft X if they wanted to be broken off the approach and climbed or if they wanted to continue. They stated they wanted to continue the approach. I advised Aircraft X that the MDA for the segment from VEDTU to ATOGE was 5300 ft. They had stated they "see that now". I did not issue a climb to Aircraft X because the terrain in the area is well below the published altitudes and they were in a 7200 ft. MVA (Minimum Vectoring Altitude) when they were at 7400 ft. This approach plate seems to be confusing to pilots. This descent to a lower altitude than published on that segment of the approach happens fairly often as of late. If there is a way to make the altitude more clear to pilots for each segment that would be beneficial. As of right now there is a small "7800" just over the leg between VEDTU and JOKIM. The profile view only references ATOGE at 5300 ft. Some way to draw attention to the step down fixes on the approach I believe would help pilots.

Synopsis

U90 TRACON Controller reported a flight crew misinterpreted the minimum descent altitude of an approach segment to TUS which resulted in a low altitude alert and CFTT event. Controller stated the procedure seems to be causing some confusion among pilots.

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 call 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. below 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.

Time / Day

Date : 202309

Local Time Of Day : 1201-1800

Place

Locale Reference.Airport : ZZZ.Airport

State Reference : US

Altitude.MSL.Single Value : 3400

Aircraft

Reference : X

ATC / Advisory.UNICOM : ZZZ

Aircraft Operator : Fractional

Make Model Name : Cessna Citation Undifferentiated or Other Model

Crew Size.Number Of Crew : 2

Operating Under FAR Part : Part 91

Flight Plan : IFR

Mission : Passenger

Flight Phase : Initial Approach

Airspace.Class E : ZZZ

Person : 1

Location Of Person.Aircraft : X

Location In Aircraft : Flight Deck

Reporter Organization : Fractional

Function.Flight Crew : Pilot Not Flying

Function.Flight Crew : First Officer

ASRS Report Number.Accession Number : 2032638

Human Factors : Communication Breakdown

Human Factors : Confusion

Human Factors : Human-Machine Interface

Human Factors : Situational Awareness

Human Factors : Workload

Human Factors : Distraction

Communication Breakdown.Party1 : Flight Crew

Communication Breakdown.Party2 : Flight Crew

Person : 2

Function.Flight Crew : Pilot Flying

Function.Flight Crew : Captain

ASRS Report Number.Accession Number : 2032639

Human Factors : Situational Awareness

Human Factors : Workload

Human Factors : Communication Breakdown

Human Factors : Confusion

Human Factors : Human-Machine Interface

Communication Breakdown.Party1 : Flight Crew

Communication Breakdown.Party2 : Flight Crew

Events

Anomaly.Deviation - Altitude : Excursion From Assigned Altitude
Anomaly.Deviation / Discrepancy - Procedural : Published Material / Policy
Anomaly.Inflight Event / Encounter : Unstabilized Approach
Anomaly.Inflight Event / Encounter : CFIT / CFIT
Detector.Automation : Aircraft Terrain Warning
When Detected : In-flight
Result.General : None Reported / Taken

Assessments

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

Narrative: 1

I was PM and I am currently a SIC. This day was my second day on tour after being signed off from IOE. The flight from ZZZ1 to ZZZ was our second flight to the field that day with the same routing. Upon descent myself and the PF called the field in sight with approach. We swapped to advisory Unicom and canceled IFR and commenced visual approach to runway XX backed up by the RNAV runway XX in the FMS. We briefed at pattern altitude of 4300ft and ZZZZ at 3460ft on the RNAV rwy XX approach. The field was busy with flight training and corporate travel that day which was also . Other aircraft were using runway XY, a crosswind runway almost 90 degrees to runway XX. Runway XY was a shorter runway and we picked runway XX for a longer runway length. The winds were between 190 and 180 @ 8 knots gusting to 18 and the winds had also been gusting in the left crosswind earlier that day. We were both vigilant for traffic in the area. We were set up on a track to the field from the southeast. The PF lost sight of the field and had thought the field was on the south side of highway X. The field was actually to the south of another similarly configured highway Y 2 miles north of the road (highway X) We also had the range ring zoomed out on the MFD and had usually had the range zoomed in a little more. I had the field still in sight and started to point the field out to the PF. During that time while calling out where the field was to our location keeping the field and traffic insight we started to descend using vertical speed with the auto pilot engaged like we were landing for runway XX. When I called the field out again we got a caution obstacle warning at around 3400ft MSL on the altimeter. The obstacle was a tower in the area. This altitude is close to the altitude we briefed for ZZZZ at 3460 ft on the RNAV runway XX approach. The PF immediately disengaged the autopilot added power and we climbed. The PF got the field in sight and we flew north to turn final onto runway XX. During the visual approach to the runway we got glide slope warning due to being under the glide slope. We were stabilized at 500ft and commenced the landing in a crosswind. After we taxied to parking and the passengers left the aircraft we debriefed what had just happened on the approach. I should have corrected the PF/PIC and told him to climb to pattern altitude and extend his base turn to the final approach fix and maybe a go around. Reset up for another approach. That would have fixed the issue of descending too low and being too low on the glide path and also his loss of situational awareness with where the landing field was. I should have zoomed the MFD display in for him but being task saturated distracted me. I should have questioned him more thoroughly when we asked where the airport was the first time. My lack of time with the PF could have been a contributing factor. If you don't like something say something. We did have a good debrief on ground and after our flights for the day about what we should have done and that is a valuable tool to learn from these situations.

Narrative: 2

I'm PIC and flying, 4th of 5 flights this second day of Tour. This was my second leg of the day, flying the exact routing we had previously that morning (almost directly straight routing). My recollection, it had been about 3 years since flying into ZZZ, and I had known it to be a difficult airport to spot amongst the city and roads leading to it - and had briefed that to the SIC earlier that morning. Both flights routing brought us in southeast of the airport. Once approach cleared us for the visual I "HDG-ing bugged" us to a north turn to start lineup for runway. I had managed the MFD range ring to view ZZZZZ1 and ZZZZZ on the RNAV Rwy XX that we had loaded and briefed. I saw a set of roads/ highway that I thought had led into the airport, same as I had done first flight that day to the same airport. Glanced at the MFD range ring, saw I was inside ZZZZZ1 so knew I had to descend towards 3500 ft. towards ZZZZZ, which I did with VS (vertical speed wheel). About that time, I then told the SIC I don't have the runway (when previous to this time I was confident it would be more clearly in view once again, once I got my bearing). He pointed across my windscreen that "the airport is over there." Now I realized we were not where we were supposed to be, I then hand flew and continued (muddling) north (with runway now in clear view), now hand flying to try and lineup for runway. Suddenly get a "caution terrain" call. I added power and started a climb and saw the tower below us (seeing we were clear of and knowing why we got the caution call). By now I definitely see the similar set of roads and definitely the runway. Once lined up on final, get a "Glideslope, glideslope" call. Climbed a little bit, more, was seeing visually clear. I believe we were stable at 500 ft. (and recollect he called that out), all the while still lining up and correcting for strong southerly crosswind. Felt stable and with correct crab, airspeed, and configuration for landing - though now I'm a bit embarrassed, but disciplined, determined that all was correct for landing. Landed correctly, normal taxi, shutdown, passengers deplaned. One passenger commented and thanked me for getting low across the pipeline to help avoid those gusty bumps (was turbulent on descent because of local winds). Passengers were company X management. Copilot and I debriefed this event about three times yesterday and this morning. Last night before bed thought we better submit reports on this event. Viewing VFR Sectional, I now realize I thought highway X was highway Y Loop. Corrective action should have been immediate climb to pre-brief VFR pattern altitude 4300 ft. (in this very flat area, a safe maneuvering altitude) probably with re-engagement of autopilot to help stabilize, possibly a "Go-around" if not on proper standards for the visual approach. First set of passengers that day had said their company pilots they used to have before our company, didn't want to land ZZZ because of usual strong crosswinds and fear of wingtip strike upon landing - and asked if we prefer ZZZ2, which I responded, yes as a pilot preference, but it's (also) up to your preference (as Owners). Gustier, stronger, crosswinds had been encountered during the morning flight. Crosswinds we're strong this flight but not as variable gust. If disorientated, immediately climb to pre-briefed pattern altitude (terrain dependent). Better NavAid backup, and fly from final approach fix, an available instrument approach - which there was in this case, versus attempting to join shorter final completely VFR.

Synopsis

Fractional flight crew reported visually misidentifying the destination airport and receiving a caution obstacle warning due to flying by a tower while on visual approach. Flight crew later received a warning they were below glide slope but continued the approach to landing.

Time / Day

Date : 202309

Place

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

Environment

Weather Elements / Visibility : Thunderstorm

Aircraft : 1

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 : ZZZ

Aircraft : 2

Reference : Y
ATC / Advisory.Center : ZZZ
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 : 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 : Air Transport Pilot (ATP)
Qualification.Flight Crew : Instrument
Qualification.Flight Crew : Multiengine
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 : Pilot Flying
Function.Flight Crew : Captain
Qualification.Flight Crew : Multiengine
Qualification.Flight Crew : Instrument
Qualification.Flight Crew : Air Transport Pilot (ATP)
ASRS Report Number.Accession Number : 2032418
Human Factors : Workload
Human Factors : Time Pressure
Human Factors : Distraction
Human Factors : Confusion
Human Factors : Communication Breakdown
Human Factors : Situational Awareness
Communication Breakdown.Party1 : Flight Crew
Communication Breakdown.Party2 : ATC

Person : 3

Location Of Person.Facility : ZZZ.TRACON
Reporter Organization : Government
Function.Air Traffic Control : Approach
Qualification.Air Traffic Control : Fully Certified
Experience.Air Traffic Control.Time Certified In Pos 1 (yrs) : 9
ASRS Report Number.Accession Number : 2031405
Human Factors : Workload
Human Factors : Time Pressure
Human Factors : Situational Awareness
Human Factors : Communication Breakdown
Human Factors : Confusion
Communication Breakdown.Party1 : ATC
Communication Breakdown.Party2 : Flight Crew

Person : 4

Location Of Person.Facility : ZZZ.ARTCC
Reporter Organization : Government
Function.Air Traffic Control : Enroute
Qualification.Air Traffic Control : Fully Certified
Experience.Air Traffic Control.Time Certified In Pos 1 (yrs) : 2
ASRS Report Number.Accession Number : 2031406
Human Factors : Workload
Human Factors : Time Pressure
Human Factors : Situational Awareness
Human Factors : Communication Breakdown
Human Factors : Confusion
Communication Breakdown.Party1 : ATC
Communication Breakdown.Party2 : Flight Crew

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 ZZZZ 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 ZZZZ. 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 ZZZZ and we normally cross ZZZZ 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.

Narrative: 3

Aircraft Y began flashing on my scope around 15000 [ft.] and I accepted a radar handoff. Shortly thereafter company Aircraft X checks in. Aircraft X was not on my scope and I missed that an incorrect call sign had checked in. Assuming Aircraft Y was the one who checked in, I instructed Aircraft Y (correct aircraft) to descend and maintain 10000 and advise when they got the current ATIS. The Aircraft X pilot read back the control instructions with out using a their call sign. Meanwhile, Aircraft Y whom I thought I was talking to continues to descend, making me believe he has received my instructions. Center then gives me a call and asks if I am talking to Aircraft X and I respond that I have Aircraft Y on frequency. He then explains that he believes the wrong aircraft switched to me and I have Aircraft X and not Aircraft Y. I scroll out and see that Aircraft X is flashing to me and is at an unsafe altitude (10700) for the MVA's (12000). Not yet sure if I do in fact have the wrong aircraft I reach out and instruct Aircraft X to climb immediately to 12000 to which he replies. Traffic was slow and I let expectation bias and a lack of catching the incorrect call sign on initial contact to place aircraft in an unsafe situation. This was a perfect swiss cheese model where multiple controllers and the pilots failed to catch a developing situation. I failed to catch the incorrect call sign on initial check-in. Aircraft X continued to take control instructions when all instructions were given to Aircraft Y. Center shipped me the incorrect aircraft, never told the two aircraft about similar sounding call signs, and did not catch that they had Aircraft X descending in their airspace to an unsafe altitude until well below the MVA. I missed that the wrong aircraft checked in and let expectation bias and lack of proper hearback/readback contribute to an unsafe situation. I assigned all control instructions to the correct intended aircraft but failed to verify when the pilot was responding without using their call sign. This was definitely a wake up call to be more vigilant.

Narrative: 4

I was working Aircraft X and Aircraft Y from the east and west respectively into ZZZ via LOA (Letter of Authorization) routing. Aircraft Y was issued a descent to 13000 ft. and was routed ZZZ1-ZZZ. Approach had accepted the handoff. Aircraft X was issued a descent to 14000 ft. on the east side of ZZZ1 via ZZZZZ-ZZZ1-ZZZ. I coordinated the ZZZ arrival from the east side of ZZZ1 as directed by Center and Approach LOA to which the Approach Controller acknowledged and approved. Aircraft X was just clear of weather after deviating right of course and proceeded direct ZZZZZ. I issued a frequency change to Aircraft Y to Approach and I received a readback that sounded correct at that moment but wasn't. Approach had not yet accepted the handoff on Aircraft X. Aircraft X was still descending below 14000 ft. into lower terrain of 12300 ft. I then issued a control instruction to Aircraft X to maintain 14000 ft. with no response. I then issued a low altitude alert to Aircraft X with no response. Aircraft Y responded to me on frequency and then I realized that Aircraft X took the frequency from Aircraft Y. I believe that the Approach Controller was mistakenly giving instructions to Aircraft X who kept taking instructions for Aircraft Y. The Approach Controller did not have a hand off on Aircraft X yet. I called the Approach Controller to inform him that there may have been a confusion between the two aircraft.

He told me he was talking to Aircraft Y and I said that Aircraft Y was on my frequency still. I called the Approach Controller and asked him if Aircraft X was climbing up to 14000 ft. and he said that he was climbing him up to 12000 ft. and told me that was his MVA for that area. The controller still did not have radar contact until I called him back and asked him to accept the hand off. The call signs were not that similar but to listen to read backs and similar call signs is very important. In hindsight, I should have called the call signs to each aircraft to have them listen carefully to prevent this error from happening to me and the Approach Controller.

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.

Time / Day

Date : 202309

Local Time Of Day : 1201-1800

Place

Locale Reference.Airport : DRO.Airport

State Reference : CO

Altitude.MSL.Single Value : 8000

Environment

Flight Conditions : VMC

Light : Daylight

Aircraft

Reference : X

ATC / Advisory.Center : ZDV

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 E : ZDV

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 : Instrument

Qualification.Flight Crew : Multiengine

Qualification.Flight Crew : Air Transport Pilot (ATP)

ASRS Report Number.Accession Number : 2032403

Human Factors : Situational Awareness

Events

Anomaly.Deviation - Altitude : Excursion From Assigned Altitude

Anomaly.Deviation / Discrepancy - Procedural : Clearance

Anomaly.Inflight Event / Encounter : CFTT / CFIT

Detector.Person : Flight Crew

When Detected : In-flight

Result.Flight Crew : Returned To Clearance

Assessments

Contributing Factors / Situations : Human Factors

Primary Problem : Human Factors

Narrative: 1

We were cleared for the visual approach into DRO. PF set the aircraft up to enter a left base for Runway 21. We began to configure about 10 NM out. As we got closer and began to descend we determined we were too close to the runway and opted to turn into a brief downwind to provide more room before turning in. During this time the descent continued and we got below 8,000 ft. The FAF on the RNAV is 8,800 ft., so as we neared that point and began to turn in towards the runway we got an EGPWS caution terrain audio message. Just prior to getting the caution message I noticed we were not at the prescribed altitude for the instrument procedure and then the caution message went off, I informed the PF that the nearest prescribed altitude which was 8,800 ft. PF followed procedure and disconnected the autopilot, began to climb back up to 8,800 and continue turn towards the runway. The rest of the approach was uneventful. Cause: Lack of situational awareness in regards to our altitude and terrain, a possible miscommunication on what altitude we should be at when we decided to extend the approach to provide more maneuvering room. Suggestions: Next time I would opt to do the straight in RNAV approach allowing time to not only slow and configure and have positive course guidance and altitudes to follow. Another suggestion is for both of us to be more aware of preassigned altitudes such as an FAF or step down fix even if we are on a visual approach. This can be mitigated through briefings and continued CRM by both pilots.

Synopsis

Air carrier First Officer reported an altitude deviation during a visual approach to DRO airport resulting in a CFTT event. The crew disconnected the autopilot, initiated a climb and continued with the approach and landing.

Time / Day

Date : 202309

Local Time Of Day : 1801-2400

Place

Locale Reference.ATC Facility : ZZZ.ARTCC

State Reference : US

Altitude.MSL.Single Value : 33000

Environment

Flight Conditions : Marginal

Weather Elements / Visibility.Other

Aircraft

Reference : X

ATC / Advisory.Center : ZZZ

Aircraft Operator : Air Carrier

Make Model Name : A300

Crew Size.Number Of Crew : 2

Operating Under FAR Part : Part 121

Flight Phase : Cruise

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 : Pilot Not 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 : 2031640

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 : 2031641
Human Factors : Distraction

Events

Anomaly.Aircraft Equipment Problem : Critical
Anomaly.Deviation - Altitude : Excursion From Assigned Altitude
Anomaly.Deviation - Speed : All Types
Anomaly.Deviation / Discrepancy - Procedural : Clearance
Anomaly.Inflight Event / Encounter : Loss Of Aircraft Control
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.Flight Crew : Overcame Equipment Problem
Result.Flight Crew : Returned To Clearance

Assessments

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

Narrative: 1

Captain was Pilot Flying with autopilot on at cruising altitude of FL330. The aircraft suddenly went into a dive and heard loud overspeed warning indicator aural. Captain said his airspeed decreased and was indicating around 70 kts. My airspeed was about 10 kts into the zipper, an overspeed. Captain said he had a bad ADC and transferred me the controls, he then selected ADC 2 on switching panel to agree with my speed. At this point, the aircraft lost 400 ft. When I took control of the aircraft, it was in an overspeed state and nose down pitch. I asked the Captain to tell ATC that we need lower and a block altitude. He notified ATC and also let them know of our malfunction. ATC gave us a block altitude between FL300 & FL280. As I continued to descend, the speed wasn't bleeding off as quickly as I liked and I slowed the descent rate down to reduce the airspeed. At this point, I realized our auto throttles were also INOP. So I reduced the power and called for the unreliable airspeed checklist. The Captain read me the proper pitch and power setting for the descent configuration. I flew those pitch and power settings. I arrested the descent at FL290, then turned the auto pilot back on and the airplane held altitude, and I adjusted thrust to maintain proper airspeed. Captain then ran ECAMS and QRH and we concluded that ADC 1 had failed and with it the auto throttle system, the FADEC system, fuel CG transfer system, and yaw damper had also failed with it. We then requested a climb up to FL330 and completed the flight with out further incidents. The cause of this event was due to an aircraft malfunction. This aircraft was written up for the exact same malfunction on the prior flight. If Maintenance may have been able to diagnose and fix the malfunction correctly then it may not have happened. We knew about the write up and even had one of the previous pilots jumpseat on our flight and he explained it to us. The only I think we as pilots could have done differently is that we should have had the number 2 autopilot engaged instead of the number 1 autopilot; that way, when the ADC 1 failed it, wouldn't have affected the aircraft state.

Narrative: 2

Flying at FL330 Captain PF (Pilot Flying) on autopilot 1. ADC 1 computer failed. Yaw damper 1 and auto throttles disconnected and Captain's airspeed indicator was at about

70 kts indicated. Autopilot started to nose over to stay on speed. I handed jet to FO (First Officer) as his air data seemed accurate. Through the noise of all the warnings going off, we noticed airplane descending and speeding up into the overspeed zipper. FO adjusted power and I told Center we are descending and need a lower altitude. He cleared us immediately and was kind enough to give us a block altitude of FL280 to FL300, we chose FL290. FO did an outstanding job getting everything under control on speed, on altitude, and on his autopilot. Used unreliable airspeed checklist. Next, we went through QRH. Yaw damp 1 was off, N1 faulted and had to set to alternate per ECAM, Captain ADC to number 2, and auto throttles off. Yaw damp and auto throttles wouldn't reengage. Writing this due to descent prior to clearance, but they gave quickly plus ATC gave us priority handling for a few minutes. No emergency declaration and back to normal altitude once all under control. ATC was very helpful and accommodating. Thank you. Nice team work.

Synopsis

Air carrier flight crew reported ADC failure inflight causing temporary aircraft loss of control.

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 : 1

Location Of Person.Aircraft : X

Location In Aircraft : Flight Deck

Reporter Organization : Air Carrier

Function.Flight Crew : First Officer

Function.Flight Crew : Pilot Flying

Qualification.Flight Crew : Multiengine

Qualification.Flight Crew : Instrument

Qualification.Flight Crew : Air Transport Pilot (ATP)

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

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 : Instrument

Qualification.Flight Crew : Multiengine

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 : 3

Location Of Person.Aircraft : X
Reporter Organization : Air Carrier
Function.Flight Crew : Pilot Not Flying
Function.Flight Crew : Relief Pilot
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 : 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.

Narrative: 2

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

Narrative: 3

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

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

Time / Day

Date : 202309

Local Time Of Day : 1201-1800

Place

Locale Reference.ATC Facility : ZZZ.Tower

State Reference : US

Altitude.MSL.Single Value : 600

Environment

Flight Conditions : Marginal

Aircraft

Reference : X

ATC / Advisory.Tower : ZZZ

Aircraft Operator : Air Taxi

Make Model Name : Helicopter

Crew Size.Number Of Crew : 3

Operating Under FAR Part : Part 135

Flight Plan : IFR

Mission : Ambulance

Flight Phase : Final Approach

Airspace.Class D : ZZZ

Airspace.Class E : ZZZ

Person

Location Of Person.Facility : ZZZ.TWR

Reporter Organization : Government

Function.Air Traffic Control : Local

Qualification.Air Traffic Control : Fully Certified

Experience.Air Traffic Control.Time Certified In Pos 1 (yrs) : 6

ASRS Report Number.Accession Number : 2031394

Human Factors : Time Pressure

Human Factors : Workload

Human Factors : Confusion

Events

Anomaly.ATC Issue : All Types

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 : CFTT / CFIT

Detector.Automation : Air Traffic Control

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
Result.Air Traffic Control : Issued Advisory / Alert
Result.Air Traffic Control : Provided Assistance

Assessments

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

Aircraft X was inbound to ZZZ on the approach due to bad weather. They never checked on and when they were around 4 miles, I attempted to reach out to the helicopter because they had a low altitude alert. 600 ft. at 4 miles from the airport. Without knowing if they were on my frequency, I issued the altimeter and attempted to reach them again. No response from the helicopter so I reached out the East sector at ZZZ and they replied that they were going to switch him. The pilot was visibly disoriented and never was even close to being on the approach or at a safe altitude. When the pilot finally arrived to my frequency, they were about 2.5 miles from the field, still very disoriented, had them climb, and issued additional altimeter settings. ZZZ needs to pay attention. Very unsafe and nonchalant attitude when advised about an aircraft that was low and not even on the approach.

Synopsis

A Tower Controller reported a helicopter on an approach in marginal weather was disoriented and deviated from the approach course and below the published altitudes, causing the Tower to receive a low altitude alert.

Time / Day

Date : 202308

Local Time Of Day : 1801-2400

Place

Locale Reference.Airport : ZZZ.Airport

State Reference : US

Altitude.MSL.Single Value : 2600

Aircraft

Reference : X

ATC / Advisory.TRACON : ZZZ

Aircraft Operator : Fractional

Make Model Name : Challenger 350

Crew Size.Number Of Crew : 2

Flight Plan : IFR

Mission : Passenger

Flight Phase : Cruise

Route In Use : Vectors

Airspace.Class B : ZZZ

Person

Location Of Person.Facility : ZZZ.TRACON

Reporter Organization : Government

Function.Air Traffic Control : Approach

Qualification.Air Traffic Control : Fully Certified

Experience.Air Traffic Control.Time Certified In Pos 1 (yrs) : 12

ASRS Report Number.Accession Number : 2030883

Human Factors : Communication Breakdown

Human Factors : Confusion

Human Factors : Time Pressure

Human Factors : Workload

Human Factors : Distraction

Communication Breakdown.Party1 : ATC

Communication Breakdown.Party2 : Flight Crew

Events

Anomaly.ATC Issue : All Types

Anomaly.Deviation - Altitude : Overshoot

Anomaly.Deviation / Discrepancy - Procedural : Clearance

Anomaly.Inflight Event / Encounter : CFTT / CFIT

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

Narrative: 1

Aircraft X was assigned altitude 3,000 feet, and pilot read back 3,000 feet. Pilot was instructed to proceed to [a fix] and intercept the localizer for Runway X. I observed the pilot at 2,600 feet over the city's antennas which the MVA is 3,000 feet. I asked the pilot to say altitude and informed him of the MVA altitude restrictions, with the current altimeter setting. He informed me he was climbing back to 3,000 feet. At this point he was past the obstruction, and I informed him it was not necessary to climb and asked him if he had the airport in sight. The pilot reported the airport in sight. I issued the visual approach clearance along with a Brasher Warning. Because of the complexity of traffic, similar sounding call signs and no audio or visual alarms of the Low Altitude event I did not issue the Safety Alert, "Low Altitude". When busy and you observe an aircraft below the MVA regardless of an alarm, issue "Low Altitude Alert" to said aircraft.

Synopsis

A TRACON Controller reported an aircraft descended below their assigned altitude and flew below the minimum vectoring altitude.

Time / Day

Date : 202308

Local Time Of Day : 1201-1800

Place

Locale Reference.ATC Facility : ZZZ.TRACON

State Reference : US

Altitude.MSL.Single Value : 14000

Environment

Flight Conditions : VMC

Weather Elements / Visibility.Visibility : 10

Light : Daylight

Aircraft

Reference : X

ATC / Advisory.TRACON : ZZZ

Aircraft Operator : Corporate

Make Model Name : Gulfstream IV / G350 / G450

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 : 1

Location Of Person.Aircraft : X

Location In Aircraft : Flight Deck

Reporter Organization : Corporate

Function.Flight Crew : First Officer

Function.Flight Crew : Pilot Not Flying

Qualification.Flight Crew : Multiengine

Qualification.Flight Crew : Instrument

Qualification.Flight Crew : Air Transport Pilot (ATP)

Experience.Flight Crew.Total : 7257

Experience.Flight Crew.Last 90 Days : 44

Experience.Flight Crew.Type : 1400

ASRS Report Number.Accession Number : 2030843

Human Factors : Distraction

Human Factors : Human-Machine Interface

Human Factors : Situational Awareness

Human Factors : Workload

Human Factors : Confusion

Person : 2

Location Of Person.Aircraft : X

Location In Aircraft : Flight Deck

Reporter Organization : Corporate
Function.Flight Crew : Captain
Function.Flight Crew : Pilot Flying
Qualification.Flight Crew : Multiengine
Qualification.Flight Crew : Flight Instructor
Qualification.Flight Crew : Air Transport Pilot (ATP)
Qualification.Flight Crew : Instrument
Experience.Flight Crew.Total : 10500
Experience.Flight Crew.Last 90 Days : 60
Experience.Flight Crew.Type : 1700
ASRS Report Number.Accession Number : 2030859
Human Factors : Workload
Human Factors : Situational Awareness
Human Factors : Human-Machine Interface
Human Factors : Distraction
Human Factors : Confusion
Human Factors : Time Pressure

Events

Anomaly.Deviation - Altitude : Crossing Restriction Not Met
Anomaly.Deviation - Altitude : Overshoot
Anomaly.Deviation - Track / Heading : All Types
Anomaly.Deviation / Discrepancy - Procedural : Clearance
Anomaly.Inflight Event / Encounter : CFTT / CFIT
Detector.Person : Air Traffic Control
When Detected : In-flight
Result.Flight Crew : FLC complied w / Automation / Advisory
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 : Chart Or Publication
Contributing Factors / Situations : Human Factors
Contributing Factors / Situations : Procedure
Contributing Factors / Situations : Software and Automation
Primary Problem : Software and Automation

Narrative: 1

Enroute to ZZZ from ZZZ1, we requested LOC XX approach with Approach Control and were given approach clearance from ZZZ2 to ZZZZ. As we passed ZZZ2 in a descent approaching ZZZZ at 14,000 ft., our NAV system took a hard right turn to the east as if it was not going to capture the 4 DME arc at ZZZZ. Lateral and vertical modes were: LNAV/VNAV with Autopilot engaged at the time. As we passed ZZZZ, I intervened by selecting heading mode as the active lateral guidance. As such, the aircraft's descent mode defaulted to VFLCH and the aircraft kept descending through 14,000 ft. at ZZZZ (MDA of 8,760 ft.) We were anticipating LNAV/VNAV guidance to a visual approach for Runway XX. By the time we started a turn back to the north towards ZZZZ1, and arresting the descent, we had descended to an altitude of about 13,600 ft. ATC noticed our turn to the east and altitude, giving a turn to an XXX degree heading and climb instructions back to 14,000 ft. On assigned heading and altitude, ATC informed us about

the minimum altitude in that area and subsequently cleared us direct to ZZZZZ2 to intercept the approach. From ZZZZZ2 the approach and landing were uneventful.

Narrative: 2

Enroute to ZZZ from ZZZ1, we requested LOC XX approach with Approach Control and were given approach clearance from ZZZ2 to ZZZZZ. As we passed ZZZ2 in a descent approaching ZZZZZ at 14,000 ft. our NAV system took a hard right turn to the east as if it was not going to capture the 4 DME arc at ZZZZZZ. Lateral and vertical modes were: LNAV/VNAV with Autopilot engaged at the time. As we passed ZZZZZ, I intervened by selecting Heading Mode as the active lateral guidance. As such, the aircraft's descent mode defaulted to VFLCH and the aircraft kept descending through 14,000 ft. at ZZZZZ (MDA of 8,760 ft.) We were anticipating LNAV/VNAV guidance to a visual approach for Runway XX. By the time we started a turn back to the north towards ZZZZZ1, and arresting the descent, we had descended to an altitude of about 13,600 ft. ATC noticed our turn to the east and altitude, giving a turn to a XXX degree heading and climb instructions back to 14,000 ft. After established on assigned heading and altitude, ATC informed us about the MVA in that area and subsequently cleared us direct to ZZZZZ2 to intercept the approach. From ZZZZZ2 the approach and landing were uneventful.

Synopsis

Gulfstream IV flight crew reported while on autopilot the aircraft turned the wrong direction during an approach. While attempting to recover, the aircraft descended below the assigned altitude and flew below the Minimum Vectoring Altitude.

Time / Day

Date : 202308

Local Time Of Day : 1201-1800

Place

Locale Reference.Airport : ZZZ.Airport

State Reference : US

Altitude.MSL.Single Value : 7500

Environment

Flight Conditions : VMC

Light : Daylight

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 : Descent

Route In Use.STAR : 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 : Captain

Qualification.Flight Crew : Multiengine

Qualification.Flight Crew : Air Transport Pilot (ATP)

Qualification.Flight Crew : Instrument

ASRS Report Number.Accession Number : 2030717

Human Factors : Workload

Human Factors : Situational Awareness

Human Factors : Human-Machine Interface

Human Factors : Time Pressure

Human Factors : Confusion

Human Factors : Distraction

Person : 2

Location Of Person.Aircraft : X

Location In Aircraft : Flight Deck

Reporter Organization : Air Carrier

Function.Flight Crew : First Officer

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 : 2030714
Human Factors : Workload
Human Factors : Human-Machine Interface
Human Factors : Distraction
Human Factors : Confusion
Human Factors : Situational Awareness

Events

Anomaly.Deviation - Altitude : Crossing Restriction Not Met
Anomaly.Deviation - Altitude : Overshoot
Anomaly.Deviation / Discrepancy - Procedural : Published Material / Policy
Anomaly.Deviation / Discrepancy - Procedural : Clearance
Anomaly.Inflight Event / Encounter : CFTT / CFIT
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
Result.Air Traffic Control : Provided Assistance

Assessments

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

Narrative: 1

While coming into ZZZ, we received the ATIS and they were using Runway XXL/R. We had briefed the fixes and altitudes throughout and also had our performance numbers. We were about less than 30 minutes out when we were given our clearance to descent via the ZZZZ Runway XX configuration. We noted the final altitude set, which was 6,000 ft. and proceeded to descend. A few minutes later while descending, ATC informed us that they had just switched runway configurations and were now landing on Runways XYR/L. So, it caught us by surprise and so I was going into the FMS to get the new landing data numbers as well as putting the new runway with the corresponding arrival. We verified the fixes and read out the altitudes while descending. So, the final altitude on the ZZZZ arrival with the Runway XY configuration is now 8,000 ft. However, we failed to remember that we had the altitude set for 6,000 ft. As we got to the last fix, ZZZZ1, we were told to expect Runway XYR. I also heard a company aircraft was coming in on approach as well, coming from the southeast, so I was anticipating that traffic. The aircraft continued its descent past 8,000 ft. since it was set for 6,000 ft. in the altitude alerter. ATC queried us and told us to climb back up to 8,000 ft. for terrain separation. They also gave us a vector. We stopped our descent around 7,400 ft. and continued to climb to 8,000 ft. We got back to 8,000 ft. and proceeded with vectors to the airport and landed safely. The biggest factor was the sudden change in runway configuration while descending. We didn't plan for that and when it occurred, it became rushed trying to configure the FMS to the new runway and to get all the performance data, as well as doing the checklists. If given a new runway, perhaps check the altitude alerter to make sure that the altitude were

descending for matches the new arrival procedure. Maybe incorporate the read back of our fixes and check the last point and the altitude and then give a look at the altitude alerter.

Narrative: 2

Received runway change at lower altitude. Prior ATIS lacked wind reports causing confusion and distraction. Clearance granted to prior assigned runway for STAR bottom Altitude was 6,000 ft. After runway change, crew failed to correlate change in published bottom altitude during brief with the altitude previously set for XXL. Diligence when confirming fixes below 18,000 ft. during runway change. Request for delay vector during time of confusion and heavy workload. Make time when needed.

Synopsis

EMB-175 flight crew reported ATC climbed them for terrain avoidance after they descended below a crossing restriction on a STAR.

Time / Day

Date : 202308

Local Time Of Day : 1201-1800

Place

Locale Reference.Navaid : BXK.VORTAC

State Reference : AZ

Altitude.MSL.Single Value : 5600

Environment

Flight Conditions : VMC

Weather Elements / Visibility : Turbulence

Aircraft

Reference : X

ATC / Advisory.TRACON : P50

Aircraft Operator : Personal

Make Model Name : Small Aircraft

Crew Size.Number Of Crew : 1

Operating Under FAR Part : Part 91

Flight Plan : IFR

Mission : Personal

Flight Phase : Descent

Airspace.Class E : P50

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 : Flight Instructor

Qualification.Flight Crew : Commercial

Qualification.Flight Crew : Instrument

Experience.Flight Crew.Total : 387

Experience.Flight Crew.Last 90 Days : 104.2

Experience.Flight Crew.Type : 283

ASRS Report Number.Accession Number : 2030550

Human Factors : Distraction

Human Factors : Situational Awareness

Human Factors : Time Pressure

Human Factors : Workload

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 : CFTT / CFIT

Detector.Person : Flight Crew
Detector.Person : Air Traffic Control
When Detected : In-flight
Result.Flight Crew : FLC complied w / Automation / Advisory
Result.Flight Crew : Returned To Clearance
Result.Flight Crew : Became Reoriented
Result.Air Traffic Control : Issued Advisory / Alert

Assessments

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

Narrative: 1

While correcting for heavier crosswind than expected to stay on assigned VOR Radial, plane experienced mountain wave downdraft and descended. I noticed the descent after approximately 350 feet and initiated a climb which brought me back up to 6000 ft. Approach issued an altitude warning during my corrective climb. After initiating the full power climb I was able to regain altitude and upon crossing the mountain ridge experienced a heavy updraft confirming my suspicion of mountain wave air currents. In the future I will be to be more diligent with my scan of instruments in order to not become fixated on course guidance. Also to note that downdrafts aren't always noticeable without instrument aid.

Synopsis

GA pilot reported they received a low altitude alert from P50 TRACON after they encountered a downdraft and descended from their assigned altitude near BXK VOR.

Time / Day

Date : 202308
Local Time Of Day : 1801-2400

Place

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

Environment

Flight Conditions : VMC
Weather Elements / Visibility.Visibility : 10
Light : Daylight
Ceiling.Single Value : 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 : Takeoff / Launch
Route In Use : Direct

Component

Aircraft Component : Aileron Control Column
Aircraft Reference : X
Problem : Improperly Operated

Person

Location Of Person.Aircraft : X
Location In Aircraft : Flight Deck
Reporter Organization : Personal
Function.Flight Crew : Captain
Function.Flight Crew : Single Pilot
Qualification.Flight Crew : Air Transport Pilot (ATP)
Qualification.Flight Crew : Instrument
Qualification.Flight Crew : Multiengine
Qualification.Flight Crew : Flight Instructor
Experience.Flight Crew.Total : 4017
Experience.Flight Crew.Last 90 Days : 150.6
Experience.Flight Crew.Type : 166
ASRS Report Number.Accession Number : 2030512
Human Factors : Time Pressure
Human Factors : Distraction
Human Factors : Fatigue

Events

Anomaly.Aircraft Equipment Problem : Critical
Anomaly.Deviation - Altitude : Excursion From Assigned Altitude
Anomaly.Deviation - Track / Heading : All Types
Anomaly.Deviation / Discrepancy - Procedural : Published Material / Policy
Anomaly.Deviation / Discrepancy - Procedural : FAR
Anomaly.Inflight Event / Encounter : Loss Of Aircraft Control
Detector.Person : Flight Crew
When Detected : In-flight
Result.Flight Crew : Overcame Equipment Problem

Assessments

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

Narrative: 1

This occurred during a repositioning flight from ZZZ to ZZZ1. I had attended the ZZZ2 airshow with my aircraft as a static display and my friend flew my aircraft from ZZZ2 to ZZZ. I met him there in another aircraft that I had repositioned from the ZZZ2 to ZZZ. AT ZZZ2 I had placed my small overnight bag and backpack on the rear seat in my aircraft and secured it with the seat belt. At ZZZ I placed my helmet bag (with my flight helmet in it) on my backpack with the intention of securing it with the seat belt as well. I must have gotten distracted and I forgot to secure the helmet bag prior to departing. I taxied to and departed Runway XX at ZZZ. During my takeoff roll, about the time the tail came up, I felt or heard something and as soon as I broke ground I could feel a resistance when I tried to move the stick to the right. I realized that my helmet bag had fallen to the floor in the rear cockpit and was either blocking the controls or binding in the exposed aileron cable/pulley. After a couple tries I was able to free the bag and then held it on my lap for the remainder of the flight. During my attempts to free the bag I had drifted left of the runway by several hundred feet and was over the hangars at approximately 100 feet AGL when I corrected back to the right. Due to the other traffic in the left pattern for Runway XX I opted to just continue to depart to the West and then Northwest in the direction of my destination of ZZZ1. The rest of the flight went smoothly. After some reflection I realize that there were probably some contributing factors to my failure to secure the bag. I had not slept well the two previous nights (some noise at the hotel kept waking me up at XA:00, had spent two days in the sun at the airshow and had not eaten much the day this happened. I was also in a hurry to get back to ZZZ1 in the daylight as I prefer not to fly my Aircraft X at night.

Synopsis

Single Pilot reported a temporary flight control cable jam during initial climb which resulted in a course deviation and low altitude flight over hangars. Pilot reported fatigue as the primary cause of the errors.

Time / Day

Date : 202308
Local Time Of Day : 0601-1200

Place

Locale Reference.ATC Facility : ZZZ.TRACON
State Reference : US
Relative Position.Distance.Nautical Miles : 1
Altitude.MSL.Single Value : 1900

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 : Initial Approach
Airspace.Class C : ZZZ

Component

Aircraft Component : Navigational Equipment and Processing
Aircraft Reference : X
Problem : Improperly Operated

Person

Location Of Person.Aircraft : X
Location In Aircraft : Flight Deck
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
Experience.Flight Crew.Last 90 Days : 169
Experience.Flight Crew.Type : 663
ASRS Report Number.Accession Number : 2029586
Human Factors : Situational Awareness

Events

Anomaly.Aircraft Equipment Problem : Less Severe
Anomaly.Deviation - Altitude : Overshoot
Anomaly.Deviation / Discrepancy - Procedural : Published Material / Policy
Anomaly.Deviation / Discrepancy - Procedural : Clearance
Anomaly.Inflight Event / Encounter : CFTT / CFIT
Detector.Person : Flight Crew
When Detected : In-flight

Result.Flight Crew : Overcame Equipment Problem
Result.Flight Crew : Returned To Clearance

Assessments

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

Narrative: 1

We were setup and planned for the visual backed up by the ILS XR approach into ZZZ and were descending via level change when ATC gave us a last minute change and switched us to the RNAV Y XR. We programmed the RNAV Y XR, and I engaged VNAV but didn't verify the path. We were approximately 1-3 miles SE of the ZZZZZ WP when we called the field with clear VFR visibility and were cleared for the visual approach to XR. As we descended thinking we were coupled to the VNAV PATH, we noticed we were pretty low visually to the airfield. I disengaged autopilot and auto throttle to stop the decent and the Captain told me to climb from 1900 ft MSL to 2700 ft MSL, the crossing alt at ZZZZZ1. We climbed to 2700 ft MSL, reconnected VNAV PATH, and continued the decent path to land visually with no further issues. Suggest: When using an approach to assist in a visual approach, ensure the approach is engaged and properly indicating the selected vertical and horizontal path, i.e. verify. Also, if ATC gives an approach change that feels too late to program, tell them which approach you're setup for and that you'd like to continue or get vectors to reset.

Synopsis

First Officer reported late runway change and mismanagement of RNAV resulted in descending too low and a CFTT event.

Time / Day

Date : 202308
Local Time Of Day : 0601-1200

Place

Locale Reference.ATC Facility : BOI.TRACON
State Reference : ID
Altitude.MSL.Single Value : 5000

Aircraft

Reference : X
ATC / Advisory.TRACON : BOI
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
Nav In Use : FMS Or FMC
Nav In Use : GPS
Nav In Use.Localizer/Glideslope/ILS : ILS 10R
Flight Phase : Initial Approach
Route In Use : Direct
Airspace.Class C : BOI

Component : 1

Aircraft Component : GPS & Other Satellite Navigation
Aircraft Reference : X
Problem : Malfunctioning

Component : 2

Aircraft Component : Navigation Database
Aircraft Reference : X
Problem : Malfunctioning

Person

Location Of Person.Aircraft : X
Location In Aircraft : Flight Deck
Reporter Organization : Air Carrier
Function.Flight Crew : Pilot Flying
Qualification.Flight Crew : Instrument
Qualification.Flight Crew : Multiengine
Qualification.Flight Crew : Air Transport Pilot (ATP)
ASRS Report Number.Accession Number : 2029379
Human Factors : Human-Machine Interface
Human Factors : Situational Awareness
Human Factors : Time Pressure
Human Factors : Workload

Events

Anomaly.Aircraft Equipment Problem : Less Severe
Anomaly.Flight Deck / Cabin / Aircraft Event : Other / Unknown
Anomaly.Deviation - Altitude : Crossing Restriction Not Met
Anomaly.Deviation - Altitude : Overshoot
Anomaly.Deviation / Discrepancy - Procedural : Published Material / Policy
Anomaly.Deviation / Discrepancy - Procedural : Clearance
Anomaly.Inflight Event / Encounter : CFTT / CFIT
Detector.Automation : Air Traffic Control
Detector.Automation : Aircraft Other Automation
Detector.Person : Air Traffic Control
Detector.Person : Flight Crew
Were Passengers Involved In Event : N
When Detected : In-flight
Result.Flight Crew : FLC complied w / Automation / Advisory
Result.Flight Crew : Returned To Clearance
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

Prior to arriving BOI on SPUUD 4 Arrival, PF (Pilot Flying) briefed and set up for visual backed up with GPS 10R based on ATIS. Approximately 120 NM away, multiple aircraft reported GPS jamming issues to Salt Lake Center. As we approached BOI, our aircraft also experienced GPS problems, with ECAM "FM/GPS Position Disagree." After reviewing FMS and GPS position data in FMGC and finding no errors, PF decided to set up for ILS10R as the backup instrument approach. Normal descent via SPUUD4 to EKEME. Then assigned descent to 5,000 ft. Identified airport off right wing visually. Aircraft was on a tight downwind, so PF slowed and started configuration process in attempt to reduce workload (Threat and Error Management process). ATC assigned heading 010 which put aircraft pointing almost directly at ELUBE for base leg. When cleared for visual approach, PF asked for ELUBE direct, verified FMA "NAV," then started descent in attempt to ensure aircraft was not above the GS. During this maneuver, PF mistakenly set 2000 ft. and OPEN descent, while intent was 4400 ft. Open Descent. Aircraft then joined final course, PF selected APPCH button, but Autopilot did not couple to ILS (GS did not show in capture range). At this point, aircraft had gotten below GS, and gave "GLIDESLOPE" call audio. At nearly same time, Tower called to say they tracked us LOW and to verify runway in sight. PF disengaged Autopilot, reset higher altitude, and leveled aircraft. Before Landing Checklist completed and aircraft stable by 1000 AGL, continued on VASI to landing BOI 10R. Cause: ATC vector to final at 5000 ft, while crossing for ELUBE is 4400 ft. ATC vector to final directly toward ELUBE rather than intercepting LOC well prior to ELUBE, not allowing sufficient room for descent, LOC capture, and normal Glideslope intercept in normal order and timing. Pilot error in setting 2000 ft. rather than 4400 ft. and then setting OPEN descent rather than a nominal 500 to 1000 fpm down. Suggestion: Ensure ATC vectors to final course include descent to proper fix crossing altitude. Ensure ATC

vectors to final course intercept at least 3 NM outside of a given fix. Ensure ATC does not rush to cut airline crews into a short final at a higher altitude. Emphasize the recommendation to NOT use open descent when close to the FAF.

Synopsis

Air carrier pilot flying reported GPS jamming in the area around BOI. The pilot crew eventually performed an ILS and visual approach to the runway because of the unreliable GPS signal.

Time / Day

Date : 202308
Local Time Of Day : 0601-1200

Place

Locale Reference.ATC Facility : ZLA.ARTCC
State Reference : CA
Altitude.MSL.Single Value : 31270

Aircraft

Reference : X
ATC / Advisory.Center : ZLA
Aircraft Operator : Fractional
Make Model Name : Light Transport, Low Wing, 2 Turbojet Eng
Crew Size.Number Of Crew : 2
Operating Under FAR Part : Part 135
Flight Plan : IFR
Mission : Passenger
Nav In Use : FMS Or FMC
Nav In Use : GPS
Flight Phase : Cruise
Route In Use : Direct
Airspace.Class A : ZZZ

Component : 1

Aircraft Component : GPS & Other Satellite Navigation
Aircraft Reference : X
Problem : Malfunctioning

Component : 2

Aircraft Component : Navigation Database
Aircraft Reference : X
Problem : Malfunctioning

Person : 1

Location Of Person.Aircraft : X
Location In Aircraft : Flight Deck
Reporter Organization : Fractional
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 : 2029348
Human Factors : Workload
Human Factors : Troubleshooting
Human Factors : Situational Awareness

Person : 2

Location Of Person.Aircraft : X
Location In Aircraft : Flight Deck
Reporter Organization : Fractional
Function.Flight Crew : Captain
Function.Flight Crew : Pilot Not Flying
Qualification.Flight Crew : Multiengine
Qualification.Flight Crew : Instrument
Qualification.Flight Crew : Air Transport Pilot (ATP)
ASRS Report Number.Accession Number : 2029646
Human Factors : Workload
Human Factors : Human-Machine Interface
Human Factors : Confusion
Human Factors : Troubleshooting
Human Factors : Time Pressure
Human Factors : Situational Awareness

Events

Anomaly.Aircraft Equipment Problem : Less Severe
Anomaly.Deviation - Altitude : Excursion From Assigned Altitude
Anomaly.Deviation - Track / Heading : All Types
Anomaly.Deviation / Discrepancy - Procedural : Clearance
Detector.Automation : Aircraft Other Automation
Detector.Person : Flight Crew
Were Passengers Involved In Event : N
When Detected : In-flight
Result.Flight Crew : Overcame Equipment Problem
Result.Flight Crew : Became Reoriented
Result.Air Traffic Control : Issued Advisory / Alert

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

While at FL310 and just given direct to DRK (from a heading of 040), our plane went direct to DRK, but then started turning to the right to compensate for winds. The winds started fluctuating between 35 and 200 plus kts (for about 5 minutes) direct crosswind out of the south. I pushed the TCS (Touch Controlled Steering) button to stop the continued right turn while watching the winds fluctuate. In all the confusion and distraction, we climbed 270 ft. high with traffic out ahead of us and coming toward us showing plus 800 [ft.] higher than us. I pushed the nose back over and descended to FL310. LA Center asked if we were given a climb. At the time, we were in a possible GPS testing area from the BVL VOR from XA09 till XB29 (but it seems it was probably a little to far to the north to affect us). We're not sure if that contributed to the plane turning to the right. We received no indications of a fault of any sort. I should have left the autopilot on and gone into heading mode until the winds were figured out.

Narrative: 2

We were operating a flight on Aircraft X from ZZZ to ZZZ1. We were between the LANCY fix and DRK on J134 at 31,000 ft. waiting for a climb to our filed altitude of 41000 ft. We were flying an assigned heading of 040 for traffic. We then were given direct to DRK. I entered the direct and as I was monitoring, I noticed the winds in the FMS were wildly fluctuating anywhere between 27 kts to 200 plus kts from the south. The winds that day were really around 27 kts. The FMS was thinking we had a 200 plus kts crosswind and turned 45 plus degrees from our true course to ZZZ into the wind. I brought all of this to the attention to the PF (Pilot Flying) as I was noticing it. He agreed that something was wrong and as I was trying to figure out what was going, on the PF TCS'd (Touch Control System) the controls to stop the turn. At that time, I noticed the aircraft began a slight climb and I brought that to the attention of the PF. At one point, I mentioned we have to stop climbing and get back down to 31000 ft. I believe we ended up anywhere from 250 to 270 ft. high. LAX Center said he saw us turning way off course and then queried us, "Have you been issued a climb clearance?" At that point, I notified ATC we did not receive a climb clearance and he asked what our altitude was. At that point, we were heading back down through 31,100 ft. and I advised him of that. We also informed him our FMS winds were acting strange causing the extra turn. There was traffic off of our left and I noticed the TCAS said they were above 800 ft. during the TCS maneuver. This whole event lasted about 4 minutes in total. After returning to 31000 ft. and back in the general direction of DRK, the FMS winds settled in to the correct appropriate winds between 25 to 35 kts. There was some GPS testing at the time at BVL that ended at XA29 and our event began around XA25. After that event, no other issues happened with the FMS/GPS for the rest of the flight. Both pilots now believe if something like this happens again, to put the aircraft into HDG (Heading) mode and not TCS mode to prevent any altitude gain or loss.

Synopsis

Fractional aircraft pilots reported a problem holding an assigned heading and altitude. Reporters stated was GPS testing in the area that may have contributed to the deviations.

Time / Day

Date : 202308
Local Time Of Day : 1201-1800

Place

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

Aircraft : 1

Reference : X
ATC / Advisory.TRACON : ZZZ
Aircraft Operator : Fractional
Make Model Name : PC-12
Crew Size.Number Of Crew : 1
Operating Under FAR Part : Part 91
Flight Plan : IFR
Mission : Passenger
Flight Phase : Cruise
Airspace.Class E : ZZZ

Aircraft : 2

Reference : Y
ATC / Advisory.TRACON : ZZZ
Aircraft Operator : Personal
Make Model Name : Any Unknown or Unlisted Aircraft Manufacturer
Crew Size.Number Of Crew : 1
Operating Under FAR Part : Part 91
Flight Plan : None
Mission : Personal
Flight Phase : Cruise
Airspace.Class E : ZZZ

Person

Location Of Person.Aircraft : X
Location In Aircraft : Flight Deck
Reporter Organization : Fractional
Function.Flight Crew : Pilot Flying
Function.Flight Crew : Captain
ASRS Report Number.Accession Number : 2029100
Human Factors : Time Pressure
Human Factors : Workload

Events

Anomaly.Conflict : NMAC
Anomaly.Deviation - Altitude : Excursion From Assigned Altitude
Anomaly.Deviation - Track / Heading : All Types
Anomaly.Deviation / Discrepancy - Procedural : Clearance
Detector.Person : Flight Crew

When Detected : In-flight

Result.Flight Crew : Overcame Equipment Problem

Result.Flight Crew : Took Evasive Action

Assessments

Contributing Factors / Situations : Human Factors

Primary Problem : Human Factors

Narrative: 1

Aircraft X flying from ZZZ to ZZZ1 with passengers onboard on an IFR Flight Plan at 3,000 ft. Yellow high wing aircraft spotted ahead traveling from left to right. No target from TCAS or ADSB. Aircraft made a sudden turn either towards or away from us. I (pilot flying) disengaged the autopilot and initiated a climbing right-hand turn to avoid the aircraft. At the same moment Approach advised us of a primary target & allowed for deviations as required. The yellow aircraft was definitely <500ft from us both laterally and vertically. Although we were on an IFR flight plan, I will definitely think twice about flying VFR (and IFR) at low altitude on clear days in the future. I will make a point to brief that at no point both pilot's eyes are inside in the future. If we had been distracted or failed to see & avoid this aircraft I believe we would have hit it.

Synopsis

PC-12 pilot reported an NMAC event while on an IFR flight plan with an unknown aircraft on a collision course. The pilot executed an evasive maneuver which prevented a collision.

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.

Time / Day

Date : 202308

Local Time Of Day : 1201-1800

Place

Locale Reference.Airport : ZZZ.Airport

State Reference : US

Altitude.MSL.Single Value : 3000

Environment

Flight Conditions : VMC

Weather Elements / Visibility : Haze / Smoke

Aircraft

Reference : X

Aircraft Operator : Air Carrier

Make Model Name : A300

Crew Size.Number Of Crew : 2

Operating Under FAR Part : Part 121

Flight Plan : IFR

Mission : Cargo / Freight / Delivery

Flight Phase : Initial Approach

Airspace.Class C : ZZZ

Component

Aircraft Component : Autoflight System

Aircraft Reference : X

Problem : Malfunctioning

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 : Captain

Qualification.Flight Crew : Air Transport Pilot (ATP)

Qualification.Flight Crew : Instrument

Qualification.Flight Crew : Multiengine

ASRS Report Number.Accession Number : 2028427

Human Factors : Distraction

Human Factors : Human-Machine Interface

Human Factors : Other / Unknown

Human Factors : Situational Awareness

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 : First Officer
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 : 2028429
Human Factors : Situational Awareness
Human Factors : Distraction
Human Factors : Communication Breakdown
Human Factors : Human-Machine Interface
Communication Breakdown.Party1 : Flight Crew
Communication Breakdown.Party2 : Flight Crew

Events

Anomaly.Aircraft Equipment Problem : Less Severe
Anomaly.Deviation - Altitude : Overshoot
Anomaly.Deviation / Discrepancy - Procedural : Published Material / Policy
Anomaly.Inflight Event / Encounter : Unstabilized Approach
Anomaly.Inflight Event / Encounter : CFTT / CFIT
Detector.Automation : Air Traffic Control
Detector.Person : Flight Crew
When Detected : In-flight
Result.Flight Crew : Returned To Clearance
Result.Flight Crew : Became Reoriented
Result.Air Traffic Control : Issued Advisory / Alert

Assessments

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

Narrative: 1

Weather was a broken ceiling with tops at 5500 and bottoms at 4500. We were VFR below 4500 feet. Air quality was condition yellow. On a 3000 feet downwind we were turned to a heading of 050 (80 degree cut), cleared to descend to 2500, and asked if we had the runway in sight. I was PM, repeated the directions, and said we were "looking." PF started his turn, set 2500, and in the turn looked for the field. We were about 9 miles from the field, so wasn't easy to find at that altitude. There was a slight haze from the fires. Visual details were slightly monochromatic. As we rolled out on the 050 heading I felt even lower vertical angle to the field was off when I called "field in sight. " I then realized we were at 2000 feet and descending. We were still a mile from ZZZZZ [fix], which is at 2600 feet. My first thought was, "we are cleared the visual" it's ok then did the math and realized we were uncomfortably low. About that time we received the aircraft "One Thousand" cockpit call, tower said they had a low alert warning and I told the PF to climb back to 2500 feet. We hit ZZZZZ on altitude, fully configured, and returned to our approach. We were a little high and fast for most of the approach wanting to be on the high side after that event.

Landed safely, took a longer than normal debrief and again talked about it over dinner. Lessons Learned: Below Average on PM duties. PF was an excellent stick. On departure, he was on and on, very tight control of all axes. I let my guard down on the arrival, when it should've been higher. With the airport elevation at 950 feet I should have done the math sooner. I also didn't see what mode the PF selected on the descent from 3000 to 2500. I thought it was LVL/CH, but might have captured Vertical Speed and that's why it went below 2500. And in hind-sight he might have put in 2000 feet but even so, it went below 2000 while PF was still in autopilot. Fatigue was not a factor, but complacency was. I did not realize we went right through 2500 ft in the turn. Normally, as PF, I set my wicket at the IAF. As PM I should have been more involved with that target, but I wasn't. Cause: Lack of altitude awareness. It was set, but both sets of eyes were looking for the field and not realizing we descended below our set altitude. Suggestions: Stick to the basics: Altitude, Heading, and Airspeed. I hate forgetting something I've learned, applied and taught for 30 years.

Narrative: 2

PF for a single leg from ZZZ1 to ZZZ. Takeoff, departure and cruise were uneventful. Vectored letdown to a downwind then dogleg/base heading 050 for RWY XX at 3000 feet. On a heading of 050, tower states field at 2 o'clock, call the field in sight. We report field in sight. I hear descend 2000 and cleared visual approach Runway XX. I select 2000 , LVL/CH and arm approach while slowing to configure. The FAF (ZZZZZ [Fix]) is at 2600 ft. which I had briefed however, it did not enter my mind that I had dialed an altitude below the FAF. As we started to approach ZZZZZ the CA states we are low and we're only cleared to 2500 ft. I instinctively dialed 2500 ft. into the FCP (Flight Control Panel) thinking we would level off there. We must have been below as the altitude never captured which allowed the descent to continue. Approaching ZZZZZ, I became somewhat channelized on finding the runway due to haze when the autopilot kicks off while still descending. We near simultaneously receive the 1000 ft. cockpit call and tower reports a low altitude alert. At that time the CA directs a climb back to 2500 ft. which we execute and then request and receive confirmation from the tower that we are on glide path. The approach is eventually stabilized and landing uneventful. Cause: PF error in visual approach procedures. CRM breakdown in communication. Channelized attention and poor cross-check. Suggestions: When proceeding into a visual field, I will foot stomp the FAF altitude as a no lower than altitude. Visualize and brief PF/PM responsibilities for the arrival and approach. Reset my personal procedures to instrument basics regardless of weather conditions. Finally, ensure all aircraft states are fully verbalized and acknowledged with clarity.

Synopsis

A300 flight crew reported a controlled flight toward terrain event while being vectored for a visual approach in smoky/hazy conditions. ATC issued a low altitude alert to crew who climbed back to the cleared altitude and subsequently made an uneventful landing.

Time / Day

Date : 202308

Local Time Of Day : 0601-1200

Place

Locale Reference.ATC Facility : NCT.TRACON

State Reference : CA

Altitude.MSL.Single Value : 1500

Environment

Flight Conditions : VMC

Weather Elements / Visibility.Visibility : 10

Light : Daylight

Ceiling.Single Value : 11000

Aircraft

Reference : X

ATC / Advisory.UNICOM : MCC

Make Model Name : Small Aircraft, Low Wing, 2 Eng, Retractable Gear

Crew Size.Number Of Crew : 1

Operating Under FAR Part : Part 91

Flight Plan : None

Mission : Test Flight / Demonstration

Flight Phase : Cruise

Airspace.Class C : MCC

Person

Location Of Person.Aircraft : X

Location In Aircraft : Flight Deck

Function.Flight Crew : Single Pilot

Function.Flight Crew : Pilot Flying

Qualification.Flight Crew : Private

Qualification.Flight Crew : Multiengine

Qualification.Flight Crew : Instrument

Experience.Flight Crew.Total : 760

Experience.Flight Crew.Last 90 Days : 6

Experience.Flight Crew.Type : 130

ASRS Report Number.Accession Number : 2028189

Human Factors : Situational Awareness

Human Factors : Distraction

Events

Anomaly.Deviation - Altitude : Overshoot

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

Anomaly.Deviation / Discrepancy - Procedural : FAR

Anomaly.Inflight Event / Encounter : CFTT / CFIT

Detector.Person : Flight Crew

When Detected : In-flight

Result.Flight Crew : Took Evasive Action

Assessments

Contributing Factors / Situations : Human Factors

Contributing Factors / Situations : Procedure

Primary Problem : Human Factors

Narrative: 1

During a fuel + proficiency flight I climbed out of MCC and established 1500 ft. in a turn to the East. I have recently replaced a magneto and the plane is running better than ever. I was trying to establish a max econ low + slow cruise. Power / fuel flow is able to be reduced to new lows. Doing this on my flight to the East, I had not noticed the rising terrain and my descending altitude. I definitely descended below an altitude described by 91.119-b. I noticed this deviation, corrected. Have reviewed the relevant FARs and will be more focused on traffic separation on future flights.

Synopsis

General aviation pilot reported performing a maintenance performance test flight, in a multi-engine aircraft and became distracted, and lost situational awareness to rising terrain. The pilot flew below FAR minimum altitude and corrected the altitude deviation.

Time / Day

Date : 202308

Local Time Of Day : 1201-1800

Place

Locale Reference.ATC Facility : TJIG.Tower

State Reference : FO

Relative Position.Angle.Radial : 000

Relative Position.Distance.Nautical Miles : 2

Altitude.MSL.Single Value : 2000

Environment

Light : Daylight

Aircraft : 1

Reference : X

ATC / Advisory.Tower : TJIG

Aircraft Operator : Air Taxi

Make Model Name : Medium Transport, Low Wing, 2 Turbojet Eng

Crew Size.Number Of Crew : 2

Operating Under FAR Part : Part 135

Flight Plan : IFR

Mission : Ferry / Re-Positioning

Flight Phase : Initial Climb

Route In Use : Vectors

Airspace.Class B : TJIG

Aircraft : 2

Reference : Y

ATC / Advisory.Tower : TJIG

Make Model Name : Any Unknown or Unlisted Aircraft Manufacturer

Airspace.Class B : TJIG

Person

Location Of Person.Aircraft : X

Location In Aircraft : Flight Deck

Reporter Organization : Air Taxi

Function.Flight Crew : First Officer

Function.Flight Crew : Pilot Flying

Qualification.Flight Crew : Air Transport Pilot (ATP)

Experience.Flight Crew.Total : 4000

Experience.Flight Crew.Last 90 Days : 100

Experience.Flight Crew.Type : 300

ASRS Report Number.Accession Number : 2028155

Human Factors : Communication Breakdown

Human Factors : Situational Awareness

Communication Breakdown.Party1 : Flight Crew

Communication Breakdown.Party2 : ATC

Events

Anomaly.ATC Issue : All Types
Anomaly.Conflict : NMAC
Anomaly.Deviation - Altitude : Excursion From Assigned Altitude
Anomaly.Deviation / Discrepancy - Procedural : Published Material / Policy
Detector.Automation : Aircraft RA
Detector.Person : Flight Crew
Miss Distance.Horizontal : 0
Miss Distance.Vertical : 400
Result.Flight Crew : FLC complied w / Automation / Advisory
Result.Air Traffic Control : Issued Advisory / Alert

Assessments

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

Narrative: 1

On climb out of TJIG initial ATC instructions where climb 2000 ft left turn 300. On initial climb in the turn ATC advised of proximate traffic, traffic was never seen. Shortly after ATC advisory TCAS RA was issued. I leveled the wings and complied with TCAS RA requiring a descent from approximately 2000 ft to 1800 ft. After clear of conflict ATC was advised and the turn was continued to 300. Rest of flight completed without incident. It's my belief that ATC may have judged our IFR departure safe and that we would see the conflicting traffic and maintain visual separation, however not being able to see the traffic and receiving an RA required me to comply with RA instructions.

Synopsis

Air taxi pilot reported a near miss after takeoff in a climbing turn from a tower controlled airport in VMC conditions. The pilot followed the TCAS guidance, then once clear of the traffic, continued the flight.

Time / Day

Date : 202308
Local Time Of Day : 1201-1800

Place

Locale Reference.ATC Facility : N90.TRACON
State Reference : NY
Relative Position.Angle.Radial : 033
Relative Position.Distance.Nautical Miles : 17.8
Altitude.MSL.Single Value : 3000

Environment

Flight Conditions : IMC
Weather Elements / Visibility : Cloudy
Light : Daylight
Ceiling.Single Value : 1800

Aircraft : 1

Reference : X
ATC / Advisory.TRACON : N90
Aircraft Operator : Corporate
Make Model Name : Light Transport, Low Wing, 2 Turbojet Eng
Crew Size.Number Of Crew : 2
Operating Under FAR Part : Part 91
Flight Plan : IFR
Mission : Ferry / Re-Positioning
Flight Phase : Descent
Route In Use : Vectors
Airspace.Class E : MMU

Aircraft : 2

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

Person

Location Of Person.Aircraft : X
Location In Aircraft : Flight Deck
Reporter Organization : Corporate
Function.Flight Crew : Pilot Not Flying
Function.Flight Crew : First Officer
Qualification.Flight Crew : Instrument
Qualification.Flight Crew : Multiengine
Qualification.Flight Crew : Air Transport Pilot (ATP)
Experience.Flight Crew.Total : 7020
Experience.Flight Crew.Last 90 Days : 50
Experience.Flight Crew.Type : 3090
ASRS Report Number.Accession Number : 2028130

Human Factors : Confusion
Human Factors : Human-Machine Interface
Human Factors : Communication Breakdown
Communication Breakdown.Party1 : Flight Crew
Communication Breakdown.Party2 : ATC

Events

Anomaly.ATC Issue : All Types
Anomaly.Conflict : NMAC
Anomaly.Deviation - Altitude : Excursion From Assigned Altitude
Anomaly.Deviation / Discrepancy - Procedural : Published Material / Policy
Anomaly.Deviation / Discrepancy - Procedural : Clearance
Detector.Automation : Aircraft TA
Detector.Person : Flight Crew
Miss Distance.Horizontal : 50
Miss Distance.Vertical : 50
When Detected : In-flight
Result.Flight Crew : Took Evasive Action
Result.Air Traffic Control : Issued Advisory / Alert

Assessments

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

Narrative: 1

We were on our way to MMU and being vectored by NY approach. We were assigned to descend and maintain 3000 ft. Upon reaching 3000 ft., we were IMC flying in and out of a broken cloud layer. We noticed a target on our TCAS about 500 ft. below us and about 8 miles in front at our 12 o'clock position. We watched as the target started to climb and head for us. Within 2 miles, they leveled off at our altitude. We anticipated a resolution advisory from the TCAS as the target got closer, however, we never received one. As the target was about to merge with us, we decided to take evasive action and climb immediately to 3500 ft. As we merged with the target, ATC issued us a traffic alert saying someone was passing by us at our altitude. We advised him that we were in IMC and taking evasive action. After the target passed us, we returned to 3000 ft. and continued the rest of the flight normally. A few key notes: We verified our transponder was in TA/RA mode. ATC didn't issue a traffic alert until we were merged with the target. We never received an RA, only a TA. We never saw the target aircraft because we were in the clouds. As far as we know, ATC was not in communication with the target aircraft.

Synopsis

Corporate Pilot reported a traffic conflict in IMC conditions under ATC control. The Pilot initiated an immediate climb to provide separation from the traffic, then returned to altitude and continued the flight.

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 ensuing 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.

Time / Day

Date : 202308

Local Time Of Day : 1201-1800

Place

Locale Reference.Airport : ZZZ.Airport

State Reference : US

Aircraft

Reference : X

Aircraft Operator : Air Carrier

Make Model Name : Regional Jet CL65, Undifferentiated or Other Model

Crew Size.Number Of Crew : 2

Operating Under FAR Part : Part 121

Flight Plan : IFR

Mission : Passenger

Flight Phase : Landing

Person

Location Of Person.Aircraft : X

Location In Aircraft : Flight Deck

Reporter Organization : Air Carrier

Function.Flight Crew : First Officer

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 : 2028011

Human Factors : Training / Qualification

Human Factors : Situational Awareness

Events

Anomaly.Deviation - Altitude : Overshoot

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

Anomaly.Deviation / Discrepancy - Procedural : Clearance

Anomaly.Inflight Event / Encounter : CFTT / CFIT

Detector.Person : Flight Crew

When Detected : In-flight

Result.Flight Crew : Became Reoriented

Assessments

Contributing Factors / Situations : Human Factors

Primary Problem : Human Factors

Narrative: 1

Due to being new to the aircraft and the first time flying the visual into ZZZ, was unaware of proper control inputs and Captain decided to take controls. A little low on the approach

with three red, however descent was stable and that's when Captain intervened. Will continue to study and monitor altitude during the approach.

Synopsis

Air carrier First Officer reported a CFIT event during approach. The Captain intervened due to excursion below glide path.

Time / Day

Date : 202308

Place

Altitude.MSL.Single Value : 30000

Aircraft

Reference : X
ATC / Advisory.Center : ZZZZ
Aircraft Operator : Air Carrier
Make Model Name : Commercial Fixed Wing
Crew Size.Number Of Crew : 3
Operating Under FAR Part : Part 121
Flight Plan : IFR
Mission : Passenger
Nav In Use : FMS Or FMC
Nav In Use : GPS
Flight Phase : Cruise
Route In Use : Oceanic
Airspace.Class A : ZZZ

Component : 1

Aircraft Component : GPS & Other Satellite Navigation
Aircraft Reference : X
Problem : Malfunctioning

Component : 2

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

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 : 2027953
Human Factors : Troubleshooting
Human Factors : Situational Awareness
Human Factors : Human-Machine Interface

Events

Anomaly.Aircraft Equipment Problem : Less Severe
Anomaly.Deviation - Altitude : Excursion From Assigned Altitude

Detector.Automation : Aircraft Other Automation
Detector.Person : Flight Crew
Were Passengers Involved In Event : N
When Detected : In-flight
Result.Flight Crew : Became Reoriented
Result.Flight Crew : Overrode Automation
Result.Flight Crew : Took Evasive Action
Result.Flight Crew : Overcame Equipment Problem

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

I was in the bunk on my rest break when the event occurred. We were at cruise altitude of 30,000 ft. When I returned to the cockpit after my break I was told by the Captain that they had experienced an erroneous indication in the GPWS system that caused the pilots flying to depart from our cruise altitude and climb to a higher altitude in response to those indications in the cockpit. After the event they returned to their assigned altitude. There is a bulletin regarding GPWS errors in environments where GPS jamming occurs. Perhaps we should emphasize it more.

Synopsis

Air carrier relief pilot reported GPS jamming which caused an excursion from the assigned altitude.

Time / Day

Date : 202308

Local Time Of Day : 1201-1800

Place

Locale Reference.ATC Facility : PCT.TRACON

State Reference : VA

Environment

Flight Conditions : VMC

Light : Daylight

Aircraft

Reference : X

ATC / Advisory.TRACON : PCT

Aircraft Operator : Air Carrier

Make Model Name : Medium Transport, Low Wing, 2 Turbojet Eng

Crew Size.Number Of Crew : 2

Operating Under FAR Part : Part 121

Flight Plan : IFR

Mission : Passenger

Flight Phase : Final Approach

Route In Use.Other

Person

Location Of Person.Aircraft : X

Location In Aircraft : Flight Deck

Reporter Organization : Air Carrier

Function.Flight Crew : First Officer

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 : 2027871

Human Factors : Training / Qualification

Human Factors : Situational Awareness

Human Factors : Communication Breakdown

Human Factors : Confusion

Communication Breakdown.Party1 : Flight Crew

Communication Breakdown.Party2 : Flight Crew

Events

Anomaly.ATC Issue : All Types

Anomaly.Deviation - Altitude : Crossing Restriction Not Met

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

Anomaly.Deviation / Discrepancy - Procedural : Clearance

Anomaly.Inflight Event / Encounter : CFTT / CFIT

Detector.Automation : Aircraft Terrain Warning

Detector.Person : Flight Crew

When Detected : In-flight
Result.Flight Crew : Returned To Clearance

Assessments

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

Narrative: 1

While flying the River Visual Runway 19 into DCA on Day 0 we received a terrain caution followed by a terrain EGPWS warning indication. Conditions at time of the event were day VMC. The autopilot was off and I was hand flying the visual approach at time of the event. The approach was heavily briefed and we were configured and stable at 1000 AGL, but my initial descent on the approach was too steep resulting in finding ourselves lower than we should have been. After receiving the caution the obstacle was identified as a crane to our East associated with some taller buildings. The altitude and flight path was corrected immediately, but as I stated it was briefly followed by an EGPWS warning. We decided that since it was day VMC, the obstacle was identified, and our location was over the middle of the river with considerable distance from the obstacle we corrected the flight path and continued the approach. The warning immediately went away and thereafter had sight of PAPI's in which we corrected flight path to maintain a stable descent to Runway 19 with no other issue. Both the Captain and I were inexperienced with the River Visual Runway 19. Which we briefed about heavily prior to the flight and then again prior to executing the approach. It was my very first time flying the approach and they said that they had only done the approach a handful of times. This was certainly a threat identified in our brief and in our de-brief at the gate in DCA. In addition, ATC gave us a tight right hand turning vector to intercept the river at 3000 MSL in which we both struggled to initially identify the river based off of our inexperience with the approach. This was the catalyst that put us behind the aircraft while I am trying to fly the approach for the very first time in addition to being configured and stable based off of stable approach criteria. Ultimately, it was inexperience with the approach, task saturation, and poor situational awareness based off the suggested altitudes on the approach chart that led to this event. If crews are inexperienced with an approach as complicated as the River Visual Runway 19 before flying the approach as pilot flying my suggestion would be to at least see it once first in the real world as pilot monitoring while the other crew member (barring they have more experience) operates at pilot flying. Hindsight this is what I wish I would have suggested to the Captain prior to operating the flight into DCA.

Synopsis

Air carrier First Officer reported a terrain obstacle warning while descending on a charted visual approach in daylight VMC conditions. The crew identified the obstacle, corrected the flight path, and landed safely.

Time / Day

Date : 202308

Local Time Of Day : 0001-0600

Place

Locale Reference.ATC Facility : PDX.Tower

State Reference : OR

Altitude.MSL.Single Value : 2500

Aircraft

Reference : X

ATC / Advisory.Tower : PDX

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 : Cargo / Freight / Delivery

Nav In Use : FMS Or FMC

Nav In Use : GPS

Nav In Use.Localizer/Glideslope/ILS : ILS 28L

Flight Phase : Final Approach

Airspace.Class C : PDX

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

ASRS Report Number.Accession Number : 2027831

Human Factors : Troubleshooting

Human Factors : Workload

Human Factors : Situational Awareness

Human Factors : Time Pressure

Events

Anomaly.ATC Issue : All Types

Anomaly.Deviation - Altitude : Overshoot

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

Anomaly.Ground Event / Encounter : Ground Equipment Issue

Anomaly.Inflight Event / Encounter : Other / Unknown

Detector.Person : Flight Crew

When Detected : In-flight

Result.General : Maintenance Action

Result.Flight Crew : Regained Aircraft Control

Result.Flight Crew : Overrode Automation

Assessments

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

Primary Problem : ATC Equipment / Nav Facility / Buildings

Narrative: 1

We had another glideslope anomaly on Runway 28L in PDX today. Same as prior incidents, as it captured the glide slope, it pitched down rather suddenly below the glideslope. I immediately recognized the situation and told my First Officer who was flying to click off the autopilot. Without delay he smoothly returned us to the glideslope. No further incident. I didn't quite catch what it was but at one point one of the FMA's had a horizontal yellow line through it. I wrote it up just in case it was an AC issue but Maintenance ran a quick test and it came back as a flag on the localizer beam. It might be good to add a note in the company pages as a heads up.

Synopsis

Air carrier Captain reported the autopilot suddenly pitched down after capturing the glideslope for Runway 28L at PDX. The pilot flying disconnected the AP and manually completed the approach. Upon further review it was discovered that the error was in the localizer signal.

Time / Day

Date : 202308
Local Time Of Day : 0601-1200

Place

Locale Reference.ATC Facility : RJJJ.ARTCC
State Reference : FO
Altitude.MSL.Single Value : 30000

Aircraft

Reference : X
ATC / Advisory.Center : RJJJ
Aircraft Operator : Air Carrier
Make Model Name : Commercial Fixed Wing
Crew Size.Number Of Crew : 3
Operating Under FAR Part : Part 121
Flight Plan : IFR
Mission : Passenger
Nav In Use : FMS Or FMC
Nav In Use : GPS
Flight Phase : Cruise
Route In Use : Oceanic
Airspace.Class A : ZZZ

Component : 1

Aircraft Component : GPS & Other Satellite Navigation
Aircraft Reference : X
Problem : Malfunctioning

Component : 2

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

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 : 2027712
Human Factors : Troubleshooting
Human Factors : Situational Awareness
Human Factors : Human-Machine Interface

Events

Anomaly.Aircraft Equipment Problem : Less Severe
Anomaly.Deviation - Altitude : Excursion From Assigned Altitude
Anomaly.Deviation / Discrepancy - Procedural : Clearance
Anomaly.Deviation / Discrepancy - Procedural : Published Material / Policy
Detector.Automation : Aircraft Other Automation
Detector.Person : Flight Crew
Were Passengers Involved In Event : N
When Detected : In-flight
Result.Flight Crew : Overrode Automation
Result.Flight Crew : Overcame Equipment Problem
Result.Flight Crew : Took Evasive Action

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

North west of Solon intersection level at flight level 300. We received a GPS terrain warning followed by oral pull up indications. The Captain who was flying the aircraft follow the procedures per the aircraft FOM. Finished the climb with LVL off at approximately flight level 320. We determined that we were on course and there was no terrain in the area. Return to flight level 300 after turning off GPS and resetting the system. No further warnings were encountered. GPS jamming was occurring. GPS jamming may have played a role in this false terrain warning. Training should include a description of the possibility of GPS jamming, causing fostering warning.

Synopsis

Air carrier pilot reported GPS jamming northwest of Solon intersection. The crew deviated from the assigned altitude and then returned after resetting the GPS system.

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 : Instrument

Qualification.Flight Crew : Multiengine

Qualification.Flight Crew : Air Transport Pilot (ATP)

ASRS Report Number.Accession Number : 2027347

Human Factors : Time Pressure

Human Factors : Situational Awareness
Human Factors : Workload

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 ZZZZ 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 ZZZZ 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 ZZZZ [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.

Time / Day

Date : 202308
Local Time Of Day : 1201-1800

Place

Locale Reference.ATC Facility : ZZZ.Tower
State Reference : US
Altitude.AGL.Single Value : 1000

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 : Final Approach

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
Experience.Flight Crew.Total : 889
Experience.Flight Crew.Last 90 Days : 85
Experience.Flight Crew.Type : 546
ASRS Report Number.Accession Number : 2027313
Human Factors : Workload
Human Factors : Time Pressure
Human Factors : Troubleshooting

Events

Anomaly.Deviation - Altitude : Overshoot
Anomaly.Deviation / Discrepancy - Procedural : Published Material / Policy
Anomaly.Deviation / Discrepancy - Procedural : Clearance
Anomaly.Inflight Event / Encounter : CFTT / CFIT
Detector.Automation : Aircraft Terrain Warning
Detector.Person : Flight Crew
When Detected : In-flight
Result.Flight Crew : Regained Aircraft Control
Result.Flight Crew : Overcame Equipment Problem

Result.Flight Crew : Became Reoriented
Result.Aircraft : Equipment Problem Dissipated

Assessments

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

Narrative: 1

We were flying the ILS XXL approach into ZZZ in visual conditions. The First Officer was the Pilot Flying and on consolidation. We got high on glide slope with the autopilot on as the airplane leveled off. The First Officer then disconnected the autopilot and tried to recapture the glide slope. We shot through the glide slope and at about 1000 ft on the altimeter I announce "VS 2000" two times. We then received a "Pull Up" from the Enhanced Ground Proximity Warning System (EGPWS) and the Captain called for a Go Around. We then continued around the pattern and landed.

Synopsis

Air carrier First Officer reported a CFIT event on final approach while correcting to the proper glideslope. Flight crew received a pull up warning which prompted a go around procedure to a safe landing.

Time / Day

Date : 202308

Place

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

Aircraft

Reference : X
Aircraft Operator : Air Carrier
Make Model Name : B737 Undifferentiated or Other Model
Crew Size.Number Of Crew : 2
Operating Under FAR Part : Part 121
Flight Plan : IFR
Mission : Passenger
Flight Phase : Final Approach

Person

Location Of Person.Aircraft : X
Location In Aircraft : Flight Deck
Reporter Organization : Air Carrier
Function.Flight Crew : First Officer
Function.Flight Crew : Pilot Flying
Qualification.Flight Crew : Instrument
Qualification.Flight Crew : Air Transport Pilot (ATP)
Qualification.Flight Crew : Multiengine
Experience.Flight Crew.Last 90 Days : 231.65
Experience.Flight Crew.Type : 990.13
ASRS Report Number.Accession Number : 2027298
Human Factors : Troubleshooting
Human Factors : Workload
Human Factors : Time Pressure

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 : CFTT / CFIT
Detector.Automation : Aircraft Other Automation
When Detected : In-flight
Result.Flight Crew : Overcame Equipment Problem
Result.Flight Crew : Became Reoriented
Result.Aircraft : Equipment Problem Dissipated

Assessments

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

Narrative: 1

Received a "glideslope" aural warning on final approach into Runway XX in ZZZ. Due to resurfacing, the long Runway XY/XZ is closed. Runway XX was in use upon our arrival and has a LDA (Landing Distance Available) of 6,121 ft. NOTAMs listed Runway XZ as wet with condition codes 5/5/5. Flaps 40 Landing Data for Runway XX indicated stopping performance of roughly 5,500 ft with auto-brakes MAX. As PF (Pilot Flying), I briefed the short-field landing procedure and stated I would begin to transition to the lower glideslope reaching 200 ft AGL. Inadvertently, I descended more than intended inside of 200 ft AGL and received a "glideslope" aural warning. I corrected the flight path after receiving the warning, and we landed safely without incident.

Synopsis

Air carrier First Officer reported they inadvertently descended more than intended during short final approach which activated a glideslope warning. Pilot immediately corrected to the proper glideslope and landed safely.

Time / Day

Date : 202308
Local Time Of Day : 0001-0600

Place

Locale Reference.ATC Facility : ZZZ.TRACON
State Reference : US
Altitude.MSL.Single Value : 8500

Aircraft

Reference : X
ATC / Advisory.TRACON : ZZZ
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
Flight Phase : Final Approach
Route In Use : Vectors
Airspace.Class D : ZZZ

Person

Location Of Person.Facility : ZZZ.TRACON
Reporter Organization : Government
Function.Air Traffic Control : Approach
Qualification.Air Traffic Control : Fully Certified
Experience.Air Traffic Control.Time Certified In Pos 1 (yrs) : 2
ASRS Report Number.Accession Number : 2027003
Human Factors : Confusion
Human Factors : Situational Awareness
Human Factors : Communication Breakdown
Human Factors : Time Pressure
Communication Breakdown.Party1 : ATC
Communication Breakdown.Party2 : Flight Crew

Events

Anomaly.ATC Issue : All Types
Anomaly.Deviation - Altitude : Overshoot
Anomaly.Deviation / Discrepancy - Procedural : Clearance
Anomaly.Inflight Event / Encounter : CFTT / CFIT
Detector.Person : Air Traffic Control
When Detected : In-flight
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 : Human Factors
Contributing Factors / Situations : Procedure
Primary Problem : Human Factors

Narrative: 1

I was working ZZZ Approach/Departure. Instructed Aircraft X to fly heading 270 to the localizer and descend and maintain 11,000 ft. As the aircraft tracked inbound I instructed Aircraft X to descend and maintain 9,000 ft. I observed the track at 8,900 ft. Thinking they were leveling off I continued to monitor the track. When the data block read 8,700 ft I issued a low altitude alert. The lowest I observed the track was 8,500 ft. and Aircraft X climbed to 9,000 ft. I would recommend I not wait to see if the aircraft is just having trouble leveling off before I issue a low altitude alert.

Synopsis

A TRACON Controller reported a Widebody descended below their assigned altitude and below the Minimum Vectoring Altitude.

Time / Day

Date : 202308

Place

Locale Reference.Airport : ZZZZ.Airport

State Reference : FO

Altitude.MSL.Single Value : 7700

Environment

Flight Conditions : VMC

Light : Night

Aircraft

Reference : X

Aircraft Operator : Air Carrier

Make Model Name : B737 Undifferentiated or Other Model

Crew Size.Number Of Crew : 2

Operating Under FAR Part : Part 121

Flight Plan : IFR

Mission : Passenger

Flight Phase : Final Approach

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 : Air Transport Pilot (ATP)

Qualification.Flight Crew : Multiengine

Qualification.Flight Crew : Instrument

Experience.Flight Crew.Last 90 Days : 114

Experience.Flight Crew.Type : 114

ASRS Report Number.Accession Number : 2026326

Human Factors : Human-Machine Interface

Human Factors : Situational Awareness

Human Factors : Confusion

Person : 2

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 : Instrument

Qualification.Flight Crew : Multiengine

Qualification.Flight Crew : Air Transport Pilot (ATP)

Experience.Flight Crew.Last 90 Days : 205

Experience.Flight Crew.Type : 886

ASRS Report Number.Accession Number : 2026752
Human Factors : Human-Machine Interface
Human Factors : Situational Awareness

Events

Anomaly.Deviation - Altitude : Crossing Restriction Not Met
Anomaly.Deviation - Altitude : Overshoot
Anomaly.Deviation / Discrepancy - Procedural : Published Material / Policy
Anomaly.Deviation / Discrepancy - Procedural : Clearance
Anomaly.Inflight Event / Encounter : CFTT / CFIT
Detector.Automation : Aircraft Terrain Warning
When Detected : In-flight
Result.General : Flight Cancelled / Delayed
Result.Flight Crew : FLC complied w / Automation / Advisory
Result.Flight Crew : Executed Go Around / Missed Approach

Assessments

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

Narrative: 1

Approaching ZZZZ the FO (First Officer) and I briefed the ZZZZZ STAR with the ZZZZZ transition to ILS Runway XX. During the brief we confirmed the STAR and ILS Runway XX approach were joined via the ZZZZZ transition. Once transferred to the Approach Controller we were cleared direct to ZZZZZ and cleared for the ILS Runway XX approach. Because we were cleared for the approach, the STAR and ILS approach were joined via the ZZZZZ transition, and the vertical mode was VNAV PATH, I called for and the FO set the FAF altitude of 7700 ft. The course change between the approach to ZZZZZ and the final approach course was nearly 90 degrees. During the descent I opened and closed the SPEED window for speed control. I made a mental note that the aircraft seemed to be lower by about 100 ft. than the mandatory 9000 ft. at ZZZZZ as it made the turn to join the final approach course. I attributed this to the fact that ZZZZZ was a fly-by point and figured I was simply miscalculating where the abeam point was. As we were now on a published portion of the approach with VNAV still selected I called for touchdown elevation to be set in the MCP (Mode Control Panel) and armed the approach at the same time. VOR/LOC and glideslope were armed and VOR/LOC captured. Shortly afterward the FO made a comment about our altitude and the restriction at ZZZZZ1. Shortly after I faintly heard "caution, terrain" from the aural warning unit. I immediately disconnected the autopilot and autothrottle and added full power and pitched up to approximately 20 degrees nose up. What followed was "clunky" go-around procedure as I was suffering a little from the startle effect. The aircraft was returned to a clean configuration and a go-around was called by the FO to ATC. ATC instructed us to climb to 11000 ft. and issued a turn. ATC issued vectors for an additional approach and a subsequent ILS Runway XX was successful. We landed, taxied in, and parked with no further issue.

Narrative: 2

After two aircraft swaps with a return to gate and almost 3 hours late, we proceeded to ZZZZ with no further issues until we started the approach. With thunderstorms in the area and around the airport we got direct to ZZZZZ which is one of the initial approach fixes on the ILS Runway XX. Prior to crossing ZZZZZ we were instructed to cross ZZZZZ at 9000 ft. and cleared for the ILS Runway XX. As we crossed ZZZZZ the Captain pressed Approach

Mode on MCP (Mode Control Panel) and asked to set touchdown zone elevation, which I did. I believed since we had VNAV engaged the aircraft would respect the altitudes on the approach until interception of the glideslope. As the aircraft intercepted VOR/LOC between ZZZZZ and ZZZZZ1 I looked outside and even when it was dark, I could see terrain getting closer. The Captain I believe had terrain mode and I had radar mode on my screen. I checked the approach chart and our altitude was below the minimum altitude of 8300 ft. published at ZZZZZ1. I immediately told the Captain to check altitude and that we were below the published altitude. He commanded a go-around at which point we got a GPWS caution but we were climbing. We called Approach and told them we were going around. We climbed and set up for another approach and landed safely with no issues.

Synopsis

B737 flight crew reported receiving a ground proximity terrain warning during approach while descending below the minimum altitude. After hearing the ground proximity aural warning, the flight crew conducted a go-around to a safe landing.

Time / Day

Date : 202308

Local Time Of Day : 1201-1800

Place

Locale Reference.ATC Facility : ZZZ.ARTCC

State Reference : US

Altitude.MSL.Single Value : 41000

Environment

Flight Conditions : VMC

Light : Daylight

Aircraft

Reference : X

ATC / Advisory.Center : ZZZ

Aircraft Operator : Air Taxi

Make Model Name : EMB-505 / Phenom 300

Crew Size.Number Of Crew : 2

Operating Under FAR Part : Part 135

Flight Plan : IFR

Mission : Passenger

Flight Phase : Cruise

Airspace.Class A : ZZZ

Component

Aircraft Component : Pressurization System

Aircraft Reference : X

Problem : Malfunctioning

Person

Location Of Person.Aircraft : X

Location In Aircraft : Flight Deck

Reporter Organization : Air Taxi

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 : Flight Instructor

Qualification.Flight Crew : Instrument

Experience.Flight Crew.Total : 1700

Experience.Flight Crew.Last 90 Days : 17

Experience.Flight Crew.Type : 380

ASRS Report Number.Accession Number : 2026166

Human Factors : Communication Breakdown

Human Factors : Situational Awareness

Human Factors : Time Pressure

Human Factors : Troubleshooting

Human Factors : Workload

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

Events

Anomaly.Aircraft Equipment Problem : Critical
Anomaly.ATC Issue : All Types
Anomaly.Deviation - Altitude : Overshoot
Anomaly.Deviation - Track / Heading : All Types
Anomaly.Deviation / Discrepancy - Procedural : Published Material / Policy
Anomaly.Deviation / Discrepancy - Procedural : Clearance
Detector.Automation : Aircraft Other Automation
Detector.Person : Flight Crew
Result.Flight Crew : Overcame Equipment Problem
Result.Air Traffic Control : Issued New Clearance

Assessments

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

Narrative: 1

My Captain and I noticed while cruising at FL410 that the cabin rate kept going up and down. We tried to notify ATC that we needed to descend as soon as possible but we struggled to find time on the radio to talk. By the time we talked, we got a Cabin Alt High CAS message and executed the procedure. The Phenom automatically did the emergency descent while we were trying to do it so we were a little flustered and didn't maintain the heading as directed. This was all while putting on our masks. Upon leveling off at 10,000 ft. we undershot it due to the high workload and got down to about 9600 ft. and then corrected.

Synopsis

EMB-505 First Officer reported a loss of cabin pressure at cruise altitude and as the flight crew attempted to perform an emergency descent under ATC control, the aircraft completed the descent automatically. The flight crew was under high workload and descended below the level-off but got back to the correct altitude soon after.

Time / Day

Date : 202308

Local Time Of Day : 0001-0600

Place

Locale Reference.Airport : ZZZ.Airport

State Reference : US

Aircraft

Reference : X

ATC / Advisory.Tower : 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 : Initial Approach

Airspace.Class C : 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 : 2025875

Human Factors : Situational Awareness

Human Factors : Human-Machine Interface

Events

Anomaly.Deviation - Altitude : Overshoot

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

Anomaly.Deviation / Discrepancy - Procedural : Clearance

Anomaly.Inflight Event / Encounter : CFTT / CFIT

Detector.Person : Air Traffic Control

When Detected : In-flight

Result.Flight Crew : Returned To Clearance

Result.Flight Crew : Became Reoriented

Result.Air Traffic Control : Issued Advisory / Alert

Assessments

Contributing Factors / Situations : Human Factors

Primary Problem : Human Factors

Narrative: 1

Soon after joining final ZZZ tower notified us of a low altitude alert and gave us the altimeter setting of 29.54. I saw that I had heard the ATIS incorrectly of 29.94 no 29.54. At that point we set our altimeter to the correct setting and climbed to the appropriate altitude, and made a stabilized approach from that point on. Misheard altimeter setting from ATIS, caused a low altitude alert, corrected and made stabilized approach. On short flights, to double check altimeter settings.

Synopsis

CRJ-900 pilot reported receiving a low altitude alert from ATC on final approach as a result of setting the altimeter incorrectly and descending too low. ATC issued current altimeter setting and flight crew climbed back to appropriate altitude to continue the approach.

Time / Day

Date : 202308

Local Time Of Day : 1201-1800

Place

Locale Reference.Airport : MDW.Airport

State Reference : IL

Relative Position.Distance.Nautical Miles : 5

Altitude.MSL.Single Value : 1800

Environment

Light : Daylight

Aircraft

Reference : X

ATC / Advisory.TRACON : C90

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 E : MDW

Component

Aircraft Component : MCP

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 : Captain

Qualification.Flight Crew : Air Transport Pilot (ATP)

Qualification.Flight Crew : Instrument

Qualification.Flight Crew : Multiengine

ASRS Report Number.Accession Number : 2025566

Human Factors : Communication Breakdown

Human Factors : Confusion

Human Factors : Situational Awareness

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 : First Officer
Function.Flight Crew : Pilot Flying
Qualification.Flight Crew : Instrument
Qualification.Flight Crew : Multiengine
Qualification.Flight Crew : Air Transport Pilot (ATP)
Experience.Flight Crew.Last 90 Days : 150
Experience.Flight Crew.Type : 150
ASRS Report Number.Accession Number : 2026271
Human Factors : Situational Awareness
Human Factors : Human-Machine Interface
Human Factors : Communication Breakdown
Communication Breakdown.Party1 : Flight Crew
Communication Breakdown.Party2 : Flight Crew

Events

Anomaly.Deviation - Altitude : Crossing Restriction Not Met
Anomaly.Deviation - Altitude : Overshoot
Anomaly.Deviation / Discrepancy - Procedural : Published Material / Policy
Anomaly.Deviation / Discrepancy - Procedural : Clearance
Anomaly.Inflight Event / Encounter : CFTT / CFIT
Detector.Automation : Air Traffic Control
Detector.Person : Air Traffic Control
When Detected : In-flight
Result.Flight Crew : Returned To Clearance
Result.Air Traffic Control : Issued Advisory / Alert

Assessments

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

Narrative: 1

On FISSK 6 Arrival. We are at 4000 ft ATC gives us descend to 2500 ft. We are 3-5 miles SE GLEAM, so low alt assignment in my opinion since GLEAM is 4000 ft. We are in VNAN LNAV at this point. ATC gives us direct to runts clear for the ILS 31 Center. ATC then gives us direct RUNTS cleared for the approach. My head is down, tuning Tower frequency, verifying ILS parameters on my electronic flight bag. First Officer (F/O) accidentally selected vertical speed to go down to 1700 ft. Once I look up, I realize we are low ATC and calls a low altitude alert. I have F/O climb to maintain 2500 ft we intercepted glideslope continue the approach no further incident. A lapse in my scan also contributed to not catching our descent being in Vertical Speed not in LNAV. ATC should not give lower than what is on the arrival or published altitudes on approach if ILS is to be used in VMC conditions. Pilot communication must be explicit. Any time selection is implemented on the Mode Control Panel.

Narrative: 2

When cleared approach, at 2500 ft set 1700 ft before I verified alt hold acquired. Went below alt at runts however set final approach altitude and never went below this or would

have with current mode set. Failed to see runts was still in front of us and alt hold was not on, before I set final approach altitude. Once act issued low alt alert, immediately climbed to 2500 ft. When passed runts, set 1700 ft again, made sure app was armed, then captured. Set zeros. Landed normally.

Synopsis

Air carrier crew reported receiving a low altitude alert from ATC while descending on the initial approach to MDW airport. The crew climbed back to assigned altitude and completed the approach.

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.

Time / Day

Date : 202308

Local Time Of Day : 1201-1800

Place

Locale Reference.Airport : ZZZ.Airport

State Reference : US

Altitude.AGL.Single Value : 700

Environment

Flight Conditions : VMC

Ceiling : CLR

Aircraft : 1

Reference : X

ATC / Advisory.Tower : ZZZ

Aircraft Operator : Corporate

Make Model Name : Super King Air 350

Crew Size.Number Of Crew : 1

Operating Under FAR Part : Part 91

Flight Plan : IFR

Flight Phase : Initial Climb

Route In Use : Vectors

Airspace.Class D : ZZZ

Aircraft : 2

Reference : Y

ATC / Advisory.Tower : ZZZ

Aircraft Operator : FBO

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

Crew Size.Number Of Crew : 1

Operating Under FAR Part : Part 91

Airspace.Class D : ZZZ

Person

Location Of Person.Aircraft : X

Location In Aircraft : Flight Deck

Reporter Organization : Corporate

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 : 2024777

Human Factors : Workload

Human Factors : Time Pressure

Human Factors : Communication Breakdown

Human Factors : Situational Awareness

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

Events

Anomaly.ATC Issue : All Types
Anomaly.Conflict : NMAC
Anomaly.Deviation - Altitude : Excursion From Assigned Altitude
Anomaly.Deviation - Track / Heading : All Types
Anomaly.Deviation / Discrepancy - Procedural : Clearance
Detector.Automation : Aircraft RA
Detector.Person : Flight Crew
When Detected : In-flight
Result.Flight Crew : Took Evasive Action

Assessments

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

Narrative: 1

On Day 0, I was lifting off of Runway XXL at ZZZ. My initial clearance was, "On departure, make a right turn heading 360, radar vectors direct to ZZZZZ, then as filed. Climb and maintain 2000 ft." I had climbed to about 600 - 700 ft. before I was to make my right turn. Just before I was to initiate my turn to the right, I received a TCAS alert. The multi-function display showed the traffic concern as being 300 ft. above me and very close. I quickly looked up to scan for traffic as I was continuing to climb and almost immediately spotted the aircraft ahead of me within close proximity of my aircraft, and much closer than I might normally be comfortable with, especially when it comes to simultaneous operations with parallel runways. I then quickly and somewhat abruptly made a sharp right turn, banking as much as 45 - 50 degrees to the right to evade any potential conflict with the traffic ahead. The aircraft ahead of me was a Piper Cherokee. I had estimated that I had come as close as 300 - 400 ft. of that aircraft before going to my initial heading of 360 degrees. I proactively advised Tower that "I am turning inside of that aircraft ahead" thinking that they might have received an alert in the Control Tower. There was no response from Tower. Once I was headed in the right direction of 360 degrees, and nearing my level-off at 2000 ft., I queried Tower about the traffic conflict. They responded back, "Sorry about that, that was my fault. I thought you were going to turn to a left heading of 150 degrees." After a couple of minutes, I was handed off to Approach and the rest of the flight was uneventful. Later that evening, I initiated contact with Tower to speak with the Manager about this incident. They were not working that evening, but I was advised that my message would be relayed to them. I called again on Day 1 afternoon to see if I could speak with the Manager and they were still not in, but I was told that they got the message and that they would be calling me within 48 hours. On Day 2, I received a call from the Tower Manager. We spoke about the incident and the concerns I had of it ending in a catastrophic accident versus just a near miss. They were very apologetic and professional in relaying to me what they saw as to a few possible reasons why this might have occurred in the first place, yet not excusing the mistake that was made by the Tower Controller at the time that I was flying. They had reviewed the audio recordings and looked at the radar information which showed the near miss. They also checked with a system that is used by aircraft control towers. Through the use of that technology, they were able to ascertain that my aircraft, King Air 350, and the Piper Cherokee were as close as 100 ft. of each other as I was banking away in my abrupt turn to the right. The Tower Manager let me know that this incident was being investigated and analyzed in order to try

to prevent something like this from happening again in the future. They also assured me that the responsibility or blame for this incident should be falling squarely on Air Traffic Control because I correctly read back and executed my clearance as it was laid out. I believe that the cause of this event might have been related to the workload of the Tower Controller, along with a failure to recognize or be aware of the potential traffic conflict that was unfolding in those couple of minutes when both aircraft were departing their respective runways. The other cause of this event was the self-admitted assumption or belief from the Air Traffic Controller that I was supposedly going to turn left initially and not right. There might have been a breakdown of communication from Ground Control to Tower Control of what my specific clearance was, and not what was assumed. The factors selected below are in reference to my impression of what was probably happening in the Control Tower at the time. I am of the opinion that if there are simultaneous pattern operations, then any IFR clearances should have an initial turn away from the parallel runway. In this particular case, if ATC wanted me to take an initial heading of 360 degrees from Runway XX Left, then it should have been a left turn, from Runway XXL, all the way around to a heading of 360 degrees, almost resembling a left teardrop over the field. By the time most aircraft are back overhead the field, they would most likely be significantly above the traffic pattern altitude for most of the light aircraft that might be doing right-closed traffic patterns for Runway XX Right. They typically will fly their patterns between 1000 - 1100 ft. AGL. The other thing I would recommend is for tower controllers to be a bit more proactive about any training aircraft which might be experiencing any drifting on the upwind leg, which might conflict with other aircraft departing from and climbing up from the parallel runway.

Synopsis

B350 Captain reported a traffic conflict while departing from a parallel runway as ATC had issued a clearance that placed the reporter's aircraft in close proximity with another. ATC had assumed the reporter was going to turn to a left heading and failed to provide safe clearance between the two aircraft that were taking off from parallel runways.

Time / Day

Date : 202308
Local Time Of Day : 0601-1200

Place

Locale Reference.Airport : TPA.Airport
State Reference : FL
Relative Position.Angle.Radial : 139
Relative Position.Distance.Nautical Miles : 15
Altitude.MSL.Single Value : 3000

Environment

Flight Conditions : Mixed
Weather Elements / Visibility : Cloudy
Light : Daylight

Aircraft : 1

Reference : X
ATC / Advisory.TRACON : TPA
Aircraft Operator : Personal
Make Model Name : Small Aircraft
Crew Size.Number Of Crew : 1
Operating Under FAR Part : Part 91
Flight Plan : IFR
Mission : Personal
Nav In Use.Localizer/Glideslope/ILS : ILS36
Flight Phase : Descent
Route In Use : Vectors
Airspace.Class E : TPA

Aircraft : 2

Reference : Y
ATC / Advisory.TRACON : TPA
Make Model Name : Any Unknown or Unlisted Aircraft Manufacturer
Airspace.Class E : PIE

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 : Private
Qualification.Flight Crew : Instrument
Experience.Flight Crew.Total : 122
Experience.Flight Crew.Last 90 Days : 12
Experience.Flight Crew.Type : 12
ASRS Report Number.Accession Number : 2024070
Human Factors : Situational Awareness

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

Events

Anomaly.ATC Issue : All Types
Anomaly.Conflict : NMAC
Anomaly.Deviation - Altitude : Excursion From Assigned Altitude
Detector.Automation : Aircraft Other Automation
Detector.Person : Flight Crew
Miss Distance.Horizontal : 150
Miss Distance.Vertical : 50
When Detected : In-flight
Result.Flight Crew : Took Evasive Action
Result.Air Traffic Control : Separated Traffic

Assessments

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

Narrative: 1

We were in a Aircraft X on our way from ZZZ to St. Petersburg on an IFR flight plan. After we had planned an approach to Runway 18 at PIE and were already northwest of the airport, ATC advised us that the wind had shifted and we should now plan an ILS approach to Runway 36 for St. Petersburg. So we flew south again at 4000 feet. ATC instructed us to descend to 3000 feet and fly a heading of 130, we followed this instruction. We then noticed traffic on our ADS-B and advised ATC about that. After we were ignored at first, we alerted to ATC that we have traffic in sight and that it is a potential factor for us. From there, ATC asked us who had called. We told them that we were calling as Aircraft X and pointed out again that we have traffic in sight at 2 o'clock at the same altitude. ATC then instructed us to fly heading 090. We requested a lower altitude. To avoid a collision we initiated an immediate sharp descent before we were cleared down 2000 feet by ATC. This allowed us to avoid a mid air collision. We made ATC aware that this traffic has passed. ATC apologized.

Synopsis

General aviation pilot reported a near miss with another aircraft during initial approach to PIE airport. The pilot identified the traffic on ADS-B, alerted ATC to the traffic, then initiated an immediate descent to avoid the conflict and told ATC the traffic had passed.

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 : Multiengine
Qualification.Flight Crew : Instrument
Qualification.Flight Crew : Air Transport Pilot (ATP)
ASRS Report Number.Accession Number : 2023956
Human Factors : Workload
Human Factors : Troubleshooting
Human Factors : Situational Awareness
Human Factors : Confusion
Human Factors : Communication Breakdown
Human Factors : Time Pressure
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 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, spbrk 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, spdbkr 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.

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.

Time / Day

Date : 202308

Local Time Of Day : 1801-2400

Place

Locale Reference.ATC Facility : ZLA.ARTCC

State Reference : CA

Environment

Light : Night

Aircraft : 1

Reference : X

ATC / Advisory.Center : ZLA

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 : Climb

Airspace.Class A : ZLA

Aircraft : 2

Reference : Y

ATC / Advisory.Center : ZLA

Aircraft Operator : Air Carrier

Make Model Name : Widebody Transport

Crew Size.Number Of Crew : 2

Operating Under FAR Part : Part 121

Flight Plan : IFR

Mission : Passenger

Flight Phase : Climb

Airspace.Class A : ZLA

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 : Air Transport Pilot (ATP)

Qualification.Flight Crew : Multiengine

Qualification.Flight Crew : Instrument

ASRS Report Number.Accession Number : 2023557

Analyst Callback : Attempted

Person : 2

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
Experience.Flight Crew.Last 90 Days : 170
Experience.Flight Crew.Type : 3800
ASRS Report Number.Accession Number : 2023575

Events

Anomaly.Deviation - Altitude : Overshoot
Anomaly.Deviation / Discrepancy - Procedural : Clearance
Anomaly.Inflight Event / Encounter : Wake Vortex Encounter
Detector.Person : Flight Crew
When Detected : In-flight
Result.Flight Crew : Returned To Clearance

Assessments

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

Narrative: 1

We were climbing to assigned altitude and hit wake turbulence from a heavy Aircraft Y ahead 10 NM, which had climbed through the altitude we were passing through. I disengaged the autopilot and maintained control of the aircraft. After the event we had passed through our assigned altitude by approximately 400 ft. First Officer notified ATC, and I descended back down to assigned altitude. Flight continued with no other issues. Went through assigned altitude due to encountered wake turbulence.

Narrative: 2

We were cleared to climb to FL250. We were following another aircraft. While climbing through approximately FL240 we experienced wake turbulence. During the recovery the Captain disconnected the autopilot and we leveled off at FL255 and corrected back to our clearance limit of FL250. I let ATC know as soon as possible. ATC said there was no problem. We were also in a very light -700. The rest of the flight was uneventful. Climbing to new altitude, experienced wake turbulence and recovery caused us to overshoot our altitude. Unsure what else could be done.

Synopsis

B737-700 flight crew reported experiencing wake turbulence while climbing to assigned altitude and proceeded to overshoot the altitude. ATC was informed and the Captain corrected the aircraft back to the assigned altitude.

Time / Day

Date : 202303

Local Time Of Day : 1201-1800

Place

Locale Reference.ATC Facility : MCO.TRACON

State Reference : FL

Altitude.MSL.Single Value : 5150

Environment

Flight Conditions : VMC

Weather Elements / Visibility.Visibility : 10

Light : Daylight

Ceiling.Single Value : 25000

Aircraft : 1

Reference : X

ATC / Advisory.TRACON : MCO

Aircraft Operator : Personal

Make Model Name : Gulfstream V / G500 / G550

Crew Size.Number Of Crew : 2

Operating Under FAR Part : Part 91

Flight Plan : IFR

Mission : Passenger

Flight Phase : Climb

Route In Use.SID : DDANY3

Airspace.Class B : MCO

Aircraft : 2

Reference : Y

ATC / Advisory.TRACON : MCO

Aircraft Operator : Air Carrier

Make Model Name : B757 Undifferentiated or Other Model

Crew Size.Number Of Crew : 2

Operating Under FAR Part : Part 121

Flight Plan : IFR

Flight Phase : Climb

Airspace.Class B : MCO

Person

Location Of Person.Aircraft : X

Location In Aircraft : Flight Deck

Reporter Organization : Personal

Function.Flight Crew : Captain

Function.Flight Crew : Pilot Flying

Qualification.Flight Crew : Flight Instructor

Qualification.Flight Crew : Instrument

Qualification.Flight Crew : Multiengine

Qualification.Flight Crew : Air Transport Pilot (ATP)

Experience.Flight Crew.Total : 5100
Experience.Flight Crew.Last 90 Days : 90
Experience.Flight Crew.Type : 2000
ASRS Report Number.Accession Number : 1984233
Human Factors : Situational Awareness
Analyst Callback : Attempted

Events

Anomaly.Deviation - Altitude : Crossing Restriction Not Met
Anomaly.Deviation - Altitude : Overshoot
Anomaly.Deviation / Discrepancy - Procedural : Published Material / Policy
Anomaly.Deviation / Discrepancy - Procedural : Clearance
Anomaly.Inflight Event / Encounter : Wake Vortex Encounter
Detector.Person : Flight Crew
When Detected : In-flight
Result.Flight Crew : Became Reoriented

Assessments

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

Narrative: 1

Departure out of MCO called for the first restriction at or below 5,000 ft. I elected to select VNAV as the Pilot Flying (PF) for the departure mode. After a runway change, we delayed departure for wake turbulence avoidance from a departed 757 ahead of us, which I believe caused the ride to be a little bumpier than it would have otherwise been. On climb out, our vertical speed had reached a high rate (> 3,000 fpm? But probably much higher), and as I was in the right turn off of runway I heard the VNAV altitude alert chime, I looked down at the VSD, which I quickly noticed (remembered) had the BELOW 5,000 on it. I queried the Pilot Monitoring (PM) if that first altitude was below 5,000 ft., and the PM didn't respond. At this point I believe we were going through > 4,000 ft. with a very fast rate of closure on the altitude restriction. I said aloud, "It's 5,000. I'm going to level", at which point I started applying forward pressure on the yoke to level off. I didn't want to unload the airplane abruptly, so I ended up leveling off around 100-150 ft. high, and slowly corrected back down to 5,000 ft., and made the below restriction at the waypoint, as required. I could have prepared for this altitude restriction better by using the Vertical Speed mode instead of VNAV (VFLCH) and setting the altitude selector to 5,000 ft., then changing the altitude selector after passing the restricted waypoint, which would have given me much more precise control over the rate of ascent & level off. Specifically calling out any "BELOW" restrictions and a plan to meet it would have made a better briefing. Contributing factors were - The G550 has very high climb performance, especially when light. We were a relatively light weight that day, at sea level. We were quick turning. Although we didn't rush and thoroughly briefed, we may have had more time to "think about it" and elected to brief the alternate procedure of using VS instead of VFLCH on departure. Contributing to this was increased crew focus on the runway change during taxi and wake turbulence avoidance, plus the updrafts during climb out. The PM is relatively new to the aircraft, which may have contributed to task saturation after departure, decreasing the SA (Situational Awareness) as well.

Synopsis

G550 Captain reported a wake turbulence encounter contributed to an altitude overshoot departing MCO in trail of a B757.