

ASRS Database Report Set

Controlled Flight Toward Terrain

Report Set Description.....	A sampling of reports referencing inadvertent controlled flight towards terrain.
Update Number.....	34.0
Date of Update	November 29, 2018
Number of Records in Report Set.....	50
Number of New Records in Report Set	50
Type of Records in Report Set.....	For each update, new records received at ASRS will displace a like number of the oldest records in the Report Set, with the objective of providing the fifty most recent relevant ASRS Database records. Records within this Report Set have been screened to assure their relevance to the topic.

National Aeronautics and
Space Administration

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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 that reads "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: 1584665 *(1 of 50)*

Synopsis

A320 Captain reported a CFTT/unstable approach due to human factors.

ACN: 1583671 *(2 of 50)*

Synopsis

CRJ-200 First Officer reported a Terrain Warning while on vectors to final.

ACN: 1582241 *(3 of 50)*

Synopsis

E145 Captain reported a GPWS warning on approach with the terrain in sight.

ACN: 1582231 *(4 of 50)*

Synopsis

CRJ-700 flight crew reported executing a go-around after receiving an GPWS flap configuration warning.

ACN: 1582185 *(5 of 50)*

Synopsis

A320 flight crew reported FMC issues resulted in an unstabilized approach and low altitude alert in visual conditions.

ACN: 1582148 *(6 of 50)*

Synopsis

B737 flight crew reported two TCAS RA's while on approach to DEN that resulted in a missed approach.

ACN: 1581891 *(7 of 50)*

Synopsis

CRJ-900 flight crew reported descending below minimum sector altitude (MSA) while executing a visual approach.

ACN: 1581737 *(8 of 50)*

Synopsis

ROA TRACON Controller reported airborne conflict between two aircraft, after being distracted by a third aircraft that was VFR in IMC.

ACN: 1581729 *(9 of 50)*

Synopsis

Piper Warrior II pilot reported practicing maneuvers below FAR-mandated altitudes and continuously ignoring the terrain warning system.

ACN: 1581106 *(10 of 50)*

Synopsis

D10 Controller reported a twin Cessna pilot descended below clearance in low IFR weather.

ACN: 1580539 *(11 of 50)*

Synopsis

B737-800 flight crew reported that autoflight mismanagement led to a "Don't sink. Pull up" warning on departure.

ACN: 1580443 *(12 of 50)*

Synopsis

CRJ-200 Captain reported the flight crew received Caution Terrain and Terrain Pull Up warnings while on radar vectors from ATC for the same approach during two separate approach attempts.

ACN: 1580436 *(13 of 50)*

Synopsis

Air carrier pilot reported receiving a ground proximity warning twice while being vectored for an ILS Approach.

ACN: 1580241 *(14 of 50)*

Synopsis

ZLC Controller reported a pilot not following the SID and entering low terrain twice.

ACN: 1580085 *(15 of 50)*

Synopsis

Air carrier pilot reported receiving a short GPWS aural alert during the turn to final approach course to Runway 19 at Jackson Hole Airport.

ACN: 1580027 *(16 of 50)*

Synopsis

Pilot reported receiving GPWS Alerts and a Pull-up Warning during vectors to the ILS 4 to Lynchburg Regional Airport.

ACN: 1578727 *(17 of 50)*

Synopsis

Air carrier Captain reported a ground proximity Terrain warning while on visual approach.

ACN: 1578340 *(18 of 50)*

Synopsis

ZDV Center Controller reported an aircraft departing VFR, needing IFR, and entering a lower Minimum IFR Altitude area.

ACN: 1577589 *(19 of 50)*

Synopsis

CRJ pilot reported responding to a EGPWS alert while on a visual approach.

ACN: 1577415 *(20 of 50)*

Synopsis

ZDC ARTCC Controller reported an airspace violation, a low altitude alert, and communication problem with a local Tower.

ACN: 1577408 *(21 of 50)*

Synopsis

D01 TRACON reported an aircraft not following directions and entering a lower Minimum Vectoring Altitude (MVA) for a short while.

ACN: 1576795 *(22 of 50)*

Synopsis

LA-4 A/B Buccaneer single pilot executing an instrument approach reported that Tower received a low altitude alert warning.

ACN: 1576573 *(23 of 50)*

Synopsis

Atlanta Center Controller reported an unsafe situation relating to traffic, weather, and Minimum IFR Altitude.

ACN: 1576365 *(24 of 50)*

Synopsis

CRJ Captain reported that a false terrain warning sounded during descent.

ACN: 1576173 *(25 of 50)*

Synopsis

GA pilot reported aircraft contacted a power line during descent into airport at night.

ACN: 1575652 *(26 of 50)*

Synopsis

Two Tower Controllers reported a P180 failed to change frequencies, which resulted in maintaining an altitude which triggered a low altitude alert.

ACN: 1575482 *(27 of 50)*

Synopsis

A B737 flight crew reported descending for an approach prior to receiving clearance and then being vectored below the Minimum Vectoring Altitude by ATC.

ACN: 1575164 *(28 of 50)*

Synopsis

ERJ First Officer reported receiving a Ground Proximity Warning while conducting a visual approach with the terrain in sight.

ACN: 1575051 *(29 of 50)*

Synopsis

Fairbanks Controller reported having a flight of aircraft below the Minimum Vectoring Altitude and waiting until it went into an area of higher terrain. Reporter also stated the flight additionally descended below another MVA and reported doing so.

ACN: 1575043 *(30 of 50)*

Synopsis

NorCal TRACON Controller reported vectoring an aircraft below the Minimum Vectoring Altitude.

ACN: 1575035 *(31 of 50)*

Synopsis

Tower Controller In Charge reported not realizing an aircraft was on a IFR clearance and observed the Local Controller use improper procedures resulting in the aircraft being below the Minimum Vectoring Altitude.

ACN: 1574996 *(32 of 50)*

Synopsis

SR22 pilot reported descending below minimums on an instrument approach.

ACN: 1574643 *(33 of 50)*

Synopsis

NorCal TRACON Controller reported an unsafe situation with a departure off of Livermore airport.

ACN: 1574537 *(34 of 50)*

Synopsis

AS350 Pilot reported starting a descent too early and passing within less than 300 feet of a ridge.

ACN: 1574150 *(35 of 50)*

Synopsis

CRJ Captain reported a low altitude alert from ATC while on approach to MSP.

ACN: 1574043 *(36 of 50)*

Synopsis

Cessna Citation pilot reported receiving a Ground Proximity Warning while conducting a Visual Approach.

ACN: 1573968 *(37 of 50)*

Synopsis

First Officer reported after receiving alerts from ATC, flight crew, and the EPGWS to "Go Around", the Captain continued the landing.

ACN: 1573518 *(38 of 50)*

Synopsis

BE35 pilot reported descending too low waiting for ATC to call the base turn due to traffic.

ACN: 1573325 *(39 of 50)*

Synopsis

CRJ First Officer reported the Captain descended early on a visual approach and failed to follow SOP's on several occasions.

ACN: 1573208 *(40 of 50)*

Synopsis

Salt Lake Center Controller reported an aircraft was allowed to operate below the Minimum En-route Altitude.

ACN: 1572605 *(41 of 50)*

Synopsis

TRACON Controller reported a small aircraft at 8,000 feet entered a higher Minimum Vectoring Altitude.

ACN: 1571965 *(42 of 50)*

Synopsis

Salt Lake ARTCC Controller reported an aircraft descending below a transition altitude by 2,000 feet.

ACN: 1571608 *(43 of 50)*

Synopsis

Learjet 45 pilot reported flying a RNAV/GPS approach when it was not authorized.

ACN: 1571538 *(44 of 50)*

Synopsis

Air carrier First Officer reported distraction of incorrect altimeter setting resulting a terrain warning.

ACN: 1570572 *(45 of 50)*

Synopsis

C208 First Officer reported a fatigued Captain's failure to maintain proper climb profile to reach safe altitude.

ACN: 1570428 *(46 of 50)*

Synopsis

EMB-145 Captain reported receiving an EGPWS obstacle warning on a visual approach to AVP.

ACN: 1570079 *(47 of 50)*

Synopsis

B747 flight crew reported that during climb the aircraft lost all navigation systems and had a dual FMC failure.

ACN: 1569955 *(48 of 50)*

Synopsis

MKC Tower Controller reported the Approach Controller advised them of a Low Altitude Alert for an aircraft on a Visual Approach.

ACN: 1569659 *(49 of 50)*

Synopsis

An ERJ First Officer reported that ATC left the aircraft at a high altitude close to the airport which created a very steep and rapid descent.

ACN: 1569259 *(50 of 50)*

Synopsis

A B767 Captain reported the First Officer descended below the glideslope even though they were using autopilot and were receiving the localizer and glideslope signal.

Report Narratives

Time / Day

Date : 201810
Local Time Of Day : 1801-2400

Place

Locale Reference.Airport : ZZZ.Airport
State Reference : US
Altitude.MSL.Single Value : 1600

Environment

Flight Conditions : VMC

Aircraft

Reference : X
ATC / Advisory.TRACON : ZZZ
Make Model Name : A320
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

Reference : 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 : Air Transport Pilot (ATP)
Experience.Flight Crew.Total : 26000
ASRS Report Number.Accession Number : 1584665
Human Factors : Situational Awareness
Human Factors : Workload

Events

Anomaly.Flight Deck / Cabin / Aircraft Event : Other / Unknown
Anomaly.Deviation - Procedural : Published Material / Policy
Anomaly.Inflight Event / Encounter : Unstabilized Approach
Anomaly.Inflight Event / Encounter : CFIT / 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

I was pilot Flying (PF). Late configuring flaps on [a] night visual approach to ZZZ RWY XXL. Hand flying with auto throttles off. Cause [was] misinterpretation of final approach fix location on Jeppesen chart and GS intercept altitude on chart. I did not see that the GS intercept altitude was only 3 miles from runway and about 1100 [feet] AGL. I assumed most GS intercept altitudes were 1500-2000 AGL and 5-6 miles from runway. I turned base and descended to 1600 [feet]. I was hand flying with auto throttles off for proficiency. I noted I did get about 75-100 low on this approach. My intent was to intercept final at 1600 [feet] and finish configuring full flaps when GS was about 1/2 dot. I did this but as it turns out I was 984 [feet] AGL when it happened so I got a printout showing late configuration. My [situational awareness] was not where it should have been. I did not really even notice I was so low until the 1000 [feet] call was made. At that point I should have gone around per SOP since I was not fully configured for landing. Contributing factors [included] unfamiliar airport. Night. Poor runway lighting coming in on left downwind. Runway lights are very dim and hard to see clearly until established on final. Too much task loading on me. I thought it would have been easier flying by hand but I felt I was definitely in the yellow on this approach because I just don't practice this enough. Lack of regular flying. Me, interpreting a cross as FAF/GS intercept altitudes as always around 1500-2000 AGL and 5-6 miles from runway. The 1600 [feet] published altitude was the trap that set me up on this. I had forgotten field elevation was about 500 [feet]. Suggestions [are] for me, in the future, I will practice no autopilot/no autothrottle approaches only in day VMC to airports I am very familiar with [and] with long stable final approaches anticipated. Night visuals especially from downwinds are a challenge. If unfamiliar with airport I will ask for vectors to intercept ILS in the future. I know it's not [going to] happen but make ZZZZZ at 2100 [feet] the GS intercept altitude point. I noticed also a lot of the ILS approaches into ZZZ have this really low GS intercept altitude. This is not good!

Synopsis

A320 Captain reported a CFTT/unstable approach due to human factors.

Time / Day

Date : 201810
Local Time Of Day : 0601-1200

Place

Locale Reference.Airport : ZZZ.Airport
State Reference : US
Altitude.MSL.Single Value : 5100

Environment

Flight Conditions : IMC
Light : Daylight

Aircraft

Reference : X
ATC / Advisory.TRACON : ZZZ
Aircraft Operator : Air Carrier
Make Model Name : Regional Jet 200 ER/LR (CRJ200)
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.Localizer/Glideslope/ILS : Runway XY
Flight Phase : Initial Approach
Route In Use : Vectors
Airspace.Class C : ZZZ

Person

Reference : 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 : 1583671
Human Factors : Time Pressure
Human Factors : Situational Awareness

Events

Anomaly.Inflight Event / Encounter : CFTT / CFIT
Detector.Automation : Aircraft Terrain Warning
Detector.Person : Flight Crew
When Detected : In-flight
Result.Flight Crew : Requested ATC Assistance / Clarification
Result.Flight Crew : FLC complied w / Automation / Advisory

Result.Flight Crew : Executed Go Around / Missed Approach
Result.Air Traffic Control : Provided Assistance

Assessments

Contributing Factors / Situations : Aircraft
Contributing Factors / Situations : Airspace Structure
Contributing Factors / Situations : Procedure
Primary Problem : Ambiguous

Narrative: 1

On approach to ZZZ, aircraft was receiving vectors to final for the ILS XY. We were told to maintain 5100 ft which we were adhering to as well. The aircraft was approximately 3-5 miles from the NDB at a heading of approximately 080 and an altitude of 5100. We were given the final vector to intercept and cleared for the approach (HDG 020 maintain 5100 ft until established clear for ILS XY) when we simultaneously received the aural "Terrain, Terrain". Captain added thrust, called for go around. Crew accomplished the go around. During climb out informed ATC we were going around. ATC confirmed the altitude that we were at when we received the warning and gave us vectors back out for the ILS XY at a higher intercept altitude. The weather was IMC when we received the terrain warning. We had briefed the terrain, and obstacles in the area as well as the escape maneuver prior to our initial descent into ZZZ. Both MFDs had terrain sweeping active and were showing little to no terrain in our area (few spots of green). On the ground we debriefed what occurred and determined that initiating the go around after "terrain" in IMC conditions was the correct course of action because we could not confirm if it was an erroneous warning. Cause: possible erroneous warning or inappropriate vectoring altitude. Suggestions: make sure verify aircraft position and all altitudes with company charts provided and ATC as well as brief procedures for terrain and go around when operating in airports with mountainous terrain and high volume of go arounds especially when IMC exists.

Synopsis

CRJ-200 First Officer reported a Terrain Warning while on vectors to final.

Time / Day

Date : 201810
Local Time Of Day : 1201-1800

Place

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

Environment

Flight Conditions : VMC
Weather Elements / Visibility : Turbulence

Aircraft

Reference : X
Aircraft Operator : Air Carrier
Make Model Name : EMB ERJ 145 ER/LR
Crew Size.Number Of Crew : 2
Operating Under FAR Part : Part 121
Flight Plan : IFR
Flight Phase : Final Approach
Route In Use : Visual Approach

Person

Reference : 1
Location Of Person.Aircraft : X
Location In Aircraft : Flight Deck
Function.Flight Crew : Captain
Function.Flight Crew : Pilot Not Flying
Qualification.Flight Crew : Instrument
Qualification.Flight Crew : Air Transport Pilot (ATP)
Qualification.Flight Crew : Multiengine
ASRS Report Number.Accession Number : 1582241
Human Factors : Situational Awareness
Human Factors : Human-Machine Interface

Events

Anomaly.Inflight Event / Encounter : Weather / Turbulence
Anomaly.Inflight Event / Encounter : CFTT / CFIT
Detector.Automation : Aircraft Terrain Warning
Detector.Person : Flight Crew
When Detected : In-flight
Result.Flight Crew : FLC complied w / Automation / Advisory

Assessments

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

Narrative: 1

While operating Aircraft X, we had a GPWS event. I was the Pilot Monitoring (PM) and the first officer was the pilot flying (PF). It was a clear day and we had the terrain in sight the whole time. We had been cleared for the visual approach into ZZZ and were configuring to land, coming over the hills/mountains. There was some turbulence and as we were coming over the mountains, we received the GPWS warnings. I had previously mentioned to the first officer it might be advisable to stay slightly high until we we're past the hills/mountains. Once we received the warnings, we immediately stopped the descent and complied with the GPWS command. We continued on with the visual approach and landed without any issue.

We detected the event had occurred when we got the GPWS warning.

The cause of the event could be attributed to the mountainous terrain, slight turbulence, and the fact that we were cleared for the visual approach and descended slightly early coming over the terrain.

Once we received the GPWS warnings, we arrested the descent and complied with the GPWS commands.

To avoid events like this, it might be helpful to delay getting cleared for the visual until you're closer to the airports, past terrain such as hills/mountains. Also, stay at a slightly higher altitude when crossing over terrain such as hills/mountains.

Synopsis

E145 Captain reported a GPWS warning on approach with the terrain in sight.

Time / Day

Date : 201810
Local Time Of Day : 1201-1800

Place

Locale Reference.Airport : ZZZ.Airport
State Reference : US
Altitude.MSL.Single Value : 4000

Environment

Flight Conditions : VMC
Light : Dawn

Aircraft

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

Person

Reference : 1
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)
ASRS Report Number.Accession Number : 1582231
Human Factors : Fatigue
Human Factors : Situational Awareness
Human Factors : Confusion

Events

Anomaly.Deviation - Altitude : Crossing Restriction Not Met
Anomaly.Deviation - Procedural : Published Material / Policy
Anomaly.Inflight Event / Encounter : Unstabilized Approach
Anomaly.Inflight Event / Encounter : CFTT / CFIT
Detector.Person : Flight Crew
When Detected : In-flight
Result.Flight Crew : Executed Go Around / Missed Approach

Assessments

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

Narrative: 1

Day 4 early morning leg. During short vectors to visual approach ATC cleared us to maintain 4000 until established and cleared us for a visual approach. The First Officer (FO), Pilot Flying (PF), maintained 4000 instead of descending to 3000 feet which would have been the FAF altitude and appropriate altitude in order to properly intercept the GS or visual flight path. After established on the localizer course and seeing that the GS was below us by over a dot and a half, I instructed her that she needed to descend to 3000 prior to the FAF to capture the GS. She selected VS down .9 which made us high at the FAF and still not on GS. Autopilot was on at the time and she deselected autopilot (AP) and took manual control of the aircraft at approximately 3500 feet inside the FAF. I asked her once we were back on GS from her manual correction if she wanted AP reengaged. We attempted to reengage but got LOC/PITCH due to incorrect mode selected prior to AP. Our configuration at this time was gear down and flaps 30. We made the 1000 foot call out but she stated stable in error. I made the 500 call out and in error stated stable. At that time we got the audible warning of terrain/flaps and I instructed a go around and when I went to raise flaps to 8 I knew then what we had messed up. We performed the go around, I notified the Flight Attendant (FA) and the passengers that we went around and would be on the ground shortly, re-entered the traffic pattern and landed uneventfully. Cause was being tired from a 0330 wake-up for the van time didn't help, but the root cause was failing to adhere to the checklists and normal flows. There were opportunities as a crew to catch our mistake prior to the warning but we failed, either out of bad habits or being tired...or both. Executing the go around immediately when something wasn't right was the appropriate action. There was no hesitation or either of us trying to troubleshoot or "solve" the problem there. It was go around, re-setup, and try again. Personally, this was a wake up, no matter the crew experience (the FO was senior to me), being tired means check and double check myself and the crew actions because the simplest of things can be missed.

Synopsis

CRJ-700 flight crew reported executing a go-around after receiving an GPWS flap configuration warning.

Time / Day

Date : 201809
Local Time Of Day : 1201-1800

Place

Locale Reference.Airport : ZZZ.Airport
State Reference : US
Altitude.MSL.Single Value : 12000

Environment

Flight Conditions : VMC

Aircraft

Reference : X
ATC / Advisory.TRACON : ZZZ
Aircraft Operator : Air Carrier
Make Model Name : A320
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 E : ZZZ

Component

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

Person : 1

Reference : 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 : Air Transport Pilot (ATP)
Experience.Flight Crew.Total : 26000
Experience.Flight Crew.Last 90 Days : 200
Experience.Flight Crew.Type : 15000
ASRS Report Number.Accession Number : 1582185
Human Factors : Troubleshooting
Human Factors : Human-Machine Interface

Person : 2

Reference : 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)
ASRS Report Number.Accession Number : 1582207
Human Factors : Troubleshooting

Events

Anomaly.Aircraft Equipment Problem : Less Severe
Anomaly.Deviation - Track / Heading : All Types
Anomaly.Deviation - Procedural : Clearance
Anomaly.Inflight Event / Encounter : CFTT / CFIT
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 : Ambiguous

Narrative: 1

Cleared and descending via [the arrival] landing north. Approaching turn [the] aircraft was tracking lateral course normally. Pre extended final approach and noticed route dropping out of FMS. Selected a parallel heading for the downwind while rebuilding arrival. After, engaged auto flight to intercept track for the downwind. Instead of a normal intercept, auto flight commanded at least a 60 degree intercept. While flying through published track and starting a correction, ATC queried. While attempting to become established on downwind track, ATC called out an altitude alert. We advised we were having issues with the FMS and were in VMC conditions with terrain in sight below us. ATC directed a heading eventually to base. All recovery actions were accomplished in VMC. Airport visually acquired and final approach and landing accomplished.

Narrative: 2

Upon descent into ZZZ on the [arrival], we were descending VIA and had passed 12000 feet and were rounding the corner to the downwind and were issued a new altitude to descend to. I can't recall which ALT, possibly 6000 feet or 9000 feet but whatever the altitude, it was the correct one. Around the turn in the STAR is when the captain inadvertently deleted the waypoints on the downwind segment of the STAR. He was trying to add points to the approach segment I believe and then I heard, "oops" or something to that effect. We continued the turn in HDG mode towards ZZZZZ Intersection while I manually rebuilt the arrival. I entered in direct ZZZZZ1 Intersection and then rebuilt ZZZZZ Intersection behind it as the A320 navigates FROM not TO and we needed to be on the correct 164-degree course. We armed the NAV and the aircraft took an almost 90-degree heading to intercept the course. So the aircraft was east of course headed south and then took up the unrealistic intercept pointing the aircraft West. We executed a manual turn south towards ZZZZZ1 Intersection and around that time ATC called to query. We advised her of an "issue with the FMS". We had previously been cleared to descend to lower altitude and ATC told us she was getting a low altitude warning and advised us we

could climb a thousand feet if we needed to. We declined. This was puzzling since we were VMC, the EGPWS terrain on the NAV DISPLAY was all green and it was clear visually to both myself and the captain that we were in no danger of terrain. She gave us a base turn heading and we executed the visual approach to Runway 34L without incident.

To be absolutely clear: while the aircraft was in a [unintended state] due to the lateral navigation error and the ATC-perceived altitude deviation it was absolutely never in any danger of hitting terrain either from visual cues or aircraft warning systems.

Synopsis

A320 flight crew reported FMC issues resulted in an unstabilized approach and low altitude alert in visual conditions.

Time / Day

Date : 201810
Local Time Of Day : 0601-1200

Place

Locale Reference.Airport : DEN.Airport
State Reference : CO
Altitude.MSL.Single Value : 9000

Environment

Light : Dawn

Aircraft : 1

Reference : X
ATC / Advisory.TRACON : D01
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 : Initial Approach
Route In Use : Visual Approach
Airspace.Class B : D01

Aircraft : 2

Reference : Y
ATC / Advisory.TRACON : D01
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
Flight Phase : Initial Approach
Airspace.Class B : D01

Person : 1

Reference : 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 : Multiengine
Qualification.Flight Crew : Instrument
ASRS Report Number.Accession Number : 1582148
Human Factors : Workload

Person : 2

Reference : 2
Location Of Person.Aircraft : X
Location In Aircraft : Flight Deck
Reporter Organization : Air Carrier
Function.Flight Crew : Pilot Flying
Function.Flight Crew : First Officer
Qualification.Flight Crew : Air Transport Pilot (ATP)
Qualification.Flight Crew : Multiengine
Qualification.Flight Crew : Instrument
ASRS Report Number.Accession Number : 5824511
Human Factors : Workload

Events

Anomaly.Conflict : Airborne Conflict
Anomaly.Inflight Event / Encounter : Unstabilized Approach
Anomaly.Inflight Event / Encounter : CFTT / CFIT
Detector.Automation : Aircraft RA
When Detected : In-flight
Result.Flight Crew : Executed Go Around / Missed Approach

Assessments

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

Narrative: 1

Coming into DEN 16L for the visual on an extremely busy morning, we were cleared for the visual to 16L behind [another aircraft], three to five miles ahead of us and were told to hold 160 KIAS to the FAF. On approximately 12-mile final, we heard ATC call out traffic behind us converging towards the parallel 16R. Shortly after, we received our first RA. The First Officer (FO) reacted appropriately and we were quickly Clear of Conflict. We informed Approach and let them know we were continuing. Again, at around a seven or eight mile final, we received an RA to descend.

Following the RA we got fast (approximately 190 KIAS). We also descended to approximately 7600 feet before the RA went away. At that point we began a very shallow non-standard go-around because we were partially configured, closing on the traffic in front of us, and concerned much of a climb would put us into conflict with the traffic behind us again. Frankly, we were threading a needle because ATC had high radio congestion; there was traffic in front of us, traffic to our right, and traffic on approach to our left.

While reacting the second time, we informed ATC and let them know we would be going around. ATC gave us a warning that we were too low, and switched us to Tower for go-around instructions. Once on Tower we began transitioning to a normal go-around and returned to land uneventfully.

Narrative: 2

As we approached from the east, heading west, we were cleared for Visual Approach to 16L. Our interval was [another aircraft] which we had sight of. While turning left onto final we got a TA from traffic behind and above us. I looked outside the right aft window and saw the traffic which was heading east (flying perpendicular to our flight path, and it appeared to be passing behind us (tracking aft of us visually). As I rolled out on final, the TA went away. ATC had not mentioned anything about the traffic behind us.

Once established on final course, we were instructed no slower than 160 knots to FAF. I rolled MCP speed to 160 and began slowing from 180. We then got an RA displaying double red line box above the horizon and "descend" aural warning. I disengaged autopilot and auto throttles and positioned the nose of the aircraft below the red box, approximately on the artificial horizon. The RA went away and I leveled off and continued with the approach manually. The Captain informed ATC of the RA. About 30 seconds later it happens again; and I responded the same. At that point we had descended below glideslope due to RA commands. Once we cleared the RA, we were level around 960 feet AGL. Captain had already called for the go-around so I executed the go-around and started climbing. Go around and subsequent visual approach to landing on 17R was uneventful.

Synopsis

B737 flight crew reported two TCAS RA's while on approach to DEN that resulted in a missed approach.

Time / Day

Date : 201810
Local Time Of Day : 0601-1200

Place

Locale Reference.Airport : CAK.Airport
State Reference : OH
Altitude.MSL.Single Value : 3000

Environment

Flight Conditions : VMC

Aircraft

Reference : X
ATC / Advisory.Tower : CAK
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 : CAK

Person

Reference : 1
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)
ASRS Report Number.Accession Number : 1581891
Human Factors : Communication Breakdown
Human Factors : Human-Machine Interface
Human Factors : Situational Awareness
Communication Breakdown.Party1 : Flight Crew
Communication Breakdown.Party2 : Flight Crew

Events

Anomaly.Conflict : Ground Conflict, Less Severe
Anomaly.Deviation - Procedural : Published Material / Policy
Anomaly.Deviation - Procedural : FAR
Anomaly.Deviation - 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

We were in clear, VFR conditions. Approach Control had previously cleared us down to 3000 ft and direct to the final approach fix on the Localizer 23 into CAK. About 12 miles out, heading direct to the final fix, ATC asked if we had the field in sight. We did and were cleared for the visual approach and sent to tower frequency. We had already begun to slow down and configure while still heading to the final fix even though we had been cleared for the visual approach. As we got a little closer the altitude selector was mistakenly swapped to 1800 ft by the pilot flying. He then selected the vertical speed down and began to descend below 3000 ft, which on the approach plate is the altitude to intercept the glide slope on the ILS 23. Upon questioning by the pilot monitoring, the pilot flying arrested the descent and leveled off. We were fully configured and on speed, so the pilot flying turned the auto pilot off, called to clear his FD, and hand flew the approach and landing. We were in VFR conditions and in sight of the runway and surrounding obstacles at all times. The Tower Controller did get a low altitude alert on us as we descended below the MSA before being established on the localizer. By that time we were correcting, as well as confirmed with the tower that we still had the airport and obstacle/tower in sight. Because of our altitude, when we captured the localizer we were below the glide slope and received a "glide slope" audible warning. Rather than climb up, we remained level until intercepting the glideslope and landed without further incident. Descending below the MSA before intercepting the localizer inbound was poor technique and against company procedure. After discussing it on the ground with the pilot flying, I believe it was a mistake brought on by over thinking by a low time First Officer who is still gaining experience on visual approaches. In his mind he wanted to be at 1800 ft AGL (which would have been 3100 ft MSL) 6 miles out on the approach. That would have put us on the standard 3 degree glide path to the runway. That was proper logic but improper execution as he mistakingly put 1800 in the altitude selector. As the pilot monitoring I should have recognized this well before VS was selected and we began descending. We had been cleared for the visual approach with the runway in sight at all time. I should have also recognized that my fellow crew member was a fairly low time First Officer and given more guidance/technique on how I might fly a visual. At no time were we not in control of the airplane, but the experience was a valuable reminder to me to stay vigilant on the flight deck. Errors can happen to all of us, regardless of background or experience. There are two of us up there to check each other.

Synopsis

CRJ-900 flight crew reported descending below minimum sector altitude (MSA) while executing a visual approach.

Time / Day

Date : 201809

Local Time Of Day : 1201-1800

Place

Locale Reference.ATC Facility : ROA.TRACON

State Reference : VA

Altitude.MSL.Single Value : 3000

Environment

Flight Conditions : Marginal

Aircraft : 1

Reference : X

ATC / Advisory.TRACON : ROA

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.Localizer/Glideslope/ILS : Runway 24

Flight Phase : Final Approach

Airspace.Class C : ROA

Aircraft : 2

Reference : Y

ATC / Advisory.Tower : ROA

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

Flight Plan : IFR

Flight Phase : Initial Climb

Route In Use : Vectors

Airspace.Class C : ROA

Aircraft : 3

Reference : Z

ATC / Advisory.TRACON : ROA

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

Crew Size.Number Of Crew : 1

Flight Plan : VFR

Flight Phase : Cruise

Airspace.Class C : ROA

Person

Reference : 1

Location Of Person.Facility : ROA.TRACON

Reporter Organization : Government

Qualification.Air Traffic Control : Fully Certified

Experience.Air Traffic Control.Time Certified In Pos 1 (yrs) : 1
ASRS Report Number.Accession Number : 1581737
Human Factors : Physiological - Other
Human Factors : Situational Awareness
Human Factors : Time Pressure
Human Factors : Workload
Human Factors : Distraction

Events

Anomaly.ATC Issue : All Types
Anomaly.Conflict : Airborne Conflict
Anomaly.Deviation - Procedural : FAR
Anomaly.Deviation - Procedural : Clearance
Anomaly.Inflight Event / Encounter : VFR In IMC
Anomaly.Inflight Event / Encounter : CFTT / CFIT
Detector.Person : Air Traffic Control
When Detected : In-flight
Result.Flight Crew : Requested ATC Assistance / Clarification
Result.Air Traffic Control : Provided Assistance

Assessments

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

Narrative: 1

Normal East Radar position, weather was reported 10SM OVC012. Aircraft Z departed Runway 34, VFR, to the North East Practice Area. Aircraft X was on final for ILS 34 from the south. Aircraft Y was in the departure list for Runway 34 with a west turnout. Aircraft Z got around 2 miles northeast of the field and encountered clouds and lost site of the surrounding mountains. I informed him he was around 100 feet above the mountain in question and asked his intentions, followed by asking him if he wanted [additional services] and he did. He seemed very spooked and said his passenger was as well. I saw him starting to turn towards the field and thought he could possibly descend rapidly back to the field. I told tower of the [situation] and as a precaution I told them to break him off the approach on a 270, thinking Aircraft Z was going to head straight at the airport that wasn't insight.

The loss of separation comes from the 270 turn off final for Aircraft X and the departure of Aircraft Y on a 250 heading off of Runway 34. I initially thought I had enough lateral separation, then realized it was going to be closer than I assumed and when I saw it, not long after, turned both away from each other. I believe the lateral separation was 2.6 NM.

After Aircraft Z [notified us], I asked him what he wanted to do. I suggested a possible IFR pickup for radar vectors back to ROA for the ILS 34. He said an IFR pickup sounds like the best. I followed it by clearing him, since he was still climbing and was above the MVA in the area. It was when I tried to turn him final to join the approach he informed me that he wasn't IFR rated. We followed by giving him a vector to maintain until we found an airport with suitable VMC. I was unaware of specific phraseology in an IFR pickup, and thought suggesting IFR for an approach--with his agreement, meant he was qualified. I'm unaware that you can't suggest IFR like a SVFR to an aircraft.

No recommendations, just reviewed 7110 Chapter 10 on VFR aircraft encountering bad weather.

Synopsis

ROA TRACON Controller reported airborne conflict between two aircraft, after being distracted by a third aircraft that was VFR in IMC.

Time / Day

Date : 201809

Local Time Of Day : 1201-1800

Place

Locale Reference.Airport : ZZZ.Airport

State Reference : US

Relative Position.Distance.Nautical Miles : 13

Altitude.AGL.Single Value : 400

Environment

Flight Conditions : VMC

Weather Elements / Visibility.Visibility : 10

Light : Daylight

Ceiling.Single Value : 3000

Aircraft

Reference : X

Aircraft Operator : Personal

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

Crew Size.Number Of Crew : 1

Operating Under FAR Part : Part 91

Flight Plan : None

Mission : Training

Flight Phase : Cruise

Route In Use : None

Airspace.Class E : ZZZ

Airspace.Class G : ZZZ

Person

Reference : 1

Location Of Person.Aircraft : X

Location In Aircraft : Flight Deck

Reporter Organization : Personal

Function.Flight Crew : Pilot Flying

Function.Flight Crew : Single Pilot

Qualification.Flight Crew : Student

Experience.Flight Crew.Total : 36

Experience.Flight Crew.Last 90 Days : 36

Experience.Flight Crew.Type : 36

ASRS Report Number.Accession Number : 1581729

Human Factors : Situational Awareness

Events

Anomaly.Deviation - Procedural : Published Material / Policy

Anomaly.Deviation - Procedural : FAR

Anomaly.Inflight Event / Encounter : CFTT / CFIT

Detector.Automation : Aircraft Terrain Warning

Detector.Person : Flight Crew

Miss Distance.Vertical : 400
When Detected : In-flight
Result.Flight Crew : Took Evasive Action
Result.Flight Crew : Became Reoriented

Assessments

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

Narrative: 1

Pilot generally tracked the course of a highway northward towards ZZZ. Roughly 13 nm south of ZZZ pilot practiced steep turns and ground reference maneuvers over a busy interstate at generally 750-1,000 feet AGL. At this altitude the terrain warning system was continually activated. Pilot selected a motor vehicle traveling southbound on the interstate as a reference point to practice turns around a point initiating the maneuver at 600 feet AGL. Altitude was lost in the maneuver after several turns. The pilot noticed an altitude as low as 400 feet AGL, and brought the maneuver up to a higher altitude. Velocity throughout the maneuver was about 100 KIAS, well above stall speed. The most significant contributing factor to the low altitude condition was the pilot ignoring the terrain warning system, which he had done previously when conducting ground reference numbers, along with fixation at a point on the surface without periodic reorientation.

The altitude the aircraft was transiently at would not have allowed an emergency landing without undue hazard to persons or property on the surface, considering that the highway had evening traffic. Altitude awareness and a prudent appreciation of risk would correct the situation if encountered again.

Synopsis

Piper Warrior II pilot reported practicing maneuvers below FAR-mandated altitudes and continuously ignoring the terrain warning system.

Time / Day

Date : 201809

Local Time Of Day : 1801-2400

Place

Locale Reference.Airport : ZZZ.Airport

State Reference : US

Altitude.AGL.Single Value : 2300

Aircraft

Reference : X

ATC / Advisory.TRACON : ZZZ

Make Model Name : Golden Eagle 421

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

Person

Reference : 1

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) : 3.5

ASRS Report Number.Accession Number : 1581106

Human Factors : Situational Awareness

Human Factors : Communication Breakdown

Communication Breakdown.Party1 : ATC

Communication Breakdown.Party2 : Flight Crew

Events

Anomaly.Aircraft Equipment Problem : Less Severe

Anomaly.Deviation - Procedural : Clearance

Anomaly.Inflight Event / Encounter : CFTT / CFIT

Detector.Person : Air Traffic Control

When Detected : In-flight

Result.Air Traffic Control : Provided Assistance

Assessments

Contributing Factors / Situations : Aircraft

Contributing Factors / Situations : Weather

Primary Problem : Aircraft

Narrative: 1

On the day of the incident it was LIFR [Low Instrument Flight Rules] conditions. Aircraft X had just departed RWY XX from ZZZ, and had called me for his check on at about 023 ft. I told him "Radar contact, climb and maintain 040". I then went on with my scan of my sector, and when I came back to Aircraft X, I noticed his altitude was 015 [feet], the pilot had descended on his own, I then asked if everything was ok and if he needed any assistance. The pilot informed me that he was having control issues and was having a hard time keeping his plane in level flight.

I told him ZZZ was 4 or 5 miles south of him if he wanted to return, I then informed the Supervisor of what was going on and coordinated with ZZZ about the situation. The pilot asked me what highway he was flying over, I informed him and ZZZ was 3 miles S/SW of him. The pilot then informed me he lost all his instruments. I then continued to inform him of his position in relation to ZZZ. I also coordinated with ZZZ to issue the pilot a landing clearance if/when he got ZZZ in sight. Thankfully, the pilot was able to finally see ZZZ about 1.5 miles from the field; I issued a landing clearance and switched the pilot over to ZZZ Tower and the pilot did land safely.

While I did not issue the "low altitude alert", which was the reason this incident was brought up again for [report] purposes, I was so engrossed in trying to get the plane and pilot back to the ground safely I should have issued the "low altitude alert".

Synopsis

D10 Controller reported a twin Cessna pilot descended below clearance in low IFR weather.

Time / Day

Date : 201809
Local Time Of Day : 0601-1200

Place

Locale Reference.Airport : ZZZ.Airport
State Reference : US
Altitude.AGL.Single Value : 1000

Environment

Light : Daylight

Aircraft

Reference : X
ATC / Advisory.Tower : ZZZ
Aircraft Operator : Air Carrier
Make Model Name : B737-800
Crew Size.Number Of Crew : 2
Mission : Passenger
Flight Phase : Takeoff
Airspace.Class B : ZZZ

Component

Aircraft Component : FMS/FMC
Aircraft Reference : X
Problem : Improperly Operated

Person : 1

Reference : 1
Location Of Person.Aircraft : X
Location In Aircraft : Flight Deck
Function.Flight Crew : First Officer
Function.Flight Crew : Pilot Flying
Qualification.Flight Crew : Air Transport Pilot (ATP)
ASRS Report Number.Accession Number : 1580539
Human Factors : Communication Breakdown
Human Factors : Situational Awareness
Human Factors : Training / Qualification
Human Factors : Workload
Human Factors : Distraction
Communication Breakdown.Party1 : Flight Crew
Communication Breakdown.Party2 : Flight Crew

Person : 2

Reference : 2
Location Of Person.Aircraft : X
Location In Aircraft : Flight Deck
Reporter Organization : Air Carrier

Function.Flight Crew : Captain
Function.Flight Crew : Pilot Not Flying
Qualification.Flight Crew : Air Transport Pilot (ATP)
Qualification.Flight Crew : Instrument
Experience.Flight Crew.Last 90 Days : 440
ASRS Report Number.Accession Number : 1580572
Human Factors : Workload
Human Factors : Training / Qualification
Human Factors : Distraction
Human Factors : Communication Breakdown
Human Factors : Situational Awareness
Communication Breakdown.Party1 : Flight Crew
Communication Breakdown.Party2 : Flight Crew

Events

Anomaly.Deviation - Speed : All Types
Anomaly.Deviation - Track / Heading : All Types
Anomaly.Deviation - Procedural : Published Material / Policy
Anomaly.Deviation - Procedural : Clearance
Anomaly.Inflight Event / Encounter : CFTT / CFIT
Detector.Automation : Aircraft Other Automation
Detector.Person : Flight Crew
When Detected : In-flight
Result.Flight Crew : FLC complied w / Automation / Advisory
Result.Flight Crew : Became Reoriented

Assessments

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

Narrative: 1

As Pilot Flying (PF) I was to fly the Departure. Performance [program] had generated flaps 25, engine bleeds off, takeoff for us. We had briefed in detail both the departure procedure, which as published showed "Assigned headings 360 degrees clockwise through 080 degrees climbing right turn to 2400 feet, heading 100 degrees before proceeding on course," the call outs we were going to expect, and paid particular attention to how challenging the multiple heading, altitude, and configuration changes were going to be given our heavily loaded -800 aircraft and the short runway.

We both missed the fact that our takeoff was supposed to be an "Engine Bleeds Off" takeoff until we were taxiing to the runway and called Tower to let them know we would need a moment at the end of the taxiway to configure and call them when we were ready for departure. I mentioned to the Captain that other than in the simulator I had never done an engine bleeds off takeoff. The Captain configured the bleed panel for departure and said, "Don't worry about the bleeds; just fly the aircraft and I'll reconfigure them once we are cleaned up." At that point in the event I was solidly "in the Yellow" and probably getting "into the Red" on our CRM model.

We reconfirmed the configuration of the bleeds panel, completed our departure plan and Before Takeoff Checklist then called for takeoff. Tower cleared us for takeoff, "on departure turn left heading 250, cleared for takeoff." The Captain transferred the controls

to me and we both acknowledged that it was going to be even more complicated by an initial right turn to 100 degrees and at 2400 feet, a climbing left turn to heading 250 while leveling at 3000 feet and cleaning up the flaps.

I advanced the throttles and set takeoff thrust. The takeoff roll and call outs were normal and we got airborne. At 400 feet I called for Heading Select and started my right turn. As we approached the minimum cleanup altitude, the Captain said "watch your speed" and I assumed he was afraid that I would overspeed the flaps so instead of calling "Set Speed" in the ensuing confusion I called "Flaps 15" and began a gentle nose over to catch the expected climb profile. Because the Speed bug had not been moved to the "UP" position, the autothrottles pulled back to mid-range thrust as designed to maintain the initial speed setting.

We were just under 2000 feet MSL and we started our left-hand turn to the assigned heading of 250 with the aircraft at flaps 15. I was aware that something was wrong and focused on the flight director and attempting to fly the aircraft when I noticed the red light indicating the autothrottles were off. The Captain said something to the effect of "there's something wrong with the autothrottles" and then said he was re-engaging them. I found out later that he had disengaged them, pushed them forward to get more speed, and then re-engaged them thinking that he had corrected the problem.

We were turning north at under 2000 feet MSL in a left hand turn at about 160 knots. The handling of the aircraft seemed very sluggish and the Captain and I were very confused as evidenced by our lack of communication. What little we did say was focused on getting airspeed. Finally, when we got the Gear warning horn, "Don't Sink", and "Pull Up", I disengaged the autothrottles and moved them forward, rolled partially wings level and got the nose above the horizon on a climbing profile and cleaned up the flaps. It was at that point that we realized our error in failing to set the Speed bug appropriately.

Narrative: 2

We conducted a full Departure Briefing to include a heavy takeoff and the initial departure procedures. Due to some confusion at the gate during pushback, we failed to run a Pushback Checklist. After pushback was complete, I realized this, and we conducted the briefing. We caught the engine bleeds-off takeoff requirement late and configured the aircraft. It was a max thrust takeoff on Runway XXR with an assigned heading "left turn to 250". After takeoff, we started our initial turn in accordance with the SID to 100 degrees. I became focused on the VMO/MMO and minimum maneuver speed tapes- given our heavy weight.

At our cleanup altitude I don't remember the Pilot Flying call for "Set speed, flaps 15, climb thrust", and I failed to monitor for the calls as I was still focused on the speed tapes. I do remember bringing the flaps to 15 as the autothrottles retarded the thrust levers. I disengaged to autothrottles and advanced the thrust levers. The First Officer appeared focused on following the flight directors and flying the SID; turning left to the assigned heading. After the airspeed started to increase I re-engaged the autothrottles, but was slow to set climb speed, and the throttles again retarded. Simultaneously as I again disengaged the autothrottles and manually advanced the thrust levers, we received a momentary "Don't Sink" and a "Pull UP" warning. As the thrust lever advanced the aural alerts ceased. The FO (First Officer) continued to fly the flight director and now with the thrust levers advanced and airspeed increasing we continued the departure and cleaning up on schedule.

I cannot tell you how many times I have replayed this event in my mind. I can't remember

ever having lost situational awareness so fast. Had I called/queried Set speed, flaps 15, climb thrust we could have properly executed the departure. When I dug down deep into my errors, I first failed to timely conduct checklists. Second, I became singularly focused on the airspeed tapes and failed to properly monitor automation (autothrottles) and the minimum cleanup attitude call outs. I also failed to properly communicate changes in automation and flap settings. We also failed to properly respond to the aural warning. As a crew we became laser-focused on separate indications and failed to properly communicate our individual loss of situational awareness; we were both in the Red. I have done many uneventful flaps 25, -800 takeoffs from ZZZ as both the Pilot Flying and Pilot Monitoring. Although there were a few distractions prior to takeoff, the only other differences were my focus on our airspeed, and on the large left turn requirement. As this event is now indelibly embedded in my mind, in the future I will slow down and fully review checklists and aircraft configuration impact on departure procedures. I will also guard against tunnel vision and adhere to assigned duties.

Synopsis

B737-800 flight crew reported that autoflight mismanagement led to a "Don't sink. Pull up" warning on departure.

Time / Day

Date : 201809

Local Time Of Day : 0001-0600

Place

Locale Reference.Airport : ZZZ.Airport

State Reference : US

Altitude.MSL.Single Value : 5300

Environment

Flight Conditions : VMC

Light : Night

Aircraft

Reference : X

ATC / Advisory.TRACON : ZZZ

Aircraft Operator : Air Carrier

Make Model Name : Regional Jet 200 ER/LR (CRJ200)

Crew Size.Number Of Crew : 2

Operating Under FAR Part : Part 121

Flight Plan : IFR

Mission : Passenger

Nav In Use.Localizer/Glideslope/ILS : Runway XY

Flight Phase : Initial Approach

Airspace.Class D : ZZZ

Person

Reference : 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 : Multiengine

Qualification.Flight Crew : Instrument

ASRS Report Number.Accession Number : 1580443

Human Factors : Confusion

Human Factors : Situational Awareness

Events

Anomaly.ATC Issue : All Types

Anomaly.Deviation - Procedural : Published Material / Policy

Anomaly.Deviation - Procedural : Clearance

Anomaly.Inflight Event / Encounter : Weather / Turbulence

Anomaly.Inflight Event / Encounter : CFTT / CFIT

Detector.Automation : Aircraft Terrain Warning

Detector.Person : Flight Crew

When Detected : In-flight

Result.Flight Crew : Took Evasive Action
Result.Flight Crew : Requested ATC Assistance / Clarification
Result.Flight Crew : FLC complied w / Automation / Advisory
Result.Flight Crew : Executed Go Around / Missed Approach
Result.Air Traffic Control : Provided Assistance

Assessments

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

Narrative: 1

ILS Approach, ZZZ Tower closed. Dark night with overcast. Active cell with heavy precipitation. Wind reported 350@12. Coming from the southwest, we requested and were given direct ZZZZZ, descend to 7000. The active cell over ZZZZZ had us divert left. After clearing the cell, we were instructed to turn right heading 070, then turn left 350 to intercept the localizer, descend and maintain 5300 until established, cleared for the approach. We verified the 5300 altitude with ATC. Level at 5300, course alive between ZZZZZ and ZZZZZ1, we got a terrain caution followed by a terrain pull up alert. Pilot [Flying] (First Officer) immediately disconnected the autopilot, climbed and Pilot Monitoring (Captain) advised ATC. We leveled-off at 6500 and re-engaged the auto-pilot in ALT and HDG modes. ATC vectored us to the west. After discussing the incident with ATC, they indicated the minimum vectoring altitude in the area is 5300. Captain checked sufficient fuel on board for a second attempt. Not sure if the terrain warning was erroneous after the minimum vectoring altitude discussion and reviewing the terrain information on the approach chart, we requested and got vectors back to final. We were instructed to descend and maintain 5300 once again. On a heading of 150 while being vectored and descending to 5300 we had another terrain pull up alert. Pilot Flying disconnected the autopilot and immediately initiated a climb to a safe altitude and Pilot Monitoring advised ATC. After re-engaging the auto-pilot in ALT and HDG modes at about 6300 ft. we had another discussion with ATC regarding minimum vectoring altitude. We were then vectored to intercept the localizer and capture the glide slope between ZZZZZ and ZZZZZ1 but closer to ZZZZZ this time (the cell over ZZZZZ was still active). We asked ATC to maintain our altitude until established. We intercepted the localizer and glide slope at 6300 ft. and performed a visual approach backed-up with the ILS to an uneventful landing. Landed with > 4000lbs of fuel on board (tankering). At no time was any aircraft limitation exceeded. This report is erroneously indicating it was a non-revenue flight when it was a revenue flight. After further review on a sectional chart, highest terrain in the area is at 3,457 ft., left of localizer between ZZZZZ and ZZZZZ1. A minimum vectoring altitude of 5300 ft. put us 1843 ft. above the terrain. Had the cell not be present over ZZZZZ, we would have intercepted the localizer further out and at a higher altitude and probably would not have received any terrain warnings. Minimum crossing altitude is 5500 at ZZZZZ and 5000 at ZZZZZ1. Add more detailed terrain information on the approach chart. The 3,457 ft. terrain depicted on the sectional is not depicted on the approach chart. Increase minimum vectoring altitude to match the [Terminal Arrival Altitude] for the area (5500 ft. MSL).

Synopsis

CRJ-200 Captain reported the flight crew received Caution Terrain and Terrain Pull Up warnings while on radar vectors from ATC for the same approach during two separate approach attempts.

Time / Day

Date : 201809

Local Time Of Day : 1801-2400

Place

Locale Reference.Airport : RAP.Airport

State Reference : SD

Altitude.MSL.Single Value : 5300

Environment

Flight Conditions : VMC

Light : Night

Aircraft

Reference : X

ATC / Advisory.TRACON : RCA

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

Nav In Use : FMS Or FMC

Nav In Use.Localizer/Glideslope/ILS : Runway 32

Flight Phase : Initial Approach

Route In Use : Vectors

Airspace.Class D : RAP

Person

Reference : 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 : Air Transport Pilot (ATP)

Qualification.Flight Crew : Multiengine

Qualification.Flight Crew : Instrument

ASRS Report Number.Accession Number : 1580436

Human Factors : Situational Awareness

Human Factors : Human-Machine Interface

Events

Anomaly.Inflight Event / Encounter : CFTT / CFIT

Anomaly.Inflight Event / Encounter : Weather / Turbulence

Detector.Automation : Aircraft Terrain Warning

When Detected : In-flight

Result.General : Flight Cancelled / Delayed

Result.Flight Crew : Executed Go Around / Missed Approach

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

Narrative: 1

During descent to RAP from southwest we were cleared direct HELTA (IAF ILS 32). Due to heavy precipitation in vicinity on HELTA we were vectored west from it to avoid the weather. After clearing the weather, we were given descend to 7,000 feet with heading of 080 to enter base leg. Once we got closer to final approach we were given heading 350 to intercept localizer, descend and maintain 5,300 feet until established and cleared for the approach.

On approximately 11 mile final when capturing LOC at 5,300 feet we received TERRAIN caution and then TERRAIN PULL UP alert. At that point I disconnected autopilot, applied GA thrust and started climb. After clearing the warning CA (Captain) notified ATC about the problem and leveling off at 6,500 feet we were given vector to the west. After engaging autopilot, CA evaluated our fuel situation (over 4,000 lbs fuel remaining) and asked for vectors for another approach. We were given heading approximate 150 and descend to 5,300 feet. During descent we had another EGPWS alert. I disengaged autopilot, applied GA thrust and started immediate climb. CA notified ATC and autopilot was engaged leveling off at safe altitude.

We asked for vectors to intercept localizer at higher altitude and closer to HELTA. After intercepting LOC at more than 6,000 feet we were able to intercept GS and continue approach to landing without further incidents.

Synopsis

Air carrier pilot reported receiving a ground proximity warning twice while being vectored for an ILS Approach.

Time / Day

Date : 201809

Local Time Of Day : 0001-0600

Place

Locale Reference.ATC Facility : ZLC.ARTCC

State Reference : UT

Altitude.MSL.Single Value : 11500

Aircraft

Reference : X

Make Model Name : Cessna Citation Sovereign (C680)

Flight Plan : IFR

Flight Phase : Initial Climb

Airspace.Class E : ZLC

Person

Reference : 1

Location Of Person.Facility : ZLC.ARTCC

Reporter Organization : Government

Function.Air Traffic Control : Enroute

Function.Air Traffic Control : Instructor

Qualification.Air Traffic Control : Fully Certified

Experience.Air Traffic Control.Time Certified In Pos 1 (yrs) : 10

ASRS Report Number.Accession Number : 1580241

Human Factors : Training / Qualification

Events

Anomaly.Deviation - Track / Heading : All Types

Anomaly.Deviation - Procedural : Clearance

Anomaly.Inflight Event / Encounter : CFTT / CFIT

Detector.Person : Air Traffic Control

Result.Air Traffic Control : Provided Assistance

Assessments

Contributing Factors / Situations : Airspace Structure

Contributing Factors / Situations : Human Factors

Contributing Factors / Situations : Procedure

Primary Problem : Human Factors

Narrative: 1

Was engaged in D-Side training on Sector 8. Aircraft X called on the ground from DIJ airport requesting an IFR clearance. At the time we had numerous JAC arrivals and an overflight at 170. We called Sector 16 to APREQ the departure headed to the east to BOY. Sector 16 approved the aircraft climbing to FL290. To alleviate any conflict with traffic and terrain, we issued the LAMON TWO Departure which takes the aircraft to the northwest to gain altitude prior to turning east. An altitude of 160 was issued and a void time given.

Aircraft X departed some minutes later and we immediately recognized that the aircraft was not flying the assigned departure and was headed into high terrain still climbing. The R-Side controller advised the pilot of a low altitude alert and asked [if] they were flying the LAMON Departure in which the pilot said yes. Clearly, they were not and continued east into even higher terrain. Another low altitude alert was issued and the controller asked if the pilot had the terrain in sight in which they responded yes. During the time of the 2 low altitude alerts, the aircraft was in an MIA of 134 and subsequently 158.

A departure procedure was issued to the pilot for both terrain and traffic. If a DP or SID is issued, the pilot needs to comply.

Synopsis

ZLC Controller reported a pilot not following the SID and entering low terrain twice.

Time / Day

Date : 201809

Local Time Of Day : 1201-1800

Place

Locale Reference.Airport : JAC.Airport

State Reference : WY

Aircraft

Reference : X

ATC / Advisory.Tower : JAC

Aircraft Operator : Air Carrier

Make Model Name : Commercial Fixed Wing

Crew Size.Number Of Crew : 2

Operating Under FAR Part : Part 121

Flight Plan : IFR

Nav In Use : GPS

Nav In Use : FMS Or FMC

Flight Phase : Initial Approach

Route In Use : Visual Approach

Airspace.Class D : JAC

Person

Reference : 1

Location Of Person.Aircraft : X

Location In Aircraft : Flight Deck

Reporter Organization : Air Carrier

Function.Flight Crew : Pilot Flying

ASRS Report Number.Accession Number : 1580085

Human Factors : Situational Awareness

Events

Anomaly.Inflight Event / Encounter : CFTT / CFIT

Detector.Person : Flight Crew

When Detected : In-flight

Result.Flight Crew : Became Reoriented

Assessments

Contributing Factors / Situations : Airspace Structure

Contributing Factors / Situations : Chart Or Publication

Contributing Factors / Situations : Human Factors

Primary Problem : Ambiguous

Narrative: 1

Proceeding visually east of Moose Center at JAC Rwy 19. Daylight visual conditions, received GPWS caution/warning from Blacktail Butte. Was starting turn to right at the time to intercept final. Alert went away once turn was commenced. I never felt uncomfortable with the terrain separation, and was surprised that it was triggered.

Synopsis

Air carrier pilot reported receiving a short GPWS aural alert during the turn to final approach course to Runway 19 at Jackson Hole Airport.

Time / Day

Date : 201809

Local Time Of Day : 0601-1200

Place

Locale Reference.Airport : LYH.Airport

State Reference : VA

Altitude.MSL.Single Value : 3000

Environment

Flight Conditions : IMC

Light : Daylight

Aircraft

Reference : X

ATC / Advisory.TRACON : ROA

Aircraft Operator : Air Carrier

Make Model Name : Medium Transport

Crew Size.Number Of Crew : 2

Flight Plan : IFR

Nav In Use.Localizer/Glideslope/ILS : Runway 04

Flight Phase : Initial Approach

Airspace.Class E : ROA

Person

Reference : 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

ASRS Report Number.Accession Number : 1580027

Human Factors : Situational Awareness

Events

Anomaly.Aircraft Equipment Problem : Less Severe

Anomaly.ATC Issue : All Types

Anomaly.Inflight Event / Encounter : CFTT / CFIT

Detector.Person : Flight Crew

When Detected : In-flight

Result.Flight Crew : Took Evasive Action

Result.Flight Crew : Requested ATC Assistance / Clarification

Result.Flight Crew : Executed Go Around / Missed Approach

Result.Air Traffic Control : Issued New Clearance

Result.Air Traffic Control : Provided Assistance

Assessments

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

Narrative: 1

We were assigned direct to KILBE at 3000 feet into LYH for the ILS 4. As we were nearing several miles from the localizer, we got the "Terrain, Terrain" aural three times, then followed by the "Pull Up" aural. We began a climb above 4000 ft and leveled once the warning had silenced. We told ATC about the event then he vectored us around for another approach to Runway 4, this time from the east side of the localizer. During this process, we did receive one more "Terrain, Terrain" aural, but no "Pull Up." We continued on the ILS approach for Runway 4 and landed uneventfully. I can't say for certain, but I believe the Terrain, Pull UP aural may have been erroneous due to the erratic RA indications. Perhaps ATC needs to leave us higher in that area. ATC had us at 3300 feet initially before giving us 3000 as we were coming to KILBE.

Synopsis

Pilot reported receiving GPWS Alerts and a Pull-up Warning during vectors to the ILS 4 to Lynchburg Regional Airport.

Time / Day

Date : 201809

Local Time Of Day : 1201-1800

Place

Locale Reference.Airport : ROA.Airport

State Reference : VA

Environment

Flight Conditions : VMC

Light : Daylight

Aircraft

Reference : X

ATC / Advisory.TRACON : ROA

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

Nav In Use.Localizer/Glideslope/ILS : Runway 34

Flight Phase : Initial Approach

Route In Use : Visual Approach

Airspace.Class C : ROA

Person

Reference : 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 : 1578727

Human Factors : Situational Awareness

Human Factors : Human-Machine Interface

Events

Anomaly.Aircraft Equipment Problem : Less Severe

Anomaly.Inflight Event / Encounter : CFTT / CFIT

Detector.Automation : Aircraft Terrain Warning

When Detected : In-flight

Result.Flight Crew : FLC Overrode Automation

Result.Flight Crew : Returned To Clearance

Assessments

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

Narrative: 1

On a visual approach to runway 34 at ROA we responded to a GPWS Terrain message. I was the PF (Pilot Flying) and had planned on joining the ILS at VINTON (FAF) to back up the visual approach. Approximately 4-5 miles abeam of the FAF with approach mode armed and autopilot engaged I got a LOC 1 capture and the aircraft started to make a left turn then it started going back right. As I was about to disconnect the automation we received the Terrain, Terrain, Pull Up message. I immediately increased thrust and started pitching up. The ground was clearly visible during the entire approach. Once clear, I assessed the situation and continued the approach by joining the localizer and glideslope near the FAF.

Threats could have been the terrain. I thought I had a reasonable plan to manage that from previous experience at this airport, planning on backing up the approach with the ILS course and managing the descent for the final turn. Undesired aircraft state occurred when I got a LOC capture at a point I would not have expected.

At no time did it appear that my descent planning was inappropriate. ATC had cleared us for the visual approach from 5200 ft and I was descending with the goal of turning final at the published altitude of 3800. ILS was tuned and I was monitoring the glide slope indications but not trying to fly the glide slope on the base leg.

Synopsis

Air carrier Captain reported a ground proximity Terrain warning while on visual approach.

Time / Day

Date : 201809

Local Time Of Day : 1201-1800

Place

Locale Reference.ATC Facility : ZDV.ARTCC

State Reference : CO

Altitude.MSL.Single Value : 8000

Aircraft

Reference : X

ATC / Advisory.Center : ZDV

Aircraft Operator : Personal

Make Model Name : Skyhawk 172/Cutlass 172

Crew Size.Number Of Crew : 1

Flight Plan : VFR

Flight Phase : Initial Climb

Route In Use : None

Person

Reference : 1

Location Of Person.Facility : ZDV.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) : 7

ASRS Report Number.Accession Number : 1578340

Human Factors : Situational Awareness

Events

Anomaly.Deviation - Procedural : FAR

Anomaly.Deviation - Procedural : Clearance

Anomaly.Inflight Event / Encounter : VFR In IMC

Anomaly.Inflight Event / Encounter : CFTT / CFIT

Detector.Person : Air Traffic Control

When Detected : In-flight

Assessments

Contributing Factors / Situations : Human Factors

Contributing Factors / Situations : Procedure

Contributing Factors / Situations : Weather

Primary Problem : Weather

Narrative: 1

Aircraft X departed CUT VFR. Called airborne asking for IFR to BIL. I issued squawk. Noticed aircraft filed alt FL080. MIA [is] FL093. I asked pilot if he would be able [to get to] FL100 as a final altitude due to MIA [Minimum IFR Altitude]. He responded negative and that he was IMC climbing through FL075. I instructed him to maintain VFR and reminded

him he did not have an IFR clearance. I alerted the FLM [Front Line Manager]. I was given a D side.

Aircraft X descended to FL073 and said he was trying to stay VFR. I asked if he could see the ground. He said yes and there was a cloud layer at FL076. I called RCA Approach, whose airspace he was in to see if they had a lower MVA [Minimum Vectoring Altitude] that would help. They did not. I asked pilot if he would be able to maintain terrain obstruction clearance and climb to FL093. He said negative. I asked intentions. He said he'd try to stay VFR until I could give him a clearance. I suggested he turn back to his departure airport. He said he thought he could stay VFR.

I told him the general direction and altitudes of the MIA's that we're going to stair step down to the west as he flew out of the Black Hills. I explained what those meant in relation to the ground or obstacles. He descended to FL071. I suggested a course due west that would get him to lower terrain quicker if he could maintain VFR on that heading. He said he would. He asked about mountains and I re-explained the area terrain. He asked about the MIA that was no factor and I responded. He crossed the boundary into my FL090 MIA and was at FL073 so I knew he was above terrain and obstacles in that area. I [tried to advise for the pilot] and issued him an IFR clearance with a climb to 9,000 [feet]. He complied.

The pilot called in and the FLM made sure he understood VFR flight rules.

Synopsis

ZDV Center Controller reported an aircraft departing VFR, needing IFR, and entering a lower Minimum IFR Altitude area.

Time / Day

Date : 201809

Local Time Of Day : 1201-1800

Place

Locale Reference.Airport : AVL.Airport

State Reference : NC

Altitude.MSL.Single Value : 5100

Environment

Flight Conditions : VMC

Aircraft

Reference : X

ATC / Advisory.TRACON : AVL

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 : Descent

Route In Use : Visual Approach

Airspace.Class C : AVL

Person

Reference : 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 : 1577589

Human Factors : Situational Awareness

Events

Anomaly.Deviation - Procedural : Published Material / Policy

Anomaly.Inflight Event / Encounter : CFTT / CFIT

Detector.Automation : Aircraft Terrain Warning

Detector.Person : Flight Crew

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 : Procedure
Primary Problem : Human Factors

Narrative: 1

We received a Terrain, Terrain Pull Up from the EGPWS while descending in VMC toward UMUXE which is on the ILS 35 into AVL. We had been cleared for the visual approach to 35 with the runway in sight. I had vacated the vectoring altitude of 5100 ft for 4000 ft at UMUXE. The terrain just southwest of UMUXE at 3131 ft triggered the EGPWS event. In hindsight, delaying the descent until closer to UMUXE would prevent to GPWS warning.

Synopsis

CRJ pilot reported responding to a EGPWS alert while on a visual approach.

Time / Day

Date : 201809

Local Time Of Day : 1801-2400

Place

Locale Reference.ATC Facility : ZDC.ARTCC

State Reference : VA

Altitude.AGL.Single Value : 2000

Aircraft

Reference : X

ATC / Advisory.Center : ZDC

Make Model Name : Medium Transport, High Wing, 2 Turboprop Eng

Flight Plan : IFR

Flight Phase : Cruise

Person

Reference : 1

Location Of Person.Facility : ZDC.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 : 1577415

Human Factors : Communication Breakdown

Human Factors : Situational Awareness

Human Factors : Troubleshooting

Human Factors : Distraction

Communication Breakdown.Party1 : ATC

Communication Breakdown.Party2 : ATC

Events

Anomaly.Airspace Violation : All Types

Anomaly.ATC Issue : All Types

Anomaly.Inflight Event / Encounter : CFTT / CFIT

Detector.Person : Air Traffic Control

Result.Air Traffic Control : Issued New Clearance

Assessments

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

Contributing Factors / Situations : Human Factors

Contributing Factors / Situations : Procedure

Primary Problem : ATC Equipment / Nav Facility / Buildings

Narrative: 1

Aircraft X was proving support for SAR south of ISO at 030 feet. We had called the inbound to the Tower, but Aircraft X decided to orbit south of the airport for another 30 minutes after the initial call. The pilot then advised they would like to proceed to the

airport and were cleared to do so. I decided to recall the inbound because of the amount of time that had passed since the initial call. At that time, we were unable to reach the Tower because of issues with the com lines. The regular lines were out of service. While we were attempting to call Kinston Tower, Aircraft X descended below the MIA, was issued the brasher notification and told to maintain the MIA. Aircraft X went back to the MIA and asked if they were cleared into the Tower's airspace. Being unsure, I told them to fly heading 160 to avoid, but it was not issued in time to maintain separation. Separation was reestablished and Aircraft X was cleared for a visual approach a few minutes later.

If a Tower is going to be open but the standard communication lines are not in service, there should be dedicated cell phones for the Tower [to] use so that the facility providing approach control services can have a standard number to reach them.

Synopsis

ZDC ARTCC Controller reported an airspace violation, a low altitude alert, and communication problem with a local Tower.

Time / Day

Date : 201809

Local Time Of Day : 1201-1800

Place

Locale Reference.ATC Facility : D01.TRACON

State Reference : CO

Altitude.MSL.Single Value : 13100

Aircraft : 1

Reference : X

ATC / Advisory.TRACON : D01

Make Model Name : Falcon 2000

Flight Plan : IFR

Flight Phase : Initial Climb

Airspace.Class D : APA

Aircraft : 2

Reference : Y

ATC / Advisory.TRACON : D01

Aircraft Operator : Air Taxi

Make Model Name : Cessna Citation Undifferentiated or Other Model

Crew Size.Number Of Crew : 2

Operating Under FAR Part : Part 135

Flight Phase : Initial Climb

Airspace.Class D : APA

Person

Reference : 1

Location Of Person.Facility : D01.TRACON

Reporter Organization : Government

Function.Air Traffic Control : Approach

Qualification.Air Traffic Control : Fully Certified

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

ASRS Report Number.Accession Number : 1577408

Human Factors : Situational Awareness

Human Factors : Distraction

Events

Anomaly.ATC Issue : All Types

Anomaly.Deviation - Altitude : Excursion From Assigned Altitude

Anomaly.Deviation - Track / Heading : All Types

Anomaly.Deviation - Procedural : Clearance

Anomaly.Deviation - Procedural : Published Material / Policy

Anomaly.Inflight Event / Encounter : CFTT / CFIT

Detector.Person : Air Traffic Control

When Detected : In-flight

Result.Flight Crew : Returned To Clearance

Result.Air Traffic Control : Provided Assistance

Assessments

Contributing Factors / Situations : Human Factors

Contributing Factors / Situations : Procedure

Primary Problem : Procedure

Narrative: 1

Aircraft X was a departure off of APA who I got on a 320 heading climbing to FL120. I then got another aircraft who departed APA also on a 320 climbing to FL120 (Aircraft Y). I climbed Aircraft Y to FL230 and was climbing through an arrival descending into DEN. I was watching his climb rate to ensure separation there, and sent Aircraft X direct to Baylor thinking I had already climbed him to FL230. As I was watching Aircraft Y climb, Aircraft X asked for higher. I saw he was level at FL120 and issued a climb to FL230 and a turn to 320 [heading] to avoid the 13,500 MVA.

He didn't do either of those things quickly, so I issued a turn to 330 [heading] and then further right to 350 [heading]. Aircraft X entered the 13,500 MVA approximately 3/4 of a mile climbing out of FL132 before exiting into lower MVA again. I didn't issue a safety alert because I didn't feel that he was in unsafe proximity to the terrain and was doing all the maneuvers he could do to climb as per the situation. I feel like a complete idiot letting this happen with just two aircraft on frequency.

Don't get complacent!

Synopsis

D01 TRACON reported an aircraft not following directions and entering a lower Minimum Vectoring Altitude (MVA) for a short while.

Time / Day

Date : 201809

Local Time Of Day : 1201-1800

Place

Locale Reference.Airport : ZZZ.Airport

State Reference : US

Altitude.AGL.Single Value : 1500

Environment

Flight Conditions : IMC

Weather Elements / Visibility : Rain

Weather Elements / Visibility : Fog

Weather Elements / Visibility.Visibility : 3

Light : Daylight

Ceiling.Single Value : 500

Aircraft

Reference : X

ATC / Advisory.Tower : ZZZ

Aircraft Operator : Personal

Make Model Name : LA-4 A/B Buccaneer

Crew Size.Number Of Crew : 1

Operating Under FAR Part : Part 91

Flight Plan : IFR

Mission : Personal

Flight Phase : Final Approach

Airspace.Class D : ZZZ

Person

Reference : 1

Location Of Person.Aircraft : X

Location In Aircraft : Flight Deck

Reporter Organization : Personal

Function.Flight Crew : Single Pilot

Qualification.Flight Crew : Instrument

Qualification.Flight Crew : Private

Experience.Flight Crew.Total : 3500

Experience.Flight Crew.Last 90 Days : 50

Experience.Flight Crew.Type : 200

ASRS Report Number.Accession Number : 1576795

Human Factors : Human-Machine Interface

Human Factors : Situational Awareness

Human Factors : Distraction

Events

Anomaly.Conflict : Ground Conflict, Less Severe

Anomaly.Deviation - Procedural : Clearance

Anomaly.Inflight Event / Encounter : CFTT / CFIT

Detector.Automation : Aircraft Terrain Warning
When Detected : In-flight
Result.Flight Crew : Took Evasive Action

Assessments

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

Narrative: 1

I was flying in IMC conditions for over an hour in the plane and had about 4 hrs more given the stronger than expected headwinds. I decided to land at ZZZ to refuel as it was reporting marginal VFR at the time. All around and further down my flight path things were IFR. When I informed ATC of my decision to land at ZZZ, they reported IFR conditions and I set up for the ILS.

I have flown this plane in IFR conditions before but have not flown the ILS in it. I have about 17 years experience with flying IFR in other planes and am comfortable and current with flying ILS approaches, but not in this plane. During the approach, the Tower Controller got a low altitude alert which I was able to correct. The reason was my unfamiliarity with the ILS characteristics of this plane.

Synopsis

LA-4 A/B Buccaneer single pilot executing an instrument approach reported that Tower received a low altitude alert warning.

Time / Day

Date : 201809

Local Time Of Day : 0001-0600

Place

Locale Reference.ATC Facility : ZTL.ARTCC

State Reference : GA

Altitude.MSL.Single Value : 4500

Environment

Weather Elements / Visibility : Windshear

Aircraft : 1

Reference : X

ATC / Advisory.Center : ZTL

Aircraft Operator : Air Carrier

Make Model Name : EMB ERJ 145 ER/LR

Crew Size.Number Of Crew : 2

Operating Under FAR Part : Part 121

Flight Plan : IFR

Mission : Passenger

Flight Phase : Initial Approach

Aircraft : 2

Reference : Y

ATC / Advisory.Center : ZTL

Aircraft Operator : Air Carrier

Make Model Name : EMB ERJ 145 ER/LR

Crew Size.Number Of Crew : 2

Operating Under FAR Part : Part 121

Flight Plan : IFR

Mission : Passenger

Flight Phase : Final Approach

Person

Reference : 1

Location Of Person.Facility : ZTL.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) : 20

ASRS Report Number.Accession Number : 1576573

Human Factors : Troubleshooting

Human Factors : Distraction

Human Factors : Situational Awareness

Events

Anomaly.ATC Issue : All Types
Anomaly.Deviation - Track / Heading : All Types
Anomaly.Deviation - 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 : Executed Go Around / Missed Approach
Result.Air Traffic Control : Provided Assistance

Assessments

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

Narrative: 1

Aircraft X was inbound to SVH trying to beat the weather to the field requesting a visual approach. Aircraft X reported the field in sight and was issued a visual approach. Aircraft X then informed me that he was circling the field to land on RWY 28. I then issued a clearance to Aircraft Y to fly heading 090 vector to the other side of airport for visual to avoid weather and help with traffic flow.

Aircraft X then gave a pilot report and I ask him if he wanted to cancel. Aircraft X at 018 MSL responded not yet. I then descended Aircraft Y to 036 MSL. Aircraft X then reported he had to go around due to wind shear. I then attempted to climb Aircraft Y to 070 to allow for the unexpected situation of Aircraft X. Aircraft X was headed towards heavy precipitation requested vectors.

I assigned him a heading of 300 and a climb to 036. The turns were issued below the MIA [Minimum IFR Altitude]. I issued the turn due the unsafe situation caused by the proximity of the weather. [The] weather posed a greater danger to the aircraft than the terrain did to the jet aircraft that was climbing.

Encourage aircraft that are inbound [to] airports with weather to consider alternate or take a delay.

Synopsis

Atlanta Center Controller reported an unsafe situation relating to traffic, weather, and Minimum IFR Altitude.

Time / Day

Date : 201809
Local Time Of Day : 0001-0600

Place

Locale Reference.ATC Facility : ZZZ.TRACON
State Reference : US
Altitude.MSL.Single Value : 2300

Environment

Flight Conditions : IMC
Light : Daylight

Aircraft

Reference : X
ATC / Advisory.TRACON : ZZZ
Aircraft Operator : Air Carrier
Make Model Name : Regional Jet 700 ER/LR (CRJ700)
Operating Under FAR Part : Part 121
Mission : Passenger
Nav In Use : FMS Or FMC
Flight Phase : Descent
Airspace.Class B : ZZZ

Component

Aircraft Component : GPWS
Aircraft Reference : X
Problem : Malfunctioning

Person

Reference : 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 : Multiengine
Qualification.Flight Crew : Instrument
ASRS Report Number.Accession Number : 1576365
Human Factors : Situational Awareness
Human Factors : Confusion

Events

Anomaly.Aircraft Equipment Problem : Less Severe
Anomaly.Inflight Event / Encounter : CFTT / CFIT
Detector.Automation : Aircraft Terrain Warning
Detector.Person : Flight Crew

When Detected : In-flight

Result.Flight Crew : Requested ATC Assistance / Clarification

Result.Flight Crew : Took Evasive Action

Result.Flight Crew : Overcame Equipment Problem

Result.Flight Crew : FLC complied w / Automation / Advisory

Result.Air Traffic Control : Provided Assistance

Result.Air Traffic Control : Issued New Clearance

Assessments

Contributing Factors / Situations : Environment - Non Weather Related

Contributing Factors / Situations : Aircraft

Primary Problem : Aircraft

Narrative: 1

Descending for the RNAV approach on a 90 degree base 5 miles from the final approach fix descending to 2300 feet. Around 2500 feet the terrain warning sounds while in IMC conditions so we execute a terrain escape maneuver and climb out to 4000 feet. I informed ATC what we were doing and he informed us there was no terrain in that area. He then vectored us back around to the approach course and we landed. The terrain message sounded again at 2300 feet coming back around again but we knew this one was erroneous by talking to ATC and we were level about to intercept final approach course. The GPWS was then deferred once we got on the ground.

Comply with the warning first and fly the airplane. There is plenty of time to figure out if it is an incorrect warning once clear of the occurrence.

Synopsis

CRJ Captain reported that a false terrain warning sounded during descent.

Time / Day

Date : 201809
Local Time Of Day : 0001-0600

Place

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

Environment

Flight Conditions : VMC
Weather Elements / Visibility.Visibility : 10
Light : Night
Ceiling.Single Value : 15000

Aircraft

Reference : X
ATC / Advisory.UNICOM : ZZZ
Aircraft Operator : Personal
Make Model Name : RV-7
Crew Size.Number Of Crew : 1
Operating Under FAR Part : Part 91
Mission : Personal
Flight Phase : Landing
Route In Use : Visual Approach
Route In Use : Direct
Airspace.Class E : ZZZ

Person

Reference : 1
Location Of Person.Aircraft : X
Location In Aircraft : Flight Deck
Reporter Organization : Personal
Function.Flight Crew : Single Pilot
Qualification.Flight Crew : Instrument
Qualification.Flight Crew : Air Transport Pilot (ATP)
Qualification.Flight Crew : Multiengine
Experience.Flight Crew.Total : 11520
Experience.Flight Crew.Last 90 Days : 65
Experience.Flight Crew.Type : 457
ASRS Report Number.Accession Number : 1576173
Human Factors : Situational Awareness
Human Factors : Confusion

Events

Anomaly.Deviation - Procedural : Published Material / Policy
Anomaly.Inflight Event / Encounter : Object
Anomaly.Inflight Event / Encounter : CFTT / CFIT
Detector.Person : Flight Crew

When Detected : In-flight
Result.Flight Crew : Became Reoriented

Assessments

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

Narrative: 1

I took off [early morning] to fly airplane to ZZZ for its condition inspection. Cruise altitude [was] 8,500 feet. I began my descent 30 miles from ZZZ. At 20 miles out on UNICOM frequency, I began to attempt to activate the pilot controlled lights using my microphone button. The lights did not come on. I continued to try to turn on the runway lights with no success. The airfield lights never came on. In attempting to acquire the airfield visually, I kept my descent rate at 500 fpm. At approximately 1/2 mile from the field and approximately 150 feet AGL, I struck a power line. My propeller sliced through the line. I initiated a go-around and climbed to 1,000 feet AGL. I did a control check to determine that I still had a flyable airplane. At this time, I visually acquired the airport and made a landing on Runway 32. After landing the airplane, I taxied to Transient Parking and exited the airplane. I then contacted the police and fire department to notify them of a possible downed power line. The lights not coming on made the airport extremely difficult to find. There was no NOTAM indicating the lights were inoperative. This was certainly a contributing factor to the incident, but I never should have descended so low without the airport in sight. I had been into ZZZ airport many times, and was overly sure of my situational awareness.

Synopsis

GA pilot reported aircraft contacted a power line during descent into airport at night.

Time / Day

Date : 201809
Local Time Of Day : 1201-1800

Place

Locale Reference.ATC Facility : ZZZ.Tower
State Reference : US
Altitude.AGL.Single Value : 2600

Aircraft

Reference : X
ATC / Advisory.Tower : ZZZ
Make Model Name : P180 Avanti
Crew Size.Number Of Crew : 1
Flight Plan : IFR
Flight Phase : Initial Climb
Airspace.Class D : ZZZ

Person : 1

Reference : 1
Location Of Person.Facility : ZZZ.Tower
Reporter Organization : Government
Function.Air Traffic Control : Local
Qualification.Air Traffic Control : Fully Certified
ASRS Report Number.Accession Number : 1575652
Human Factors : Communication Breakdown
Human Factors : Situational Awareness
Communication Breakdown.Party1 : ATC
Communication Breakdown.Party2 : Flight Crew

Person : 2

Reference : 2
Location Of Person.Facility : ZZZ.Tower
Reporter Organization : Government
Qualification.Air Traffic Control : Fully Certified
ASRS Report Number.Accession Number : 1576658
Human Factors : Communication Breakdown
Human Factors : Training / Qualification
Communication Breakdown.Party1 : ATC
Communication Breakdown.Party2 : Flight Crew

Events

Anomaly.Aircraft Equipment Problem : Less Severe
Anomaly.Deviation - Procedural : Published Material / Policy
Anomaly.Deviation - 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.Air Traffic Control : Issued Advisory / Alert

Assessments

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

Narrative: 1

I was working Local Control West (LCW), and Aircraft X called ready to go off Runway 1L. I cleared Aircraft X for takeoff at XA36, heading 300, which he read back. Approximately 2 miles north of the airport at XA38, Aircraft X tagged up on the radar, I told him to contact Departure and asked him to pass on flight conditions if able. He read back that he would like to return to Runway 1L. I issued him left closed traffic, cleared him to land on Runway 1L, and asked if he needed assistance, he said he did not and did not state the reason for return. At this time the Ground controller was coordinating with Approach, letting them know that Aircraft X was coming back to land. It appeared that Aircraft X had started a wide left turn into the downwind. About 4 miles northwest of the airport, at XA39, Aircraft X contacted me saying he had changed his mind and was requesting a frequency change. I was unsure of his intentions, since I was expecting him to join the downwind, and verified if he wanted to come back to land, to which he said no. At that point he was nearing the boundary of the Class D airspace, I switched him to departure for the second time, and he read it back. At this time the Ground controller coordinated with approach that Aircraft X was no longer returning to [the airport], and that he's coming to them on a 300 heading. Approach acknowledged. Approximately 12 seconds later, at XA40, about 5 miles northwest of [the airport], a Low Altitude alert went off for Aircraft X. Not sure if Aircraft X was still on my frequency, I issued the Low Altitude alert to him just in case. He was still on my frequency at that time, and read back that he will check his altitude. A short while later, Aircraft X flew in close proximity to obstructions northwest of [the airport], The obstructions are 2300 MSL and Aircraft X was at 2600 MSL. Coordination with approach for a different heading when it is first noticed that the heading will take an aircraft directly toward the obstruction. If unable to coordinate a different heading, instruct the aircraft to climb without delay and keep him on my frequency, advise approach.

Narrative: 2

Aircraft X, departed Runway 1L at XA36. Two miles north of [the airport], Aircraft X requested to return to Runway 1L. While the local controller was giving instructions for left traffic, I reminded them to ask if Aircraft X needed assistance. I coordinated with Approach that Aircraft X would be returning to [the airport]. Aircraft X did not require assistance. Aircraft X made a shallow left turn. While exiting the Class D airspace, Aircraft X decided to continue on their flight plan on a heading of 300. The local controller left Aircraft X on a 300 heading and switched the aircraft to Approach. (300 was assigned to Aircraft X initially as per our Letter of Agreement (LOA) with Approach). I coordinated with Approach.

Seconds later the local controller was issuing a low altitude alert to Aircraft X. Aircraft X was still on [the airport] tower frequency. Aircraft X did not climb as expected. I don't know when Aircraft X finally contacted Approach, but they were definitely not at the altitude necessary for obstructions to the Northwest of [the airport]. Aircraft X's altitude indicated 026. There are towers at 023. I don't like that Aircraft X didn't want to tell us why they needed to return. I don't like that the pilot did not turn back into the downwind when instructed. I wound up in charge with an aircraft that didn't really need anything but was requesting to return to the airport while continuing out of my airspace. Once the pilot

decided he wanted to continue, there were very few options left. The local controller was a recent check out. I discussed ways we could have provided better service in the moment. Such as holding onto the aircraft and coordinating a different heading. Or telling Aircraft X to expedite climb. (Although in reality the aircraft did not climb as expected).

Synopsis

Two Tower Controllers reported a P180 failed to change frequencies, which resulted in maintaining an altitude which triggered a low altitude alert.

Time / Day

Date : 201809

Local Time Of Day : 1801-2400

Place

Locale Reference.Airport : BOI.Airport

State Reference : ID

Altitude.MSL.Single Value : 6500

Environment

Flight Conditions : Marginal

Weather Elements / Visibility : Haze / Smoke

Work Environment Factor : Glare

Light : Daylight

Aircraft

Reference : X

ATC / Advisory.TRACON : BOI

Aircraft Operator : Air Carrier

Make Model Name : B737-800

Crew Size.Number Of Crew : 2

Operating Under FAR Part : Part 121

Flight Plan : IFR

Mission : Passenger

Nav In Use : FMS Or FMC

Nav In Use.Localizer/Glideslope/ILS : Runway 32

Flight Phase : Initial Approach

Route In Use : Vectors

Route In Use : Visual Approach

Airspace.Class C : BOI

Person : 1

Reference : 1

Location Of Person.Aircraft : X

Location In Aircraft : Flight Deck

Reporter Organization : Air Carrier

Function.Flight Crew : Pilot Flying

Qualification.Flight Crew : Multiengine

Qualification.Flight Crew : Air Transport Pilot (ATP)

Qualification.Flight Crew : Instrument

ASRS Report Number.Accession Number : 1575482

Human Factors : Situational Awareness

Human Factors : Time Pressure

Human Factors : Workload

Human Factors : Distraction

Person : 2

Reference : 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)
ASRS Report Number.Accession Number : 1575780
Human Factors : Time Pressure
Human Factors : Situational Awareness
Human Factors : Distraction
Human Factors : Workload

Events

Anomaly.ATC Issue : All Types
Anomaly.Deviation - Altitude : Excursion From Assigned Altitude
Anomaly.Deviation - Track / Heading : All Types
Anomaly.Inflight Event / Encounter : Unstabilized Approach
Anomaly.Inflight Event / Encounter : CFTT / CFIT
Detector.Person : Flight Crew
Detector.Person : Air Traffic Control
When Detected : In-flight
Result.General : Flight Cancelled / Delayed
Result.Flight Crew : Requested ATC Assistance / Clarification
Result.Flight Crew : Executed Go Around / Missed Approach
Result.Air Traffic Control : Issued New Clearance

Assessments

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

Narrative: 1

After initial turn on for an approach to 28R Boise, ATC informed us that they had another aircraft turning on final and asked if we could see them, we replied no that we couldn't. The sun was sitting in the 10 to 11 o'clock position which made this difficult. Additionally there was a lot of haze from what we found out later was a controlled burn being done between us and the airport. We were at 6500 ft. and requested lower as the glide path was approaching. ATC would not give us lower as they were conducting Visual approaches. We requested the ILS approach and they would not clear us. We continued to try and spot the aircraft and the runway. We spotted the Runway and again pressed for a clearance. ATC finally asked if we could accept an approach to 28L and we replied that we could. At this point it was already questionable if we could get down and back on path by 1000 ft. I had the FO (First Officer) set in final flaps and initiated a descent. The FO stated that he wasn't sure that we had clearance and I leveled. We started cleaning up to discontinue the approach and ATC called realizing that we now were too close to conduct a normal approach and told us to come to heading 190 and to climb to 6500 ft. We had leveled at 6000 ft. We proceeded around the pattern and landed with no further issues.

We decided to call the controller on the ground to get some clarity on what had happened

on the approach. After talking to ATC they told me the controller should not have turned us to 190 until we were at 6500 ft., as that was minimum vectoring altitude. This caused an alert. We told them that we would file to cover the event.

ATC seemed to be preoccupied with the Aircraft turning in front of us. When we requested the ILS approach so that we could continue our approach, we got the response that they were conducting visuals and that wasn't an option. ATC wouldn't accept responsibility for the separation and conditions at the Airport and conditions were not in our favor for seeing the airplane or the runway at an extended distance. ATC seem unsure of what to do and we were going higher above the glide patch and were running out of time. At the last second they offered a side slip to runway 28L and we accepted, but at that point it was improbable that we would get down to a stable approach by 1000 ft. The time compression was very quick and events were happening fast. ATC decided to break us off of the approach and in doing so, it caused an altitude deviation for minimum vectoring altitude.

We probably allowed the events to go on for too long without abandoning the attempt to get in. ATC was guilty of same problem. Events sometimes don't work out as anticipated and I am sure that Approach Control has reviewed how he handled the situation. The pilot monitoring (FO) did his job when he pointed out that in the confusion that he had not heard what I thought was a clearance. We discontinued the approach. ATC still in the accelerated time mode that had occurred tried to get us back around for another approach quickly and cleared us for a turn before he had established us at minimum vectoring altitude.

Narrative: 2

[Report narrative contained no additional information.]

Synopsis

A B737 flight crew reported descending for an approach prior to receiving clearance and then being vectored below the Minimum Vectoring Altitude by ATC.

Time / Day

Date : 201809

Local Time Of Day : 0601-1200

Place

Locale Reference.ATC Facility : ZZZ.ARTCC

State Reference : US

Environment

Flight Conditions : VMC

Light : Daylight

Aircraft

Reference : X

ATC / Advisory.Center : ZZZ

Aircraft Operator : Air Carrier

Make Model Name : EMB ERJ 145 ER/LR

Crew Size.Number Of Crew : 2

Operating Under FAR Part : Part 121

Flight Plan : IFR

Mission : Passenger

Flight Phase : Initial Approach

Route In Use : Visual Approach

Airspace.Class D : ZZZ

Person

Reference : 1

Location Of Person.Aircraft : X

Location In Aircraft : Flight Deck

Reporter Organization : Air Carrier

Function.Flight Crew : First Officer

Function.Flight Crew : Pilot Not Flying

Qualification.Flight Crew : Instrument

Qualification.Flight Crew : Air Transport Pilot (ATP)

Qualification.Flight Crew : Multiengine

Experience.Flight Crew.Last 90 Days : 254

Experience.Flight Crew.Type : 380

ASRS Report Number.Accession Number : 1575164

Human Factors : Human-Machine Interface

Human Factors : Situational Awareness

Events

Anomaly.Inflight Event / Encounter : CFTT / CFIT

Detector.Person : Flight Crew

When Detected : In-flight

Result.Flight Crew : Took Evasive Action

Assessments

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

Narrative: 1

[We were] descending for the approach into ZZZ in VMC [when] we got a GPWS (Ground Proximity Warning System) warning to climb for terrain. We got a GPWS warning from the plane. There was a ridge in between us and the airport and we decided to descend to final approach fix altitude slowly so we wouldn't trigger the warning to go off. The Captain disconnected the auto pilot and started a climb, once we were on the other side of the ridge and deemed that a normal approach can be continued, we started a descent and landed as planned. We should have stayed at the MSA (Minimum Safe Altitude) and started the descent on the other side of the ridge since we were coming from that direction.

Synopsis

ERJ First Officer reported receiving a Ground Proximity Warning while conducting a visual approach with the terrain in sight.

Time / Day

Date : 201809

Local Time Of Day : 0001-0600

Place

Locale Reference.ATC Facility : FAI.TRACON

State Reference : AK

Altitude.MSL.Single Value : 6000

Aircraft

Reference : X

ATC / Advisory.TRACON : FAI

Aircraft Operator : Military

Make Model Name : Fighting Falcon F16

Crew Size.Number Of Crew : 1

Operating Under FAR Part : Part 91

Flight Plan : IFR

Flight Phase : Descent

Airspace.Class E : FAI

Person

Reference : 1

Location Of Person.Facility : FAI.TRACON

Reporter Organization : Government

Function.Air Traffic Control : Approach

Qualification.Air Traffic Control : Fully Certified

ASRS Report Number.Accession Number : 1575051

Human Factors : Distraction

Human Factors : Situational Awareness

Human Factors : Workload

Events

Anomaly.ATC Issue : All Types

Anomaly.Deviation - Altitude : Excursion From Assigned Altitude

Anomaly.Deviation - Procedural : Clearance

Anomaly.Inflight Event / Encounter : CFTT / CFIT

Detector.Person : Flight Crew

When Detected : In-flight

Result.Flight Crew : Returned To Clearance

Result.Air Traffic Control : Issued New Clearance

Assessments

Contributing Factors / Situations : Human Factors

Contributing Factors / Situations : Procedure

Primary Problem : Procedure

Narrative: 1

During my post brief, after being relieved off of position by the East Controller and combining sectors, I was instructed to take a break and return when the fighters were RTB (Returning to Base). I advised the Facility CIC [FCIC] that the fighters were due inbound shortly and it should stay combined. After 5 minutes had elapsed from me being off of position, the fighters started to call up. It was a mixture of VFR and IFR pickups. One of them being Aircraft X. I quickly plugged into EAST and started to do the entries to decombine the sectors.

At this time I am monitoring, inputting the commands, selecting frequencies, and loading my position preferences. I hear the controller tell Aircraft X to proceed direct PAGGI, depart PAGGI direct BOGIE and expect vectors prior to BOGIE for the ILS RWY 32 approach into EIL, maintain VFR expect clearance once outside of the MOA's.

I got the brief, and took position.

I tried to input data block information but it was giving me audible error noises. I tried combining the airspace again with the commands outlined and I was still unable to get the data tags for the aircraft, or input any new data tag entries. I had to do manual coordination with EIL TWR for an inbound aircraft, while others were calling as well.

I scan back to Aircraft X, who was at 070 in a 073 MVA (Minimum Vectoring Altitude) and decided to wait a few more miles until he was established in the 059 MVA which was only a few miles away. Once established, I cleared him and told him to maintain 060, the pilot read back the 060 clearance. I went back to trying to fix the issue of not being able to input anything, and was getting help from my FCIC / WEST controller. I was also fielding calls from EIL TWR, ZAN, and the other fighter aircraft.

That's when Aircraft X came over the frequency and advised that he had gone below the 060 altitude. I observed his altitude readout at 051, and he advised he was climbing back up to 060. He was just inside the 059 MVA when he called up and advised me of that, then flew into a lower MVA of 040. That's when I issued to maintain 040, as I saw his readout go to 055.

I did not brasher the pilot due to controller workload.

Synopsis

Fairbanks Controller reported having a flight of aircraft below the Minimum Vectoring Altitude and waiting until it went into an area of higher terrain. Reporter also stated the flight additionally descended below another MVA and reported doing so.

Time / Day

Date : 201809
Local Time Of Day : 1201-1800

Place

Locale Reference.ATC Facility : NCT.TRACON
State Reference : CA

Aircraft : 1

Reference : X
ATC / Advisory.TRACON : NCT
Make Model Name : EMB ERJ 145 ER/LR
Flight Plan : IFR
Nav In Use.Localizer/Glideslope/ILS : Runway 12R
Flight Phase : Final Approach
Route In Use.Other
Airspace.Class C : SJC

Aircraft : 2

Reference : Y
ATC / Advisory.TRACON : NCT
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
Route In Use : Vectors
Airspace.Class B : NCT

Aircraft : 3

Reference : Z
ATC / Advisory.TRACON : NCT
Aircraft Operator : Air Carrier
Make Model Name : EMB ERJ 170/175 ER/LR
Crew Size.Number Of Crew : 2
Flight Plan : IFR
Mission : Passenger
Flight Phase : Initial Climb
Airspace.Class C : NCT

Person

Reference : 1
Location Of Person.Facility : NCT.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 : 1575043
Human Factors : Situational Awareness

Events

Anomaly.ATC Issue : All Types
Anomaly.Inflight Event / Encounter : CFTT / CFIT
When Detected : In-flight
Result.Air Traffic Control : Issued New Clearance

Assessments

Contributing Factors / Situations : Procedure
Primary Problem : Procedure

Narrative: 1

Aircraft X [was] cleared for the ILS Runway 12R SJC. Aircraft Y was on an instrument approach RNP-Z Runway 12R to SJC. Aircraft Z was on a go around from ILS Runway 12R. I cleared Aircraft X left turn to ARTAQ (IAF) and cleared them for the ILS Runway 12R. When I noticed their turn to ARTAQ I switched Aircraft X frequency to SJC tower. I was slowing Aircraft Y down to follow Aircraft X. I eventually slowed Aircraft Y to slowest practical speed when I noticed Aircraft X going through the ILS final for Runway 12L towards Aircraft Y on the RNP -Z. I had separation because Aircraft Y was only descending to 3,000. I was watching to see if Aircraft X would correct. Aircraft X started to parallel the final so I thought they had it. Then I noticed things get worse with Aircraft X. I cancelled Aircraft Y approach and issued an altitude and vector for a straight in approach to stay away from Aircraft X. I coordinated with SJC tower for instruction for Aircraft X.

During this time Aircraft Z went around Runway 12L who was also on the ILS. I was vectoring Aircraft Z back to the left downwind. During that time Aircraft Y went into a 4,000 foot MVA at 3,000. When I noticed I turned Aircraft Z to a lower MVA. When I realized the turn was too late I climbed Aircraft Y to 4,000.

[I asked] Aircraft Z reason for go around they said it was an FMS problem. I vectoring Aircraft Z back for the ILS. When Aircraft X was on final they said they were not picking up the ILS. I asked if they could switch to the RNP Runway 12L. They tried and it was too late so I cancelled their approach and re-sequenced them for the RNP Runway 12L approach.

Aircraft X said their reason was that the ILS was not working.

I do not know the situation with the ILS.

Next time in low ceiling situation I will wait for my first aircraft to be established straight in on the ILS before transferring communications. I could have easily made Aircraft X go around a cleaner operation.

Synopsis

NorCal TRACON Controller reported vectoring an aircraft below the Minimum Vectoring Altitude.

Time / Day

Date : 201809

Local Time Of Day : 1801-2400

Place

Locale Reference.ATC Facility : FAI.Tower

State Reference : AK

Altitude.AGL.Single Value : 1000

Aircraft : 1

Reference : X

ATC / Advisory.Tower : FAI

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

Crew Size.Number Of Crew : 1

Flight Plan : IFR

Nav In Use : GPS

Flight Phase : Final Approach

Airspace.Class D : FAI

Aircraft : 2

Reference : Y

ATC / Advisory.Tower : FAI

Make Model Name : Any Unknown or Unlisted Aircraft Manufacturer

Flight Phase : Landing

Person

Reference : 1

Location Of Person.Facility : FAI.Tower

Reporter Organization : Government

Function.Air Traffic Control : Supervisor / CIC

Qualification.Air Traffic Control : Fully Certified

ASRS Report Number.Accession Number : 1575035

Events

Anomaly.ATC Issue : All Types

Anomaly.Deviation - Procedural : Published Material / Policy

Anomaly.Inflight Event / Encounter : CFTT / CFIT

Detector.Person : Flight Crew

When Detected : In-flight

Result.Flight Crew : Executed Go Around / Missed Approach

Result.Air Traffic Control : Issued New Clearance

Assessments

Contributing Factors / Situations : Human Factors

Contributing Factors / Situations : Procedure

Primary Problem : Procedure

Narrative: 1

I was working TCIC [Tower Controller in Charge]. Aircraft X was on a GPS/RNAV Runway 20L approach. On short final, the Local Controller (LC) had to send Aircraft X around for a previous arrival that was still on the runway executing a touch-and-go. Aircraft X was instructed to go around and offset to the left. Aircraft X was subsequently instructed to turn left crosswind for left traffic to Runway 20L at approximately 010 MSL. The pilot complied and was cleared to land on Runway 20L. Shortly later I realized Aircraft X had been IFR on an IFR approach and did not request to cancel IFR or remain in the pattern for a Visual Approach. He was not given the option for an IFR missed approach and therefore issued a turn below the MVA of 029 MSL.

We handle many aircraft that fly both VFR and IFR depending on the day. The LC and I should have been more vigilant when issuing him go-around instructions.

Synopsis

Tower Controller In Charge reported not realizing an aircraft was on a IFR clearance and observed the Local Controller use improper procedures resulting in the aircraft being below the Minimum Vectoring Altitude.

Time / Day

Date : 201809

Local Time Of Day : 0601-1200

Place

Locale Reference.Airport : TKC.Airport

State Reference : MN

Altitude.MSL.Single Value : 1630

Environment

Flight Conditions : IMC

Weather Elements / Visibility.Visibility : 10

Light : Daylight

Ceiling.Single Value : 400

Aircraft

Reference : X

ATC / Advisory.CTAF : TKC

Aircraft Operator : Corporate

Make Model Name : SR22

Crew Size.Number Of Crew : 1

Operating Under FAR Part : Part 91

Flight Plan : IFR

Mission : Passenger

Flight Phase : Final Approach

Route In Use : Direct

Airspace.Class E : TKC

Person

Reference : 1

Location Of Person.Aircraft : X

Location In Aircraft : Flight Deck

Reporter Organization : Corporate

Function.Flight Crew : Pilot Flying

Function.Flight Crew : Single Pilot

Qualification.Flight Crew : Air Transport Pilot (ATP)

Qualification.Flight Crew : Flight Instructor

Qualification.Flight Crew : Multiengine

Experience.Flight Crew.Total : 3500

Experience.Flight Crew.Last 90 Days : 150

Experience.Flight Crew.Type : 300

ASRS Report Number.Accession Number : 1574996

Human Factors : Situational Awareness

Human Factors : Other / Unknown

Events

Anomaly.Deviation - Procedural : Published Material / Policy

Anomaly.Deviation - Procedural : FAR

Anomaly.Inflight Event / Encounter : Weather / Turbulence

Anomaly.Inflight Event / Encounter : CFTT / CFIT
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

Enroute to TKC, the weather was being reported as clear at the destination; therefore, I was expecting a visual approach. I had no thought in my mind that we wouldn't make it in to Tracy. As we approached, I listened again, and the clouds had moved in (400 ft BKN). The LNAV MDA for RNAV 29 is 444 ft AGL with a VDP at 1.3nm. Our aircraft is LPV capable, but there are no LPV mins for this approach. I elected to attempt the approach in hopes that we would break out of the broken layer. Our aircraft does provide us with vertical guidance for LNAV approaches, and the Garmin Perspective+ is equipped with synthetic vision. I followed the vertical navigation down to the MDA and leveled off. I continued at the MDA and flew past the VDP. I saw the runway about .1 or .2 out. I was not in a position to land and would have landed long on a 3,000 ft runway, so I elected to go missed.

Throughout the missed, and proceeding to the IAF for another attempt, I noticed a large hole in the clouds that would have legally allowed me to descend into Class G airspace where I could have legally proceeded to my destination. However, I was not comfortable with what towers or terrain might be out there, offset from the runway center line. I have, however, flown many straight in approaches to Runway 29 at Tracy, and there are no obstacles on the approach path. Therefore, I elected another approach. As on the first attempt, I followed the vertical navigation down final approach. When I reached the MDA, I did not see the runway. At that time, I elected to continue down a little further. At approx. 150 ft below my MDA or 290 ft AGL, I saw the runway at 12 o'clock, on glide path, exactly like any other precision approach. I landed safely from that approach.

Historically, I have NEVER considered flying below minimums. However, some get-there-itis, combined with powerful avionics that provide vertical guidance and synthetic vision that display the runway directly in front of you, made it very tempting to turn a non-precision approach into a precision approach. Right, wrong, or otherwise, I think this is an excellent lesson for anyone flying TAA aircraft these days. They certainly have the ability to give the feeling of invulnerability in several areas (including instrument approaches, fuel planning, and thunderstorm avoidance with XM weather), which is a classic human factors pitfall, and a powerful one at that.

Synopsis

SR22 pilot reported descending below minimums on an instrument approach.

Time / Day

Date : 201809

Local Time Of Day : 1201-1800

Place

Locale Reference.ATC Facility : NCT.TRACON

State Reference : CA

Altitude.MSL.Single Value : 2200

Aircraft : 1

Reference : X

Make Model Name : Gulfstream G200 (IAI 1126 Galaxy)

Crew Size.Number Of Crew : 2

Flight Plan : IFR

Flight Phase : Climb

Route In Use : Vectors

Route In Use.SID : LVK 3

Airspace.Class E : NCT

Aircraft : 2

Reference : Y

Make Model Name : Any Unknown or Unlisted Aircraft Manufacturer

Operating Under FAR Part : Part 91

Person

Reference : 1

Location Of Person.Facility : NCT.TRACON

Reporter Organization : Government

Function.Air Traffic Control : Departure

Function.Air Traffic Control : Approach

Qualification.Air Traffic Control : Fully Certified

Experience.Air Traffic Control.Time Certified In Pos 1 (yrs) : 5

ASRS Report Number.Accession Number : 1574643

Human Factors : Communication Breakdown

Communication Breakdown.Party1 : ATC

Communication Breakdown.Party2 : Flight Crew

Events

Anomaly.ATC Issue : All Types

Anomaly.Conflict : Airborne Conflict

Anomaly.Inflight Event / Encounter : CFTT / CFIT

Detector.Automation : Aircraft RA

Detector.Person : Flight Crew

When Detected : In-flight

Result.Flight Crew : Took Evasive Action

Result.Flight Crew : Returned To Clearance

Result.Air Traffic Control : Provided Assistance

Assessments

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

Narrative: 1

I released Aircraft X from LVK airport on the LVK3 departure. The aircraft checked in 018 climbing to 040 on the departure procedure. I asked him to IDENT and issued traffic 1 mile away indicating 036. I told the aircraft radar contact and issued a turn to heading of 360 and climbed the aircraft to 100 when the aircraft was leaving 026. I had to reissue the turn and climb to the aircraft for additional traffic that was along his course at 029 indicated. The aircraft then advised that he was responding to an RA and descended into a 038 MVA to 022 when I issued a "Low Altitude Alert" to the aircraft before Aircraft X started a climb to 100.

LVK airport is in a valley with no radar/radio coverage to approach control you cannot talk to the aircraft until almost 020 with the aircraft climbing to 040 on the departure procedure. I recommend they expand the Delta to 4000 to the north to protect the departures from the airport.

Synopsis

NorCal TRACON Controller reported an unsafe situation with a departure off of Livermore airport.

Time / Day

Date : 201808
Local Time Of Day : 1201-1800

Place

Locale Reference.Airport : IWA.Airport
State Reference : AZ
Relative Position.Angle.Radial : 100
Relative Position.Distance.Nautical Miles : 25
Altitude.AGL.Single Value : 200

Environment

Flight Conditions : VMC
Weather Elements / Visibility.Visibility : 60
Light : Daylight
Ceiling.Single Value : 12000

Aircraft

Reference : X
Aircraft Operator : Air Taxi
Make Model Name : Eurocopter AS 350/355/EC130 - Astar/Twinstar/Ecureuil
Operating Under FAR Part : Part 135
Flight Plan : VFR
Mission : Passenger
Flight Phase : Descent
Route In Use : VFR Route
Airspace.Class G : E67

Person

Reference : 1
Location Of Person.Aircraft : X
Location In Aircraft : Flight Deck
Reporter Organization : Air Taxi
Function.Flight Crew : Pilot Flying
Function.Flight Crew : Single Pilot
Qualification.Flight Crew : Instrument
Qualification.Flight Crew : Air Transport Pilot (ATP)
Qualification.Flight Crew : Flight Instructor
Experience.Flight Crew.Total : 17500
Experience.Flight Crew.Last 90 Days : 70
Experience.Flight Crew.Type : 2000
ASRS Report Number.Accession Number : 1574537
Human Factors : Situational Awareness

Events

Anomaly.Inflight Event / Encounter : CFTT / CFIT
Detector.Person : Flight Crew
Miss Distance.Vertical : 200

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

Assessments

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

Narrative: 1

During descent from mountainous terrain, I descended too early and passed within less than 300 feet AGL of a ridge. This was an unintentional excursion during descent from mountainous terrain into the valley floor. I was leaving a 1000 foot AGL cruise to a planned 1500 foot cruise in lower terrain. During my descent I noticed my radar altimeter decreasing in altitude, I expected it to indicate approximately 300 to 400 feet passing the ridge, but I noticed it actually indicate a low of just above 200 prior to starting its climb back up to indicate approximately 2000 AGL. I never intended to be below 300, but the aircraft indications did show that I was below 300.

Synopsis

AS350 Pilot reported starting a descent too early and passing within less than 300 feet of a ridge.

Time / Day

Date : 201809

Local Time Of Day : 1201-1800

Place

Locale Reference.Airport : MSP.Airport

State Reference : MN

Altitude.AGL.Single Value : 1000

Environment

Flight Conditions : VMC

Weather Elements / Visibility : Haze / Smoke

Light : Daylight

Aircraft

Reference : X

ATC / Advisory.TRACON : M98

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 : Initial Approach

Route In Use : Visual Approach

Airspace.Class B : MSP

Person

Reference : 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

ASRS Report Number.Accession Number : 1574150

Human Factors : Distraction

Human Factors : Workload

Human Factors : Time Pressure

Events

Anomaly.Deviation - Altitude : Excursion From Assigned Altitude

Anomaly.Deviation - Procedural : Published Material / Policy

Anomaly.Inflight Event / Encounter : Unstabilized Approach

Anomaly.Inflight Event / Encounter : CFIT / 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 : Became Reoriented
Result.Air Traffic Control : Issued Advisory / Alert

Assessments

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

Narrative: 1

Pilot Flying (PF) descended below the glideslope due to multiple changes from ATC. It was a visual approach and when the Pilot Monitoring (PM) realized we were below the glideslope opted to maintain current altitude until intercepting the glideslope again. ATC called a low altitude alert, but the approach was continued. The aircraft landed without event. ATC changed our arrival below FL180 increasing the workload for the PM. It was a hazy day so visibility was limited. ATC was expecting us to call a visual but the PF was unable to identify the airport. ATC originally had given us direct to a fix, but since we had not called the airport in sight gave us a heading to intercept the ILS and cleared us for the ILS. PF began getting behind the automation but started calling for the flaps at the appropriate time. We were still in white needles to intercept the fix (contrary to our clearance) but the PF found the airport and we were cleared for a visual approach. PF felt behind and pulled the spoilers to slow the aircraft when flaps could have been put in. PF called for gear down prior to flaps 20 and was reminded by PM. While configuring the PF dialed a lower altitude prior to intercepting the FAF. Flaps were called on schedule. When calling for flaps 45 it was discovered by the PF that the spoilers were still out. This was corrected. Upon reaching flaps 45 the PM realized they were descending below the glideslope (full scale). The descent was arrested 1000 ft above field elevation. PM stated to no longer descend. PF opted to re-intercept the GS from our current altitude. ATC stated altitude alert, and we responded we were correcting. The approach was continued though the approach was unstabilized (due to glideslope full scale and below 1000ft). Conditions were visual and no obstacles were anticipated during the approach. The aircraft was never below 800ft AGL prior to re-intercepting the GS. The AC was landed without event.

Switching to green needles (as ATC had originally cleared us) could have mitigated a lot of the errors that came from this event. Better PM skill and scan could have prevented getting too low. A go around upon realization of error.

Synopsis

CRJ Captain reported a low altitude alert from ATC while on approach to MSP.

Time / Day

Date : 201808
Local Time Of Day : 1801-2400

Place

Locale Reference.Airport : ZZZ.Airport
State Reference : US
Altitude.MSL.Single Value : 6500

Environment

Flight Conditions : VMC
Light : Night

Aircraft

Reference : X
ATC / Advisory.TRACON : ZZZ
Aircraft Operator : Corporate
Make Model Name : Citation V/Ultra/Encore (C560)
Crew Size.Number Of Crew : 2
Operating Under FAR Part : Part 135
Flight Plan : IFR
Mission : Passenger
Flight Phase : Initial Approach
Flight Phase : Descent
Airspace.Class E : ZZZ

Person

Reference : 1
Location Of Person.Aircraft : X
Location In Aircraft : Flight Deck
Reporter Organization : Corporate
Function.Flight Crew : Captain
Function.Flight Crew : Pilot Not Flying
Qualification.Flight Crew : Instrument
Qualification.Flight Crew : Air Transport Pilot (ATP)
Qualification.Flight Crew : Multiengine
ASRS Report Number.Accession Number : 1574043
Human Factors : Human-Machine Interface
Human Factors : Situational Awareness
Human Factors : Confusion

Events

Anomaly.Inflight Event / Encounter : CFTT / CFIT
Detector.Automation : Aircraft Terrain Warning
When Detected : In-flight
Result.Flight Crew : FLC complied w / Automation / Advisory

Assessments

Contributing Factors / Situations : Aircraft

Contributing Factors / Situations : Environment - Non Weather Related

Contributing Factors / Situations : Human Factors

Primary Problem : Aircraft

Narrative: 1

We were approaching the airport and we were given clearance for a Visual Approach. We were at about 5000 feet roughly 7 miles from the airport. We started a descent to the runway and got a 'terrain' warning on the GPWS (Ground Proximity Warning System). Immediately after that we got a 'pull up' alert. It was at night in VFR conditions. We had the runway as well as all surrounding terrain in sight and were well clear of the terrain. We complied with the 'pull up' warning just in case we missed something. I believe our rate of descent may have caused this alarm to go off. At no point were we close enough to any terrain for this to have gone off and at no time was the aircraft in any unsafe situation. After the warning stopped we completed the landing as normal without further issue.

Synopsis

Cessna Citation pilot reported receiving a Ground Proximity Warning while conducting a Visual Approach.

Time / Day

Date : 201808

Local Time Of Day : 1201-1800

Place

Locale Reference.Airport : UAAA.Airport

State Reference : FO

Environment

Flight Conditions : Marginal

Weather Elements / Visibility : Thunderstorm

Aircraft

Reference : X

Make Model Name : Widebody Transport

Operating Under FAR Part : Part 121

Flight Plan : IFR

Nav In Use.Localizer/Glideslope/ILS : Runway 23L

Flight Phase : Initial Approach

Person

Reference : 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

ASRS Report Number.Accession Number : 1573968

Human Factors : Time Pressure

Human Factors : Communication Breakdown

Communication Breakdown.Party1 : Flight Crew

Communication Breakdown.Party2 : Flight Crew

Events

Anomaly.Deviation - Procedural : Published Material / Policy

Anomaly.Inflight Event / Encounter : Weather / Turbulence

Anomaly.Inflight Event / Encounter : Unstabilized Approach

Anomaly.Inflight Event / Encounter : CFIT / CFIT

Detector.Automation : Aircraft Other Automation

Detector.Person : Observer

Detector.Person : Air Traffic Control

Detector.Person : Flight Crew

Were Passengers Involved In Event : N

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

Captain was Pilot Monitoring and First Officer X was Pilot Flying. First Officer Y and myself were at rest for this leg as we would be operating the [next] leg. I was asleep in the left bunk and noticed we had started a descent into Almaty and had not been notified of our arrival. I got up and went to the cockpit as we were descending through 10,000 ft. First Officer Y had not yet come up either as neither of us were notified of our arrival and subsequently were not briefed on the approach. I noticed that we were being vectored for a visual approach to 23L. There were rain showers in the area and scattered between us and the runway. First Officer Y came to the cockpit about the time we were coming through 1500 ft to the best of my recollection. I was sitting in the second observer's seat and had my headset on but as there is no mic function in that seat, it was difficult to communicate. Both the Captain and First Officer X had the ILS tuned and identified but were doing a visual approach. When First Officer Y came into the cockpit he noticed that we were not established on the ILS but were tuned into it and asked what kind of approach were we doing. We were approaching from the right side of the approach and about 5 miles out when I saw the runway and stated that I saw the runway and the Captain acknowledged that he saw it also. However, I lost sight of it shortly after as a rain shower obscured it. The Captain stated that we had until 500 ft to get established. As we were approaching 500 ft however, we were showing full deflection of the glide slope below us and still not established on the localizer. I said that we need to go around which I'm not sure if the Captain heard me or not but First Officer Y repeated that we need to go around at which the Captain turned to First Officer Y and said something to the effect that he had it under control. Then ATC suggested that we go around and comeback for an ILS. The Captain told ATC that he had the visual and would continue. First Officer X corrected for being high but in doing so descended rapidly through the glide slope and about that same time, ATC advised to contact Tower. This was about 2 mile final. As we got closer, we received the [aural] alerts "glideslope" "too low" "pull up". On short final the captain attempted to contact Tower but was still on approach frequency and as he was preoccupied trying to help stabilize the aircraft, we landed before contacting Tower. The touchdown and landing rollout were otherwise uneventful but there were multiple times a go around should have been initiated and after three of us (myself, First Officer Y and ATC) said to go around, the approach was continued. During breakfast this morning with the Captain I discussed the events of what happened and was as diplomatic as I could be without being accusatory and wanted him to know that I and First Officer Y were disappointed that we were disregarded when we said to go around. I told him that I wasn't second guessing his judgement when giving First Officer X a chance to get stabilized but when it got beyond reasonable and was told by three different people to go around that we were quite disappointed. I wasn't looking for an apology but rather an acknowledgement of the go around policy in the FOM which states that "Regardless of the reason for a go-around, any flight crew member can call for a go-around and the Pilot Flying MUST honor/execute a go-around." I must say that I was a little disappointed with my conversation with the Captain as he refused to acknowledge the FOM and that he should have executed a go-around. I believe First Officer X should also have executed the go-around but was taking direction from the Captain to continue. Captain is otherwise very friendly and a pleasure to fly with but in this case, I think that he should've followed the FOM or at least in retrospect acknowledged that he put us all in an uncomfortable position and would strive to make sure that wouldn't happen again.

Synopsis

First Officer reported after receiving alerts from ATC, flight crew, and the EPGWS to "Go Around", the Captain continued the landing.

Time / Day

Date : 201808

Local Time Of Day : 1201-1800

Place

Locale Reference.Airport : ZZZ.Airport

State Reference : US

Altitude.AGL.Single Value : 500

Environment

Flight Conditions : VMC

Light : Daylight

Aircraft

Reference : X

ATC / Advisory.Tower : ZZZ

Aircraft Operator : Personal

Make Model Name : Bonanza 35

Crew Size.Number Of Crew : 1

Operating Under FAR Part : Part 91

Flight Plan : None

Mission : Personal

Flight Phase : Landing

Airspace.Class D : ZZZ

Person

Reference : 1

Location Of Person.Aircraft : X

Location In Aircraft : Flight Deck

Reporter Organization : Personal

Function.Flight Crew : Single Pilot

Qualification.Flight Crew : Private

Qualification.Flight Crew : Instrument

Experience.Flight Crew.Total : 450

Experience.Flight Crew.Last 90 Days : 5

Experience.Flight Crew.Type : 200

ASRS Report Number.Accession Number : 1573518

Human Factors : Situational Awareness

Human Factors : Communication Breakdown

Communication Breakdown.Party1 : Flight Crew

Communication Breakdown.Party2 : ATC

Events

Anomaly.ATC Issue : All Types

Anomaly.Deviation - Procedural : Published Material / Policy

Anomaly.Deviation - Procedural : FAR

Anomaly.Inflight Event / Encounter : CFTT / CFIT

Detector.Person : Flight Crew

When Detected : In-flight
Result.Air Traffic Control : Issued New Clearance

Assessments

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

Narrative: 1

I was on left downwind for ZZZ preparing for the landing. I crossed the point abeam the threshold, lowered my gear and started my descent. The tower called for helicopter traffic nearby. I reported negative traffic and tower instructed to extend downwind and that they would call my base. I complied and continued still slightly descending, expecting to get on the base turn any second.

However the controller either got busy with other traffic and forgot about me or decided to re-sequence me for landing. I continued on downwind, but stopped my descent and was holding altitude (at that point it was around 1200 MSL, 300 feet below TPA). After being on downwind until about 3nm from the airport I realized that I was too low because of rising terrain which should be about 600 feet MSL at that point, so I was probably flying about 500-600 feet above the houses, and even higher terrain was ahead of me. At that point I added power and raised my gear in order to achieve a good climb rate.

The tower finally called my base about 4.5nm from the airport, and the rest of the flight was uneventful.

In retrospect I should have stopped my descent earlier and started my climb as soon as I was beyond normal point when I turn base which is my normal practice when dealing with extended downwind. I think the contributing factor in this case was the anticipation of imminent base turn because I was vectored around much slower helicopter traffic and not some jet on instrument approach which is usually the case for extended downwind; plus not flying much recently also affected my decision making. Also, the normal pattern is right traffic which doesn't put you over rising terrain that quickly.

Overall it wasn't a dangerous situation, but it could be if it happened at night, plus I got lower than prescribed by FAR over populated area (although as this was a part of landing procedure, not sure if it applies even though the downwind extended too much).

Synopsis

BE35 pilot reported descending too low waiting for ATC to call the base turn due to traffic.

Time / Day

Date : 201808

Local Time Of Day : 1201-1800

Place

Locale Reference.Airport : ZZZ.Airport

State Reference : US

Altitude.AGL.Single Value : 8000

Environment

Flight Conditions : VMC

Aircraft

Reference : X

ATC / Advisory.Tower : ZZZ

Aircraft Operator : Air Carrier

Make Model Name : Regional Jet 200 ER/LR (CRJ200)

Crew Size.Number Of Crew : 2

Operating Under FAR Part : Part 121

Flight Plan : IFR

Mission : Passenger

Flight Phase : Initial Approach

Airspace.Class D : ZZZ

Person

Reference : 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 : 1573325

Human Factors : Workload

Events

Anomaly.Deviation - Altitude : Excursion From Assigned Altitude

Anomaly.Deviation - Procedural : Published Material / Policy

Anomaly.Inflight Event / Encounter : CFTT / CFIT

Detector.Automation : Aircraft Terrain Warning

Detector.Person : Flight Crew

Detector.Person : Air Traffic Control

When Detected : In-flight

Result.Flight Crew : Became Reoriented

Result.Air Traffic Control : Issued Advisory / Alert

Assessments

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

Narrative: 1

While flying the [approach, the] aircraft descended to approximately 800 AGL during visual approach prior to the final segment. Following descent clearance and subsequent clearance to fly the [approach], and on the offshore segment of the approach, tower instructed us to "square off" the turn to final for traffic in the pattern. Additional traffic was called to our 3 o'clock position. At this time I confirmed the instructions to the CA (Captain) (Pilot Flying) and immediately began a visual scan for the traffic. I glanced back to the PFD and called "You're at 1,250 feet," to call attention to the CA that we were getting low for our distance from the airport. I went back outside the aircraft momentarily to scan for the called traffic. Next time I looked inside we were at 800 feet AGL. I immediately called the deviation to the CA, saying, "check altitude - 800 feet." As the CA corrected immediately tower called, "Low altitude alert, 700 feet." The CA regained altitude to approximately 1,200 AGL prior to commencing final descent to the airport. The flight continued without further incident.

The CA had disconnected the AP during the initial descent phase of the visual approach. During the descent, the CA was sequencing waypoints manually on the FMS, including programming and cleaning up the approach. Throughout the flying day, the CA was very hands on and performing several PM (Pilot Monitoring) tasks while he was PF (Pilot Flying). I feel that should SOPs regarding PF/PM duties had been adhered to during the flight the likelihood of the incident occurring would have been significantly reduced. I also feel that disconnecting the autopilot and hand-flying the approach would not have been a bad thing in itself should PF/PM duties had been followed. The CA hand-flying a visual approach while being heads-down into the FMS contributed to the lack of attention to altitude. The adjustment of the approach per ATC instructions was a contributing factor. The additional traffic called by tower (but not depicted on TCAS) at our 3 o'clock (which was in the direction of our turn back to the airport) took my attention as PM from monitoring flight data to an outside visual scan for traffic.

Reinforcement of CRM during critical phases of flight. Reinforcement that hand-flying the aircraft requires complete attention to flight instruments by the PF.

Synopsis

CRJ First Officer reported the Captain descended early on a visual approach and failed to follow SOP's on several occasions.

Time / Day

Date : 201808

Local Time Of Day : 1201-1800

Place

Locale Reference.ATC Facility : ZLC.ARTCC

State Reference : UT

Altitude.MSL.Single Value : 10000

Aircraft

Reference : X

ATC / Advisory.Center : ZLC

Aircraft Operator : Personal

Make Model Name : DA40 Diamond Star

Crew Size.Number Of Crew : 1

Operating Under FAR Part : Part 91

Flight Plan : IFR

Flight Phase : Cruise

Route In Use.Airway : V4

Airspace.Class E : ZLC

Person

Reference : 1

Location Of Person.Facility : ZLC.ARTCC

Reporter Organization : Government

Function.Air Traffic Control : Enroute

Qualification.Air Traffic Control : Fully Certified

ASRS Report Number.Accession Number : 1573208

Human Factors : Communication Breakdown

Human Factors : Situational Awareness

Human Factors : Confusion

Communication Breakdown.Party1 : ATC

Communication Breakdown.Party2 : ATC

Events

Anomaly.ATC Issue : All Types

Anomaly.Deviation - Procedural : Clearance

Anomaly.Inflight Event / Encounter : CFIT / CFIT

Detector.Person : Air Traffic Control

Result.Air Traffic Control : Provided Assistance

Assessments

Contributing Factors / Situations : Procedure

Contributing Factors / Situations : Human Factors

Primary Problem : Procedure

Narrative: 1

Aircraft X was cleared via V4 BYI direct TWF. We descended aircraft to 100 and shipped as per LOA. TWF called and asked if the aircraft was over DRYAD or MALTT or something for the ILS. We said no, that they were on V4 to BYI. They said okay and asked for control. We gave them control. Later, we saw the aircraft was westbound into high MEA. We called and asked what they were doing and thought the controller said they were going to DRYAD and we informed them they were entering high MEA. They asked what altitude they needed and we said 120 (the MEA was 113). They gave us some explanation of what their strip showed (direct MEDEA or something). We again said they were on V4 and our strip showed that. The controller climbed to 120 and gave direct DRYAD. The plane did enter the 113 MEA when they were at 100.

It seemed like the TWF Controller didn't have the complete flight plan on their strip. I don't know why that is and what the controller gave the aircraft or was thinking. They should have had the routing.

Synopsis

Salt Lake Center Controller reported an aircraft was allowed to operate below the Minimum En-route Altitude.

Time / Day

Date : 201808

Local Time Of Day : 1201-1800

Place

Locale Reference.ATC Facility : ZZZ.TRACON

State Reference : US

Altitude.MSL.Single Value : 9000

Environment

Flight Conditions : IMC

Aircraft

Reference : X

ATC / Advisory.TRACON : ZZZ

Make Model Name : Small Aircraft

Crew Size.Number Of Crew : 1

Operating Under FAR Part : Part 91

Flight Plan : IFR

Mission : Training

Flight Phase : Climb

Route In Use : Vectors

Airspace.Class C : ZZZ

Person

Reference : 1

Location Of Person.Facility : ZZZ.TRACON

Reporter Organization : Government

Function.Air Traffic Control : Approach

Qualification.Air Traffic Control : Developmental

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

ASRS Report Number.Accession Number : 1572605

Human Factors : Communication Breakdown

Human Factors : Workload

Human Factors : Training / Qualification

Communication Breakdown.Party1 : ATC

Communication Breakdown.Party2 : Flight Crew

Events

Anomaly.ATC Issue : All Types

Anomaly.Deviation - Procedural : Published Material / Policy

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

Result.Air Traffic Control : Issued New Clearance

Assessments

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

Narrative: 1

I was working the DR position and there were multiple IFR practice approaches all day due to the weather being just below VFR minimums most of the day. As far as I can recall, Aircraft X came off IFR asking to be vectored for an instrument approach. I don't recall what approach he was on. I have not been given time to listen to the tapes so I am unsure what altitude aircraft was originally issued in climb out, what he reported climbing to in initial climb, or if I restated climb and maintain 090 and whether or not he read that back. As far as I know at this time, I issued vectors northbound to the downwind for an approach to either runway 17L or 17R with the belief that he was in a climb to 090. I think the aircraft was northbound on close to a 350 heading when the low altitude alert went off and got my attention.

I noticed his altitude was below the MVA (Minimum Vectoring Altitude) but I was immediately alarmed as I figured he was just climbing slow. I asked him to verify still climbing to 090. He surprisingly responded in the negative and said he was given 080. I immediately reissued the climb to 090 and made a point of verifying if there were in obstacles that could be a danger. I did not see any and in my immediate judgement he was not in danger as long as he really was in the climb to 090. I immediately informed the supervisor that was sitting behind the desk that I had an IFR aircraft that ended up being below the MVA. I thought he was in a climb to 090, but when questioned he said he was given 080, and I did not notice there was a possible problem until the low altitude alert went off. The supervisor did not come over and look at the scope and tell me to issue any kind of safety alert and I already explained why I did not on my own. I was still focused working traffic at the time and asked the supervisor to listen to the tapes and advise me if any action needed to be taken (pilot deviation and brasher or maybe I messed up somewhere and didn't hear something I should have). After the supervisor said he listened to the tapes I distinctly remember him telling me, "He was given 090 and read it back."

I was still working the same DR session at this point and I am pretty sure that Aircraft X was still flying. I was not asked to give a brasher warning to the pilot. After my session was over I did not feel the need to file an [ASRS Report] or listen to the tapes because I immediately told the Supervisor on the CIC (Controller-in-Charge) position, he said he listened to the tapes, and I was not told that any action needed to be taken. I was thankful the low altitude alert did its job and alerted me in a timely enough fashion to fix a problem before anything bad happened. I already explained that I have not listened to the tapes and I am unsure where the fault in miscommunication happened. I was busy working the radar position all day with an unusual amount of IFR and IFR practice approach aircraft that were necessitated because of the weather. I noticed that something odd happened, fixed it to the best of my ability at the time, and immediately informed the supervisor who did not tell me to take any kind of action.

I am sure better recommendations on how to avoid this situation in the future can be found after examining the tapes and determining where the break in communication occurred. All IFR aircraft doing practice approaches are issued 090 as their standard climb out. It's possible he said something else and I missed it. My attention could have been split or not fully on him at the time and maybe I only heard what I expected to hear. In the future I will certainly make it a point to go back and listen to the tapes myself.

Synopsis

TRACON Controller reported a small aircraft at 8,000 feet entered a higher Minimum Vectoring Altitude.

Time / Day

Date : 201808

Local Time Of Day : 0601-1200

Place

Locale Reference.Airport : IDA.Airport

State Reference : ID

Altitude.MSL.Single Value : 9500

Aircraft

Reference : X

ATC / Advisory.Center : ZLC

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

Flight Phase : Final Approach

Person

Reference : 1

Location Of Person.Facility : ZLC.ARTCC

Reporter Organization : Government

Function.Air Traffic Control : Enroute

Qualification.Air Traffic Control : Fully Certified

ASRS Report Number.Accession Number : 1571965

Human Factors : Distraction

Human Factors : Confusion

Events

Anomaly.Deviation - Altitude : Excursion From Assigned Altitude

Anomaly.Deviation - Procedural : Published Material / Policy

Anomaly.Deviation - Procedural : Clearance

Anomaly.Inflight Event / Encounter : CFTT / CFIT

Detector.Person : Air Traffic Control

Result.Flight Crew : Returned To Clearance

Result.Air Traffic Control : Provided Assistance

Assessments

Contributing Factors / Situations : Human Factors

Contributing Factors / Situations : Procedure

Primary Problem : Human Factors

Narrative: 1

Aircraft X was cleared for an ILS approach via the SABAT transition. The transition altitude all the way to the localizer is 11,500 feet. The pilot descended to 9,500 feet. I checked the approach plate to see if there was a descending altitude on the transition that I missed,

but I couldn't see one, so I queried the pilot about the procedure. He said I was correct, that the transition altitude remained at 11,500 feet. I gave the pilot a low altitude alert, then climbed him to the MIA [Minimum IFR Altitude] of 10,000 [feet] and vectored the aircraft onto the localizer.

Synopsis

Salt Lake ARTCC Controller reported an aircraft descending below a transition altitude by 2,000 feet.

Time / Day

Date : 201807
Local Time Of Day : 0001-0600

Place

Locale Reference.Airport : ZZZ.Airport
State Reference : US
Altitude.MSL.Single Value : 2000

Environment

Flight Conditions : Mixed
Weather Elements / Visibility : Cloudy
Weather Elements / Visibility.Visibility : 10
Light : Daylight
Ceiling.Single Value : 600

Aircraft

Reference : X
ATC / Advisory.Tower : ZZZ
Aircraft Operator : Corporate
Make Model Name : Learjet 45
Crew Size.Number Of Crew : 2
Operating Under FAR Part : Part 91
Flight Plan : IFR
Mission : Passenger
Nav In Use : FMS Or FMC
Flight Phase : Final Approach
Route In Use : Visual Approach
Airspace.Class D : ZZZ

Component

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

Person

Reference : 1
Location Of Person.Aircraft : X
Location In Aircraft : Flight Deck
Reporter Organization : Corporate
Function.Flight Crew : First Officer
Qualification.Flight Crew : Instrument
Qualification.Flight Crew : Air Transport Pilot (ATP)
Qualification.Flight Crew : Multiengine
Experience.Flight Crew.Total : 6044
Experience.Flight Crew.Last 90 Days : 110
Experience.Flight Crew.Type : 70
ASRS Report Number.Accession Number : 1571608
Human Factors : Communication Breakdown

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

Events

Anomaly.Aircraft Equipment Problem : Less Severe
Anomaly.Deviation - Procedural : Published Material / Policy
Anomaly.Deviation - Procedural : FAR
Anomaly.Inflight Event / Encounter : CFTT / CFIT
Detector.Automation : Air Traffic Control
Miss Distance.Vertical : 500
When Detected : In-flight
Result.Flight Crew : FLC complied w / Automation / Advisory

Assessments

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

Narrative: 1

This specific aircraft had a database problem with both UNS-1 FMS (Flight Management System) units. After a previous software update, it reset the date to a future date, and as a result, the FMS was unusable for RNAV/GPS approaches. A GPS approach could be loaded in the FMS, but the message "No RAIM at FAF (Final Approach Fix)" would display, and all guidance would be lost after crossing the FAF on an IAP (Instrument Approach Procedures).

As a result, the company issued an email explaining the problem, and stating that GPS approaches could not be flown, as there would be no guidance after the FAF, and that ground-based approaches were to be used until the problem could be solved, as per manufacturer's instructions on the original squawk.

The gist of it was this: The FMS could guide you on a RNAV/GPS approach up to the FAF, but after that point, all lateral and vertical guidance would be lost.

We flew the arrival into ZZZ and were handed off from Center to Approach Control. I was the PM (Pilot Monitoring) and was responsible for the radio communication. The PIC was the PF (Pilot Flying) on this leg. We had discussed the problem with the FMS en route, and had agreed on the fact that there would be no guidance on an RNAV/GPS approach after the FAF, and that we would plan on the ILS approach.

ATIS reported the winds as calm, overcast at around 6,000/6,500 feet, and FEW clouds at 600 feet. It also reported that the Runway 9 was in use, and to expect the RNAV/GPS or visual approach to Runway 9.

Upon handoff to Approach Control, I informed them that we were unable any RNAV approaches, and he responded that he assumed that meant that we were looking for the ILS, which I confirmed. He came back at some point saying that the ILS was out of order and asked what we wanted to do. I had already given the PIC the ATIS report, and he instructed me to tell them that we could accept the RNAV/GPS to Runway 9. The controller asked us to confirm that we were indeed able to accept the RNAV approach, and the PIC

nodded his head and said yes, so I replied with an affirmative.

We were cleared direct to IAF (Initial Approach Fix). I had loaded a different waypoint in the FMS as an IAF, so had to reload the approach into the FMS. The PIC requested a vector to fly towards [IAF] while we were getting the approach loaded into the FMS, and ATC gave us a heading to fly, and when able- direct to [IAF]. Once loaded, we navigated to [IAF], and turned inbound onto the final approach course at [waypoint], towards the FAF. I was busy with the before landing configuration of the plane, and the checklist- with my head down, and glanced momentarily outside and saw that the reported FEW 600 feet was a fairly solid layer underneath with patches of ground contact, closer to BKN in my opinion.

Approach handed us off to the Tower, but the PIC asked for confirmation that we had indeed been cleared for the approach. The Tower Controller asked us to standby for a second while he confirmed- he confirmed that we were. I was busy completing the BEFORE LANDING checklist, and when I looked up- saw that we had flown past the FAF and were descending in IMC conditions into the layer of cloud. I looked over at the PIC to ask him what his intentions were, and to see if he had some form of guidance on his PFD (Primary Flight Display) when the Tower Controller called on the radio saying : "Stop your descent immediately!" as we had triggered a ground proximity warning for him. I looked up, and saw that we had just broken out below the cloud layer, and that there was a ridge line between us and the runway.

We continued visually, and landed on Runway 9.

In hindsight, there should not have been any assumptions made on my part that the PIC and I were on the same page regarding the functionality of the FMS. I should have clarified with the approach controller that we would only be able to accept the approach up until the FAF, and if we were not in VMC at that point, that we would be diverting to [an alternate airport], or another alternate- if they were not willing to allow us to fly the ILS approach into ZZZ. I should have been more assertive towards the PIC, insisting on a missed approach when we reached the FAF without the airport in sight.

Synopsis

Learjet 45 pilot reported flying a RNAV/GPS approach when it was not authorized.

Time / Day

Date : 201808

Local Time Of Day : 0601-1200

Place

Locale Reference.Airport : DEN.Airport

State Reference : CO

Environment

Light : Daylight

Aircraft

Reference : X

ATC / Advisory.Tower : DEN

Aircraft Operator : Air Carrier

Make Model Name : Medium Transport

Crew Size.Number Of Crew : 2

Operating Under FAR Part : Part 121

Flight Plan : IFR

Mission : Passenger

Flight Phase : Landing

Airspace.Class B : DEN

Person

Reference : 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 : Instrument

Qualification.Flight Crew : Multiengine

ASRS Report Number.Accession Number : 1571538

Human Factors : Communication Breakdown

Human Factors : Distraction

Communication Breakdown.Party1 : Flight Crew

Communication Breakdown.Party2 : Flight Crew

Events

Anomaly.Deviation - Procedural : Published Material / Policy

Anomaly.Inflight Event / Encounter : Unstabilized Approach

Anomaly.Inflight Event / Encounter : CFTT / CFIT

Detector.Automation : Aircraft Terrain Warning

Detector.Person : Flight Crew

When Detected : In-flight

Result.Flight Crew : Executed Go Around / Missed Approach

Assessments

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

Narrative: 1

We were cleared for the ILS roughly 20 miles from the airport and assigned 170 KTS. We configured flaps 20 and gear down to maintain speed and separation with lead aircraft on the approach. Just after FAF the Captain and I noticed that the altimeter were 100 feet off. This was due to an incorrect altimeter setting on my side. When I switched the navigation source to the localized I had changed the altimeter instead. I thought I had fixed it back to the proper setting but failed to cross check as we were entering the approach. As we continued on the approach we received a "pull up, terrain" warning. It was at this point I recognized that the flaps were improperly set and we executed the go around. We were busy on the approach and had been slowed early. Improper altimeter distracted us acutely around FAF. Ensure crosscheck by crew any time improper inputs are made.

Synopsis

Air carrier First Officer reported distraction of incorrect altimeter setting resulting a terrain warning.

Time / Day

Date : 201808
Local Time Of Day : 0601-1200

Place

Locale Reference.Airport : BWI.Airport
State Reference : MD

Environment

Flight Conditions : VMC
Light : Daylight

Aircraft

Reference : X
ATC / Advisory.TRACON : PCT
Aircraft Operator : Air Carrier
Make Model Name : Caravan Undifferentiated
Crew Size.Number Of Crew : 2
Flight Plan : IFR
Flight Phase : Climb
Route In Use : Vectors
Airspace.Class B : BWI

Person

Reference : 1
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 : Commercial
Qualification.Flight Crew : Instrument
Experience.Flight Crew.Total : 500
Experience.Flight Crew.Last 90 Days : 85
Experience.Flight Crew.Type : 120
ASRS Report Number.Accession Number : 1570572
Human Factors : Fatigue
Human Factors : Situational Awareness
Human Factors : Communication Breakdown
Communication Breakdown.Party1 : Flight Crew
Communication Breakdown.Party2 : ATC

Events

Anomaly.Conflict : Ground Conflict, Less Severe
Anomaly.Deviation - Procedural : Published Material / Policy
Anomaly.Deviation - 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.Air Traffic Control : Issued Advisory / Alert

Assessments

Contributing Factors / Situations : Airspace Structure

Contributing Factors / Situations : Human Factors

Primary Problem : Human Factors

Narrative: 1

The Captain was pilot flying, I was pilot monitoring. The Captain began his initial climb out normally but within thirty seconds he attempted to gain more airspeed on climb most likely to achieve a shorter en route time. His airspeed was about ~140 KTS, [which is] much too far above the Caravan's recommended climb speed, which slowed the vertical speed down to only about ~200-300 feet per minute. I let him know that his climb rate was too slow but he assured me that it would be OK. He attempted to correct this with a slightly higher pitch attitude, however, it wasn't a large enough correction to fix the problem and it wasn't applied quickly enough. Within a few minutes after takeoff, approach advised us that we were below the minimum safe altitude for the sector and that we were getting far too close to a tall obstacle. I called on the radio that we were going to expedite the climb. We ended up avoiding the obstacle with enough safe altitude separation. I believe my Captain was tired or fatigued, as our shift began early in the morning and he seemed to act more lethargic than normal. I don't remember the specifics of the altitudes and exact location. To note, I had written the local time of the incident down, however, that may only be accurate to plus or minus one hour.

Synopsis

C208 First Officer reported a fatigued Captain's failure to maintain proper climb profile to reach safe altitude.

Time / Day

Date : 201808

Local Time Of Day : 1201-1800

Place

Locale Reference.Airport : AVP.Airport

State Reference : PA

Altitude.MSL.Single Value : 3000

Environment

Flight Conditions : VMC

Light : Daylight

Aircraft

Reference : X

ATC / Advisory.Tower : AVP

Aircraft Operator : Air Carrier

Make Model Name : EMB ERJ 145 ER/LR

Crew Size.Number Of Crew : 2

Operating Under FAR Part : Part 121

Flight Plan : IFR

Mission : Passenger

Flight Phase : Initial Approach

Airspace.Class D : AVP

Person

Reference : 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 : 1570428

Human Factors : Situational Awareness

Events

Anomaly.Inflight Event / Encounter : CFTT / CFIT

Detector.Automation : Aircraft Terrain Warning

When Detected : In-flight

Result.Flight Crew : Became Reoriented

Assessments

Contributing Factors / Situations : Human Factors

Primary Problem : Human Factors

Narrative: 1

While on visual approach to AVP and self-vectoring towards the FAF for Runway 22 we descended to 3,000 feet and began a downwind to base turn. During the turn the EGPWS (Enhanced Ground Proximity Warning System) sensed an obstacle tower near the COSBY INT ahead that was inside 500 feet of our altitude and gave us a single and momentary "TERRAIN" warning. Both the FO (First Officer) and I reached for the thrust levers and looked outside, we both agreed the warning was temporary and we were not near terrain and decided to continue.

EGPWS sensing an obstacle through our turning path. Readied for evasive maneuver, confirmed location and verified no terrain. Could have added 100 to 200 feet to altitude to avoid the warning.

Synopsis

EMB-145 Captain reported receiving an EGPWS obstacle warning on a visual approach to AVP.

Time / Day

Date : 201808

Local Time Of Day : 1201-1800

Place

Locale Reference.ATC Facility : ZZZZ.ARTCC

State Reference : FO

Environment

Flight Conditions : Marginal

Weather Elements / Visibility : Rain

Light : Daylight

Aircraft

Reference : X

ATC / Advisory. TRACON : ZZZZ

Aircraft Operator : Air Carrier

Make Model Name : B747-800 Advanced

Operating Under FAR Part : Part 121

Mission : Cargo / Freight

Nav In Use : FMS Or FMC

Flight Phase : Climb

Route In Use.SID : ZZZZZ2

Component

Aircraft Component : FMS/FMC

Aircraft Reference : X

Problem : Failed

Person : 1

Reference : 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 : 1570079

Person : 2

Reference : 2

Location Of Person.Aircraft : X

Location In Aircraft : Flight Deck

Reporter Organization : Air Carrier

Function.Flight Crew : Pilot Not Flying

Function.Flight Crew : First Officer

Qualification.Flight Crew : Air Transport Pilot (ATP)
Qualification.Flight Crew : Multiengine
Qualification.Flight Crew : Instrument
ASRS Report Number.Accession Number : 1570080
Human Factors : Troubleshooting
Human Factors : Workload

Person : 3

Reference : 3
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 : 1570081
Human Factors : Communication Breakdown
Human Factors : Workload
Communication Breakdown.Party1 : Flight Crew
Communication Breakdown.Party2 : ATC

Events

Anomaly.Aircraft Equipment Problem : Critical
Anomaly.Deviation - Track / Heading : All Types
Anomaly.Deviation - Procedural : Clearance
Anomaly.Deviation - Procedural : Published Material / Policy
Anomaly.Inflight Event / Encounter : CFTT / CFIT
Detector.Person : Observer
Detector.Person : Flight Crew
When Detected : In-flight
Result.Flight Crew : Requested ATC Assistance / Clarification
Result.Flight Crew : Overcame Equipment Problem
Result.Flight Crew : FLC Overrode Automation
Result.Flight Crew : Became Reoriented
Result.Air Traffic Control : Provided Assistance

Assessments

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

Narrative: 1

Just after takeoff we had a dual FMC failure. Captain was pilot flying and took control of aircraft while both First Officers ran checklists and com. Captain asked NFP (non-flying pilot) to quickly tell ATC we have lost all navigation capability and get a vector. Busy frequency and when able to broadcast he was unable to transmit. Observer FO (First Officer) took communications and told ATC. By this time ATC could see we were off course and asked if we had terrain ahead in sight and we replied yes and could maintain clearance. CA (Captain) started a turn to [the] right. ATC had us turn back to heading 140 for a moment and then 090 climb to 9,000 feet. At this time we got basic Nav back per

checklist and continued on course. Contacted Dispatch, [Maintenance], [Chief Pilot] via SATCOM. Elected to continue at least to [an alternate airport] if not all the way to [our destination], had lots of fuel to burn or dump regardless. We had concerns about class 2 Nav without FMC limitations in Vol 1. About 1hr into flight recovered L FMC only and continued to [our destination]. Heavy rain [at origin airport] and we suspect that water got into E/E [Electrical/Electronic] compartment?

Be more proactive during heavy rain to ensure ground crews and flight crew keep L1 door shut. Now that myself and [the] crew have experienced a dual FMC failure at one of the worst times of a flight, I will certainly be better prepared in the future. Thankful for a good experienced crew and CRM. We talked it through once established on a safe heading and altitude and got the company personnel involved via SATCOM.

Narrative: 2

I was in the observer's seat. There had been moderate to heavy rain from the time we reached the aircraft until departure. On takeoff roll, I noticed the flaps indication on the upper EICAS [Engine Indicating and Crew Alerting System] flash to the expanded view, momentarily, three times. I took note, and decided to wait until airborne to mention it. Shortly after takeoff, at about 1,000 feet, we got the EICAS message "NO LAND 3." Shortly thereafter, several more EICAS messages appeared, including AUTOTHROTTLE and AUTOPILOT. Captain manually disengaged the AP (autopilot), FO (First Officer) cycled the FDs (flight displays). Captain attempted to re-engage the AP, but by then the CDUs (control display panels) read "TIMEOUT-RESELECT" and all of the Nav data had dropped from both NDs (navigation displays). Captain advised that his plan was to continue hand-flying, and asked the FO to advise ATC that we needed a vector. FO tried to, but found that he was unable to transmit. I was able to tell them that we needed a vector because of a navigation system failure, but there was some confusion. The controller didn't give us a vector right away, but advised that we were below the minimum altitude for that sector, and asked if we could see the terrain and maintain clearance. I advised that we could, and he gave us a heading of 140. After a few moments, he said that we were now above the minimum altitude and gave us a new heading of 090, and I believe an altitude of 7,000. By now the FO in the right seat had the use of the radio again, and we continued the climb. He also began running the ECL (Electronic Checklist), which regained us the use of the flight plan and the AP, but not the autothrottle. With a course visible on the ND, we elected to initially continue on course using HDG and FLCH. Once things had calmed down a bit, the FO took over flying and radio duties while the Captain made a SATCOM call to company. As we continued, we considered alternates and fuel dump requirements, but about an hour into the flight we regained use of the left FMC. At this point, we re-engaged LNAV, VNAV, and autothrottles, and decided to continue to [our destination].

Narrative: 3

Shortly after takeoff we had a dual FMC failure. My CDU (Control Display Panel), right seat pilot monitoring, displayed the menu page without a prompt for the FMC to be selected. I had at this time lost my navigation on my ND (Navigation Display). A few moments later the Captain who was flying lost his FMC navigation. Autopilot was on when the dual FMC failure occurred. FMA's (flight mode annunciators) on both sides had yellow lines through LNAV and VNAV modes. Captain selected HDG select and FLCH. I told ATC we lost Navigation Display and requested a heading to fly. ATC was concerned with our altitude since we were below their Minimum Vector Altitude. I advised ATC we had the terrain in sight as we were climbing at normal rate. As we got above ATC MVA they gave us a heading and altitude to keep us on the departure. I told ATC we needed to run a checklist and would at this time continue on the departure. After running the Dual FMC Failure

checklist we were able to navigate the departure with the stand by navigation. I took control of the aircraft and radios while the Captain and second observer talked to Dispatch and Maintenance about possibly going to [an alternate airport] or to continue to [our destination]. We were able to get the left FMC working and double checked the aircraft status so that it was ok to make the crossing to [our destination] with one FMC.

We believe that the heavy rain during the loading of the aircraft may have gotten moisture into the E and E compartment. We continued to [the destination] with no further problems.

We got to the aircraft while it was raining and observed that the L1 door was closed. During our time on the flight deck I notice the L1 door opening and closing through the rest of the loading process. So the loaders were cautious about the rain getting into the aircraft. I suggest maybe we could lay towels or something that might absorb the moisture as the L1 door opens and closes to help prevent water from accumulating and possibly getting to the E and E compartment or getting somewhere that might adversely affect navigation equipment.

Synopsis

B747 flight crew reported that during climb the aircraft lost all navigation systems and had a dual FMC failure.

Time / Day

Date : 201808

Local Time Of Day : 1801-2400

Place

Locale Reference.ATC Facility : MKC.Tower

State Reference : MO

Environment

Flight Conditions : VMC

Light : Daylight

Aircraft

Reference : X

ATC / Advisory.Tower : MKC

Aircraft Operator : Corporate

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

Operating Under FAR Part : Part 91

Flight Plan : IFR

Mission : Passenger

Flight Phase : Initial Approach

Route In Use : Visual Approach

Airspace.Class D : MKC

Person

Reference : 1

Location Of Person.Facility : MKC.Tower

Reporter Organization : Government

Function.Air Traffic Control : Local

Qualification.Air Traffic Control : Fully Certified

ASRS Report Number.Accession Number : 1569955

Human Factors : Situational Awareness

Events

Anomaly.ATC Issue : All Types

Anomaly.Deviation - Procedural : Other / Unknown

Anomaly.Inflight Event / Encounter : CFTT / CFIT

Detector.Automation : Air Traffic Control

Detector.Person : Air Traffic Control

When Detected : In-flight

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 : Airport

Contributing Factors / Situations : Airspace Structure

Contributing Factors / Situations : Chart Or Publication

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

Narrative: 1

Aircraft X was inbound from the southeast and tracking direct to the airport. Aircraft X checked on with Tower on a Visual Approach southeast of the downtown buildings and twin antennas. I cleared Aircraft X to land and asked the pilot if he intended to base north or south of the twin antennas. I didn't have any other traffic at the time so this served mostly to remind or alert the pilot about the antennas as he descended and flew towards them. The pilot first stated his intention to turn base south of the antennas. The Low Altitude Alert triggered and as the Approach Controller keyed up the shout line to notify me of the Low Altitude Alert the pilot of Aircraft X called up again and changed his plan to base north of the twin antennas. I observed Aircraft X out the windows and watched as he maintained safe spacing from the obstructions before turning Final.

Stop bringing aircraft from the southeast direct to the airport and stop actively creating watch situations. The downtown buildings and twin antenna are significant obstructions and frequently interfere with pilots getting and keeping the airport in sight. A 7 to 10 mile straight in for aircraft arriving for the northeast prevents this.

Synopsis

MKC Tower Controller reported the Approach Controller advised them of a Low Altitude Alert for an aircraft on a Visual Approach.

Time / Day

Date : 201805
Local Time Of Day : 1201-1800

Place

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

Environment

Weather Elements / Visibility.Other

Aircraft

Reference : X
ATC / Advisory.TRACON : ZZZ
Aircraft Operator : Air Carrier
Make Model Name : EMB ERJ 145 ER/LR
Crew Size.Number Of Crew : 2
Operating Under FAR Part : Part 121
Mission : Passenger
Flight Phase : Descent

Person

Reference : 1
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 : Commercial
Qualification.Flight Crew : Air Transport Pilot (ATP)
Qualification.Flight Crew : Multiengine
ASRS Report Number.Accession Number : 1569659
Human Factors : Communication Breakdown
Human Factors : Situational Awareness
Human Factors : Time Pressure
Communication Breakdown.Party1 : Flight Crew
Communication Breakdown.Party2 : ATC

Events

Anomaly.ATC Issue : All Types
Anomaly.Deviation - Speed : All Types
Anomaly.Deviation - Procedural : Published Material / Policy
Anomaly.Inflight Event / Encounter : CFTT / CFIT
Detector.Automation : Aircraft Terrain Warning
Detector.Person : Flight Crew
When Detected : In-flight
Result.Flight Crew : FLC complied w / Automation / Advisory
Result.Flight Crew : FLC Override Automation

Result.Flight Crew : Became Reoriented
Result.Air Traffic Control : Issued Advisory / Alert

Assessments

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

Narrative: 1

As a result of ATC leaving us at a high altitude so close to the airport, I personally felt rushed trying to prepare for arrival.

On descent into ZZZ, ATC left us high and we had to descend quickly. VMC conditions prevailed, but ZZZ Approach cleared us for the procedure turn at the IAF on the RNAV XX Approach to allow for descent at around FL180. As Pilot Monitoring, I looked at the approach chart and proceeded to update the FMS for the new clearance. While I was heading down, I heard the Captain say something to the effect of "What the heck!" I looked up to see a 5,300 feet per minute descent with autopilot disconnected. Captain was immediately recovering when we received an overspeed warning and a call from ATC issuing a terrain alert. ATC asked if we had terrain in sight and I replied that we did. Overspeed only lasted about 5 seconds and I noticed a max speed of 308 knots. Recovery occurred around 11,000 feet. The approach was a stable approach and we proceeded to land.

As pilot monitoring, I should have queried ATC about the altitude. Even if we weren't allowed to descend further, I should have asked for extended vectors to allow for descent.

Synopsis

An ERJ First Officer reported that ATC left the aircraft at a high altitude close to the airport which created a very steep and rapid descent.

Time / Day

Date : 201808

Local Time Of Day : 0601-1200

Place

Locale Reference.Airport : SKBO.Airport

State Reference : FO

Altitude.MSL.Single Value : 12000

Environment

Flight Conditions : VMC

Aircraft

Reference : X

ATC / Advisory.Center : SKED

Aircraft Operator : Air Carrier

Make Model Name : B767-300 and 300 ER

Crew Size.Number Of Crew : 2

Operating Under FAR Part : Part 121

Flight Plan : IFR

Mission : Cargo / Freight

Nav In Use.Localizer/Glideslope/ILS : Runway 13L

Flight Phase : Initial Approach

Person

Reference : 1

Location Of Person.Aircraft : X

Location In Aircraft : Flight Deck

Reporter Organization : Air Carrier

Function.Flight Crew : Captain

Function.Flight Crew : Pilot Not Flying

Qualification.Flight Crew : Instrument

Qualification.Flight Crew : Air Transport Pilot (ATP)

Qualification.Flight Crew : Multiengine

ASRS Report Number.Accession Number : 1569259

Human Factors : Distraction

Human Factors : Situational Awareness

Human Factors : Confusion

Events

Anomaly.Aircraft Equipment Problem : Less Severe

Anomaly.Inflight Event / Encounter : CFIT / CFIT

Anomaly.Inflight Event / Encounter : Unstabilized Approach

Detector.Person : Flight Crew

When Detected : In-flight

Result.Flight Crew : Became Reoriented

Result.Flight Crew : Took Evasive Action

Assessments

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

Narrative: 1

While approaching the airport we were given a clearance direct to the BOG VOR for the ILS Z Runway 13L Approach with a speed assignment of 230 knots. While our altitude was on path for a standardized approach, our speed was higher than anticipated. The First Officer was flying. As we approached the BOG VOR he began to slow the aircraft to 210 knots. I suggested that the First Officer slow the aircraft. He elected to use speed brakes and I further suggested landing gear extension to slow at a faster rate, because there would also be an altitude change passing the VOR. The First Officer elected to utilize LNAV/VNAV and armed the ILS with the autopilot engaged as we were cleared for the approach. As we crossed the VOR the aircraft turned, captured the LOC and glideslope and the aircraft began to descend on the glideslope from the 12,000 foot altitude with the gear extending and the speed brakes deployed.

I shifted my focus to the before landing checklist flow, ATC calls and finding the preceding aircraft and airport visually. Those tasks seemed to be done in the usual time frame. When I spotted the airport we seemed to be low. I looked back inside at the flight instruments to check our progress and found we were full scale deflection low on the glideslope, the command bars were centered, the autopilot was still engaged, and the LOC and GS were still captured. This made no sense so my call of "glideslope deviation" was slowed by another 200 foot loss. I immediately called "too low, climb now", pushed the power up and pulled on the yoke. The First Officer also came on the controls, I'm not sure which of us disconnected the autopilot, but I retracted the speed brakes while we climbed back to the glideslope and what looked to be an appropriate visual glide path. There was no GPWS or glideslope (or any other warning) warning. The flight landed without further incident.

After arriving at the gate, I called Maintenance Control to try to understand what failure could have transpired since we had no warning/failure indications. It was very possible that the preceding aircraft created interference with the ILS signal. But there is no way for us to gauge to what level that may have occurred. The airport briefing guide mentions possible LOC signal deviations but not glideslope deviations. The mechanic performed some maintenance fault scans. He was scrolling through the long list of faults too fast for me to take good notes, but there were faults which said, "MCDP flight fault, Main Data Supply fault, several no land 3 faults, ILS Beam Error, and several VNAV failures." In the final analysis, the mechanic thought that it was a ground based signal error.

First, given the nature and history of this airport's flight operations, it should be a Captain only arrival and departure. Since it is not a captain only airport, first officers have every expectation they will either fly into or out of this airport, especially since this is only a two leg day. Several days prior the First Officer had already proclaimed that he had been here at least 8 times in very recent history and was thoroughly familiar and prepared to fly one of the legs in or out. Sometimes even those who think they are prepared have difficulty with this airport. Second, the briefing guide is very comprehensive but should also state that the ILS has possible glideslope signal issues as well. Third, I would recommend not using LNAV/VNAV to get to LOC/GS capture, but rather fly the step down segments as published.

Synopsis

A B767 Captain reported the First Officer descended below the glideslope even though they were using autopilot and were receiving the localizer and glideslope signal.