ASRS Database Report Set

Controlled Flight Toward Terrain

Report Set Description	A sampling of reports referencing inadvertent controlled flight towards terrain.
Update Number	31.0
Date of Update	May 31, 2017
Number of Records in Report Set	50
Number of New Records in Report Set	50
Type of Records in Report Set	For each update, new records received at ASRS will displace a like number of the oldest records in the Report Set, with the objective of providing the fifty most recent relevant ASRS Database records. Records within this Report Set have been screened to assure their relevance to the topic.

National Aeronautics and
Space Administration

Ames Research Center
Moffett Field, CA 94035-1000

TH: 262-7

MEMORANDUM FOR: Recipients of Aviation Safety Reporting System Data

SUBJECT: Data Derived from ASRS Reports

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

ASRS reports are submitted voluntarily. The existence in the ASRS database of reports concerning a specific topic cannot, therefore, be used to infer the prevalence of that problem within the National Airspace System.

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

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

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

Linda J Connell

Linda J. Connell, 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: 1431864 *(1 of 50)*

Synopsis

Piper Aerostar pilot reported receiving a low altitude alert from ATC while on the RNAV 34 Approach to HKS.

ACN: 1429785 *(2 of 50)*

Synopsis

Chicago TRACON Instructor reported that an aircraft was turned off final, into a lower Minimum Vectoring Altitude area. Aircraft was then instructed to a different heading in order to exit the lower MVA area.

ACN: 1429680 *(3 of 50)*

Synopsis

Air carrier flight crew reported receiving a GPWS warning while on approach over terrain at night.

ACN: 1429087 *(4 of 50)*

Synopsis

Phenom 300 First Officer reported climbing in response to UES Tower issuing a low altitude alert during a night visual approach.

ACN: 1428762 *(5 of 50)*

Synopsis

SCT Developmental Controller reported a loss of separation with a LAX departure and an aircraft going around.

ACN: 1428633 *(6 of 50)*

Synopsis

Air carrier First Officer reported the Tower directed a go-around due to FOD on the runway, followed by a VFR pattern at 4800 feet causing a GPWS terrain warning.

ACN: 1427592 *(7 of 50)*

Synopsis

The flight crew of an Embraer ERJ-175 reported that they descended too rapidly when they received a EPGWS obstacle alert and a call from Tower to say they were too low.

ACN: 1427065 *(8 of 50)*

Synopsis

Airbus A320 series flight crew experienced a terrain warning descending to 10,000 feet approximately 9 NM east of KICDO during the ILS 12 at BZN. The aircraft was climbed to 11,000 feet and ATC confirmed that 10,000 feet was the correct altitude.

ACN: 1426991 *(9 of 50)*

Synopsis

Air carrier flight crew reported they received an EGPWS obstacle warning during a night VOR Runway 26L approach to ELP.

ACN: 1426956 *(10 of 50)*

Synopsis

CE560XLS flight crew reported omitting the step down fix UCEVE with a crossing altitude of 1700 feet during the RNAV 14 approach to STS. This resulted in a terrain warning and a go-around was initiated.

ACN: 1426758 *(11 of 50)*

Synopsis

Light twin pilot reported encountering severe turbulence and windshear on downwind for the SLC ILS Runway 34L at 10000 feet in IMC. 2000 feet was lost and a terrain warning was received along with a master warning for fuel pressure before control was regained.

ACN: 1426102 *(12 of 50)*

Synopsis

Air Carrier crew reported they received a TERRAIN warning on a night visual approach to runway 3 CHO. Crew reported climbing and made a successful landing.

ACN: 1426030 *(13 of 50)*

Synopsis

A320 flight crew reported they received a GPWS terrain warning on a night visual approach to SFO Runway 19L.

ACN: 1425971 *(14 of 50)*

Synopsis

A Controller working alone on a mid shift reported leaving their radar position to enter a PIREP in to a computer and did not notice an aircraft descending below its assigned altitude below the Minimum Vectoring Altitude.

ACN: 1425954 *(15 of 50)*

Synopsis

Beechcraft King Air F90 pilot reported that while descending from an RNAV Approach MDA he struck a tree branch, executed a go-around, and diverted to a field that was VFR. The pilot observed damage to the right wing.

ACN: 1425401 *(16 of 50)*

Synopsis

B767 First Officer reported executing a go-around after receiving a GPWS terrain warning on an RNAV GPS approach to SFO Runway 10L.

ACN: 1425114 *(17 of 50)*

Synopsis

BTV TRACON Controller reported that an aircraft being vectored at the MVA was not able to maintain altitude due to icing.

ACN: 1425068 *(18 of 50)*

Synopsis

S56 Tracon Controller reported vectoring an aircraft encountering icing and unable to maintain altitude and airspeed into lower terrain and out of the conditions.

ACN: 1424295 *(19 of 50)*

Synopsis

BE90 pilot reported diverting to a VFR alternate after incurring aircraft damage when he struck a tree on an IFR approach while descending below the MDA without the runway environment in sight.

ACN: 1424221 *(20 of 50)*

Synopsis

Air carrier flight crew reported they received a low altitude alert from ATC on approach into ASE citing workload, weather, and situational awareness as contributing.

ACN: 1423709 *(21 of 50)*

Synopsis

Air carrier flight crew reported on visual approach to Runway 22 at AVP they received a terrain warning while turning a left base.

ACN: 1423516 *(22 of 50)*

Synopsis

Air carrier flight crew reported on visual approach to Runway 22 at AVP they received a terrain warning while turning a left base.

ACN: 1423493 *(23 of 50)*

Synopsis
HCF TRACON Controller observed an aircraft descend below the published FAF altitude.

ACN: 1423480 *(24 of 50)*

Synopsis
SAT TRACON Controller, distracted assisting an aircraft having difficulty navigating in inclement weather, allowed an aircraft on downwind vectors to fly below their MVA.

ACN: 1423214 *(25 of 50)*

Synopsis
B737 flight crew reported an ATC low altitude alert and unstabilized approach that resulted in a go-around.

ACN: 1423025 *(26 of 50)*

Synopsis
Air carrier Captain reported a terrain warning while approaching ROA on a daylight visual approach.

ACN: 1422930 *(27 of 50)*

Synopsis
B737 flight crew reported receiving a low altitude alert from BWI Tower on the visual approach to Runway 15R, but did not receive an EGPWS warning.

ACN: 1422871 *(28 of 50)*

Synopsis
C182 pilot reported descending below glideslope on an RNAV approach and noted that the glideslope indicator was inoperative only after seeing the visual glideslope indicators showing that the aircraft was below the glideslope.

ACN: 1422139 *(29 of 50)*

Synopsis
Air carrier flight crew reported encountering a terrain warning at night on approach to BTV and took evasive action.

ACN: 1421787 *(30 of 50)*

Synopsis

TWF Approach controllers approved an aircraft entering their airspace at an altitude below their Minimum Vectoring Altitude.

ACN: 1421778 *(31 of 50)*

Synopsis

S56 TRACON Controller reported an A320 on a vector to intercept a Localizer flew through the Localizer course placing the aircraft below the MVA.

ACN: 1420973 *(32 of 50)*

Synopsis

A general aviation pilot reported clipping a tree on final approach to HPN Runway 29. Darkness and the lack of a VASI were reported as contributing factors.

ACN: 1420902 *(33 of 50)*

Synopsis

EMB-175 flight crew reported ATC issued a low altitude alert to them on approach into SDF.

ACN: 1420867 *(34 of 50)*

Synopsis

B767-300 flight crew reported executing a go-around after receiving a low altitude alert from the Tower during the Stadium Visual to EWR Runway 29.

ACN: 1420148 *(35 of 50)*

Synopsis

NCT controllers reported thinking an IFR aircraft was VFR and allowed it to proceed on its own navigation below the MVA.

ACN: 1420057 *(36 of 50)*

Synopsis

Avid Mk IV pilot reported inadvertently touching down in a muddy area during a simulated landing which resulted in a slow speed nose-over.

ACN: 1419897 *(37 of 50)*

Synopsis

A319 First Officer reported receiving a low altitude alert from ATC on a night visual approach to DCA.

ACN: 1419583 *(38 of 50)*

Synopsis

BE58 pilot reported a track and altitude deviation on approach to GTU that resulted in a low altitude alert from ATC.

ACN: 1419189 *(39 of 50)*

Synopsis

CE-680 flight crew reported loss of situational awareness and over-reliance on automation resulted in a track deviation leading to a terrain alert from ATC during the approach to SLC.

ACN: 1419082 *(40 of 50)*

Synopsis

B737-NG First Officer reported receiving a low altitude alert from ATC on approach when the stab trim failed leaving them with manual trim only.

ACN: 1419020 *(41 of 50)*

Synopsis

B737 Captain reported receiving a low altitude alert from ATC on approach to RNO even though the aircraft appeared to be on course and altitude.

ACN: 1418491 *(42 of 50)*

Synopsis

SCT TRACON Controller reported an aircraft departed PSP and needed to return to the airport. They stayed on PSP Tower's frequency, but left the airport environment. This lead to a conflict with an aircraft departing UDD.

ACN: 1418457 *(43 of 50)*

Synopsis

CPR Local Controller reported the Approach Controller was being handed off an aircraft from the Center indicating 100 feet below the MVA. He ordered the Approach Controller to not take the handoff until the aircraft was in a lower MVA.

ACN: 1418294 *(44 of 50)*

Synopsis

Air carrier flight crew reported receiving a Tower low altitude alert along with an aircraft terrain warning after breaking out above minimums and turning to track the river on the Runway 19 LDA Z approach to DCA.

ACN: 1418216 *(45 of 50)*

Synopsis

A BTV TRACON Controller reported observing an aircraft descend below its assigned altitude and below the Minimum Vectoring Altitude.

ACN: 1418014 *(46 of 50)*

Synopsis

Air carrier Captain reported receiving a low altitude alert from ATC while on a night approach to LBB.

ACN: 1417942 *(47 of 50)*

Synopsis

ZOA Controller reported observing another Controller work an aircraft in downdrafts over mountains, but did not handle the situation according to standards.

ACN: 1417440 *(48 of 50)*

Synopsis

A330 First Officer reported receiving a very tight vector for an approach, resulting in the aircraft becoming low on the glideslope and generating a GPWS warning. A timely correction was made to the glideslope and a successful landing was accomplished.

ACN: 1416696 *(49 of 50)*

Synopsis

CRJ-900 Captain reported descending below assigned altitude on approach to PIT and receiving an obstacle warning from the EGPWS.

ACN: 1416231 *(50 of 50)*

Synopsis

BOI TRACON controllers reported radar vectors were issued to an aircraft into an area below the MVA.

Report Narratives

ACN: 1431864 *(1 of 50)*

Time / Day

Date : 201703
Local Time Of Day : 0601-1200

Place

Locale Reference.Airport : HKS.Airport
State Reference : MS
Relative Position.Angle.Radial : 160
Relative Position.Distance.Nautical Miles : 8
Altitude.MSL.Single Value : 2000

Environment

Flight Conditions : IMC
Weather Elements / Visibility.Visibility : 10
Light : Daylight
Ceiling.Single Value : 1200

Aircraft

Reference : X
ATC / Advisory.TRACON : JAN
Aircraft Operator : Corporate
Make Model Name : PA-60 602 Aerostar
Crew Size.Number Of Crew : 1
Operating Under FAR Part : Part 91
Flight Plan : IFR
Mission : Passenger
Nav In Use : GPS
Flight Phase : Initial Approach
Route In Use.Other
Airspace.Class C : JAN

Component

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

Person

Reference : 1
Location Of Person.Aircraft : X
Location In Aircraft : Flight Deck
Reporter Organization : Corporate
Function.Flight Crew : Single Pilot
Qualification.Flight Crew : Instrument
Qualification.Flight Crew : Multiengine
Qualification.Flight Crew : Flight Instructor
Qualification.Flight Crew : Air Transport Pilot (ATP)

Experience.Flight Crew.Total : 20000
Experience.Flight Crew.Last 90 Days : 100
Experience.Flight Crew.Type : 2000
ASRS Report Number.Accession Number : 1431864
Human Factors : Distraction
Human Factors : Human-Machine Interface
Human Factors : Situational Awareness
Human Factors : Workload
Human Factors : Confusion

Events

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

Assessments

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

Narrative: 1

After being vectored to the final, the approach course for RNAV 34 approach was intercepted, after some zig-zagging from the autopilot. After passing what was assumed to be the FAF, the descent was started. This was to LNAV minimums as the KLN 90B GPS is a non WAAS unit and not user friendly as far as I am concerned. Upon approaching the MDA approach advised that there was a low altitude alert. Upon hearing this I made corrections.

This is the first time in [many] years anything like this has ever happened to me. I have been doing recurrent training at least yearly at simulator based training centers. We did break out of the overcast at about 1,200 AGL and good visibility underneath. The problem as I see it was prompted by not looking closely enough at the approach plate. However, when traveling at 150 knots and dealing with a sluggish autopilot along with passengers not understanding the 10,000 feet rule this is often times difficult.

I have often complained that approaches are not simple to read and understand anymore. They name fixes with all sorts of hard to read and pronounce names. This and being a non-precision approach made for more room for errors. I had originally wanted to request the ILS to the opposite runway since the wind and traffic made it an option. My point is approaches should be simple to read and interpret like they used to be. Glidepath info can be a life saver along with alert controllers. It would also be helpful if the FAF were made

more obvious in the overhead view of the approach and not just on the profile. The modern environment makes single pilot operations increasingly more difficult.

Synopsis

Piper Aerostar pilot reported receiving a low altitude alert from ATC while on the RNAV 34 Approach to HKS.

ACN: 1429785 *(2 of 50)*

Time / Day

Date : 201703
Local Time Of Day : 1801-2400

Place

Locale Reference.ATC Facility : C90.TRACON
State Reference : IL

Aircraft

Reference : X
ATC / Advisory.TRACON : C90
Aircraft Operator : Air Carrier
Make Model Name : B737 Undifferentiated or Other Model
Crew Size.Number Of Crew : 2
Flight Plan : IFR
Mission : Passenger
Flight Phase : Final Approach
Route In Use : Vectors
Airspace.Class B : ORD

Person

Reference : 1
Location Of Person.Facility : C90.TRACON
Reporter Organization : Government
Function.Air Traffic Control : Approach
Function.Air Traffic Control : Instructor
Qualification.Air Traffic Control : Fully Certified
Experience.Air Traffic Control.Time Certified In Pos 1 (yrs) : 2
ASRS Report Number.Accession Number : 1429785
Human Factors : Communication Breakdown
Human Factors : Confusion
Human Factors : Distraction
Human Factors : Time Pressure
Human Factors : Training / Qualification
Human Factors : Workload
Human Factors : Situational Awareness
Communication Breakdown.Party1 : ATC
Communication Breakdown.Party2 : ATC

Events

Anomaly.ATC Issue : All Types
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.Air Traffic Control : Issued New Clearance

Assessments

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

Narrative: 1

This event occurred during a training session. The winds were reported out of 210 at 60kts at 3000 feet causing the northbound base leg to carry a lot of speed and slop the north turn from the downwind wide. My trainee recognized that the compression on the base leg was too great and Aircraft X would need to be vectored off the approach and issued a turn north through the final approach course at 3000. It was my understanding that he intended to resequence Aircraft X.

I did not hear the trainee turn Aircraft X back to the west and issue a descent to 2500 in an attempt to save his sequence. When I observed Aircraft X start a turn to the northwest I asked my trainee what Aircraft X was doing and to make sure he was turning east. My trainee then informed me of his plan to save his sequence, however this turn placed Aircraft X in an MVA of 3300 at 2500ft at a heading that did not allow for a legal RNAV approach. I instructed the trainee to turn Aircraft X south out of the MVA and climb. While this got Aircraft X out of the MVA I believe it resulted in less than standard wake turbulence separation with the succeeding aircraft.

I believed my trainee to be far enough along that I would not have thought that he would have considered a turn into a prominent MVA. It was this assumption that allowed me to focus on other issues occurring during this training session and ultimately led to the oversight.

Synopsis

Chicago TRACON Instructor reported that an aircraft was turned off final, into a lower Minimum Vectoring Altitude area. Aircraft was then instructed to a different heading in order to exit the lower MVA area.

ACN: 1429680 *(3 of 50)*

Time / Day

Date : 201703
Local Time Of Day : 1801-2400

Place

Locale Reference.Airport : AVL.Airport
State Reference : NC
Altitude.MSL.Single Value : 4000

Environment

Flight Conditions : VMC
Light : Night

Aircraft

Reference : X
ATC / Advisory.TRACON : AVL
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
Flight Phase : Initial Approach
Route In Use : Visual Approach
Airspace.Class C : AVL

Person : 1

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 : Air Transport Pilot (ATP)
ASRS Report Number.Accession Number : 1429680
Human Factors : Situational Awareness

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 Flying
Qualification.Flight Crew : Air Transport Pilot (ATP)
ASRS Report Number.Accession Number : 1429685
Human Factors : Situational Awareness

Events

Anomaly.Deviation - Procedural : Published Material / Policy
Anomaly.Inflight Event / Encounter : Unstabilized Approach
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 : Environment - Non Weather Related
Contributing Factors / Situations : Human Factors
Primary Problem : Environment - Non Weather Related

Narrative: 1

Inbound to AVL, we received a GPWS warning of TERRAIN, PULL-UP about 10 miles northwest of the airport. We were heading directly to the 5 mile fix for the visual approach for runway 17. The winds were calm and the skies perfectly clear with good visibility. We were aware of the terrain in the area and noted the possible GPWS warning for runway 35.

Coming in from the northwest and landing on runway 17 created a higher rate of descent in order to get down and prepare for the visual approach. We were cleared down to 5,000 feet and when we called the airport in sight, we were then cleared for the visual approach. The GPS to runway 17 depicts 4,000 feet to the final approach so the pilot flying selected 4,000 in the altitude pre-select and initiated a descent in vertical speed mode.

At that time, we were approximately 10 miles northwest of the airport about to level out at 4,000 feet when the GPWS system alerted us of TERRAIN, PULL-UP. The pilot flying disconnected the autopilot and initiated a climb till the warning stopped. We still had the airport in sight at approximately 2-3 miles away from the 5 mile fix, so we extended the flaps and gear normally and executed a stabilized visual approach to runway 17.

I don't know the exact parameters necessary for the GPWS system to activate, but we think it was caused by the higher rate of descent within close proximity to the surrounding terrain. Knowing the terrain could come into play on a visual approach at night, it would have been a better idea to load the GPS to runway 17 in the FMS as a backup.

When cleared for a visual approach at night, it is best to back up the approach with a published ILS, GPS, or VOR approach. This will ensure necessary terrain clearances and enhance situational awareness especially around higher terrain.

Narrative: 2

[Report narrative contained no additional information.]

Synopsis

Air carrier flight crew reported receiving a GPWS warning while on approach over terrain at night.

ACN: 1429087 *(4 of 50)*

Time / Day

Date : 201703
Local Time Of Day : 1801-2400

Place

Locale Reference.Airport : UES.Airport
State Reference : WI
Altitude.AGL.Single Value : 800

Environment

Flight Conditions : VMC
Light : Night

Aircraft

Reference : X
ATC / Advisory.Tower : UES
Aircraft Operator : Fractional
Make Model Name : EMB-505 / Phenom 300
Crew Size.Number Of Crew : 2
Operating Under FAR Part : Part 91
Flight Plan : IFR
Mission : Ferry
Flight Phase : Final Approach
Route In Use : Visual Approach
Airspace.Class D : UES

Person

Reference : 1
Location Of Person.Aircraft : X
Location In Aircraft : Flight Deck
Reporter Organization : Fractional
Function.Flight Crew : First Officer
Function.Flight Crew : Pilot Flying
Qualification.Flight Crew : Air Transport Pilot (ATP)
ASRS Report Number.Accession Number : 1429087
Human Factors : Situational Awareness

Events

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

Assessments

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

Narrative: 1

During night visual approach into UES, aircraft triggered low altitude warning from Tower. Aircraft descended to 800 feet AGL and was in level autopilot engaged flight. Aircraft climbed 300 feet and continued approach with outcome never in doubt. SIC set lower altitude with autopilot still engaged, autopilot should have been disengaged and hand flown the remaining distance.

Suggest more coordination with crewmember. Should have informed other crewmember that aircraft was still under autopilot control and that a lower altitude had been selected during the final mile of the visual approach.

Synopsis

Phenom 300 First Officer reported climbing in response to UES Tower issuing a low altitude alert during a night visual approach.

ACN: 1428762 *(5 of 50)*

Time / Day

Date : 201703
Local Time Of Day : 1201-1800

Place

Locale Reference.ATC Facility : SCT.TRACON
State Reference : CA
Altitude.MSL.Single Value : 1800

Environment

Light : Daylight

Aircraft : 1

Reference : X
ATC / Advisory.TRACON : SCT
Aircraft Operator : Air Carrier
Make Model Name : 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 : Climb
Route In Use.SID : DOTSS1
Airspace.Class B : LAX

Aircraft : 2

Reference : Y
ATC / Advisory.TRACON : SCT
Aircraft Operator : Air Carrier
Make Model Name : Commercial Fixed Wing
Flight Plan : IFR
Flight Phase : Climb
Route In Use : Vectors
Airspace.Class B : LAX

Person

Reference : 1
Location Of Person.Facility : SCT.TRACON
Reporter Organization : Government
Function.Air Traffic Control : Departure
Qualification.Air Traffic Control : Developmental
ASRS Report Number.Accession Number : 1428762
Human Factors : Training / Qualification
Human Factors : Workload
Human Factors : Confusion

Events

Anomaly.ATC Issue : All Types
Anomaly.Conflict : Airborne Conflict
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.Flight Crew : Executed Go Around / Missed Approach
Result.Air Traffic Control : Issued New Clearance

Assessments

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

Narrative: 1

Metroplex (OAPM) was implemented recently. This was my first session in dealing with the new airspace and procedures. I generally familiarize myself while on the assist position. 30 minutes into working traffic and still orientating myself to the new SIDS, I had Aircraft X and Aircraft Y situation develop. Aircraft X was on the DOTSS and Aircraft Y was a Go-around. Aircraft X target acquired off the departure end and checked in. Local 1 called and said Aircraft Y was a go around and will be on a 200 heading. I rogered him. Went back to Aircraft X and issued a turn to heading 210 which is a typical routine that I was taught and did so for concern of a departure off the north complex.

Immediately after I issued the turn to Aircraft X I issued a clearance to cancel the heading and remain on the route/departure. Aircraft Y checked in at 2000 feet. I went back and asked Aircraft X what his heading was and I believe he said he was heading 215. I told him to expedite climb to 3000 feet. In concern for the separation I over separated the Aircraft Y by turning him to heading 160. I tried a couple of times to issue a clearance to Aircraft Y to expedite his climb to 3000 feet and eventually to 4000 feet to get above the MVA (Minimum Vectoring Altitude) without proper acknowledgement. I restated the command to expedite and turned Aircraft Y to heading 070. I am unsure if I had separation between Aircraft X and Aircraft Y and unsure of Aircraft Y's clearance in the MVA.

I think significant thought went to dealing with the SIDS which caused me to flail on other aspects of thought like not turning Aircraft X when Local 1 called on the go-around. The pilots seemed to lag in response to my instruction which probably could have bought me a few hundred feet. I just won't turn my planes off the departure unless it's necessary.

Synopsis

SCT Developmental Controller reported a loss of separation with a LAX departure and an aircraft going around.

ACN: 1428633 *(6 of 50)*

Time / Day

Date : 201702
Local Time Of Day : 1801-2400

Place

Locale Reference.Airport : MSO.Airport
State Reference : MT
Altitude.MSL.Single Value : 4800

Environment

Flight Conditions : VMC
Light : Daylight

Aircraft

Reference : X
ATC / Advisory.Tower : MSO
Aircraft Operator : Air Carrier
Make Model Name : Medium Transport, Low Wing, 2 Turbojet Eng
Crew Size.Number Of Crew : 2
Operating Under FAR Part : Part 121
Flight Plan : IFR
Mission : Passenger
Flight Phase : Initial Climb
Route In Use : Visual Approach
Airspace.Class D : MSO

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)
ASRS Report Number.Accession Number : 1428633

Events

Anomaly.ATC Issue : All Types
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 : FLC complied w / Automation / Advisory

Assessments

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

Narrative: 1

Weather at MSO was VFR. After turning final to Runway 29 at MSO, tower directed us to go around due to foreign object debris (FOD) reported on the runway by preceding aircraft taking off. A go around was performed and runway heading was given by tower along with altitude at pilot's discretion. An altitude of 4,800 feet MSL was chosen (traffic pattern altitude). We were directed to follow preceding traffic, so flaps 30 was selected to slow behind them and also to shorten turn radius. After turning downwind, we received an EGPWS "Terrain, Terrain, Pull Up" warning and a positive pull up was performed to stop the warning (climb of about 50 feet). Positive visual separation was maintained prior to and during the event due to good weather. The visual pattern was continued to a successful landing to Runway 29.

Caused by high terrain airport, poor ATC direction on go around, unfamiliarity with airport (first time at MSO).

Synopsis

Air carrier First Officer reported the Tower directed a go-around due to FOD on the runway, followed by a VFR pattern at 4800 feet causing a GPWS terrain warning.

ACN: 1427592 *(7 of 50)*

Time / Day

Date : 201702
Local Time Of Day : 1201-1800

Place

Locale Reference.Airport : ZZZ.Airport
State Reference : US
Altitude.MSL.Single Value : 900

Aircraft

Reference : X
ATC / Advisory.Tower : ZZZ
Aircraft Operator : Air Carrier
Make Model Name : EMB ERJ 170/175 ER/LR
Crew Size.Number Of Crew : 2
Operating Under FAR Part : Part 121
Flight Plan : IFR
Mission : Passenger
Flight Phase : Final Approach
Route In Use : Visual Approach
Airspace.Class B : ZZZ

Component

Aircraft Component : Aero Charts
Problem : Design

Person : 1

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)
Experience.Flight Crew.Type : 190
ASRS Report Number.Accession Number : 1427592
Human Factors : Human-Machine Interface
Human Factors : Situational Awareness

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)
ASRS Report Number.Accession Number : 1427593
Human Factors : Situational Awareness

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.Automation : Aircraft Terrain Warning
Detector.Person : Flight Crew
Detector.Person : Air Traffic Control
When Detected : In-flight
Result.Flight Crew : Took Evasive Action
Result.Flight Crew : Returned To Clearance
Result.Flight Crew : Became Reoriented
Result.Air Traffic Control : Issued Advisory / Alert
Result.Air Traffic Control : Provided Assistance

Assessments

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

Narrative: 1

While performing the visual approach, I descended sooner than was prescribed on the approach chart. I descended to maintain 900 feet at 4 DME from the VOR instead of at 3 DME. Because of this I received both a GPWS "TERRAIN" caution and a notification by ATC that we were too low. After our flight, the Captain and I debriefed the event and found that the 900 feet label is positioned rather close to the 4 DME label although it has an arrow pointing to the 3 DME label. Unable to look at the approach chart for too long because I was flying the aircraft, I quickly associated 900 feet with 4 DME instead of 3 DME and planned to descend to 900 feet earlier than I should have.

Events like this can be prevented in the future by taking note of descent rate and angle while on the approach and calling out and verifying altitudes at specific fixes or distances while on the approach. The approach plate itself can also be altered by repositioning some of the altitude/distance labels to make things a little clearer and prevent possible confusion.

Narrative: 2

[Report narrative contained no additional information.]

Synopsis

The flight crew of an Embraer ERJ-175 reported that they descended too rapidly when they received a EPGWS obstacle alert and a call from Tower to say they were too low.

ACN: 1427065 *(8 of 50)*

Time / Day

Date : 201702
Local Time Of Day : 0601-1200

Place

Locale Reference.Airport : BZN.Airport
State Reference : MT
Altitude.MSL.Single Value : 10000

Environment

Flight Conditions : IMC
Light : Daylight

Aircraft

Reference : X
ATC / Advisory.TRACON : BOI
Aircraft Operator : Air Carrier
Make Model Name : Airbus 318/319/320/321 Undifferentiated
Crew Size.Number Of Crew : 2
Operating Under FAR Part : Part 121
Flight Plan : IFR
Mission : Passenger
Nav In Use : GPS
Nav In Use.Localizer/Glideslope/ILS : Runway 12
Flight Phase : Initial Approach
Airspace.Class E : BOI

Component

Aircraft Component : GPWS
Aircraft Reference : X
Problem : Design

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 : First Officer
Qualification.Flight Crew : Air Transport Pilot (ATP)
Experience.Flight Crew.Type : 498
ASRS Report Number.Accession Number : 1427065
Human Factors : Situational Awareness

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 : Captain
Qualification.Flight Crew : Air Transport Pilot (ATP)
Experience.Flight Crew.Type : 482
ASRS Report Number.Accession Number : 1427046
Human Factors : Situational Awareness

Events

Anomaly.Aircraft Equipment Problem : Less Severe
Anomaly.Deviation - Altitude : Excursion From Assigned Altitude
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.Air Traffic Control : Issued Advisory / Alert
Result.Air Traffic Control : Issued New Clearance
Result.Aircraft : Equipment Problem Dissipated

Assessments

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

Narrative: 1

In the descent to BZN, we were given direct KICDO (IAF on ILS 12) and a descent to 10,000 MSL. Approximately 9-10 miles east of KICDO, we received a GPWS "TERRAIN, TERRAIN" while IMC. I, as pilot flying, performed the GPWS escape maneuver and climbed up to 11,000 while the captain notified ATC and we were given a stop climb at 11k. The controller said he doesn't usually have anyone have any GPWS hits in that sector but also mentioned the MSA had recently changed in the past few months. We continued to fly the ILS to a full stop without any more incidents.

Narrative: 2

[Report narrative contained no additional information.]

Synopsis

Airbus A320 series flight crew experienced a terrain warning descending to 10,000 feet approximately 9 NM east of KICDO during the ILS 12 at BZN. The aircraft was climbed to 11,000 feet and ATC confirmed that 10,000 feet was the correct altitude.

ACN: 1426991 *(9 of 50)*

Time / Day

Date : 201702
Local Time Of Day : 1801-2400

Place

Locale Reference.Airport : ELP.Airport
State Reference : TX
Altitude.MSL.Single Value : 6400

Environment

Flight Conditions : VMC
Light : Night

Aircraft

Reference : X
ATC / Advisory.TRACON : ELP
Aircraft Operator : Air Carrier
Make Model Name : 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 : Initial Approach
Route In Use.STAR : SAMMR3
Airspace.Class C : ELP

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 Not Flying
Qualification.Flight Crew : Air Transport Pilot (ATP)
Experience.Flight Crew.Total : 10000
ASRS Report Number.Accession Number : 1426991

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 Flying
Qualification.Flight Crew : Air Transport Pilot (ATP)
Experience.Flight Crew.Total : 15000
ASRS Report Number.Accession Number : 1427001

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.Automation : Aircraft Other Automation
Detector.Person : Air Traffic Control
When Detected : In-flight
Result.Flight Crew : Took Evasive Action
Result.Air Traffic Control : Issued New Clearance

Assessments

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

Narrative: 1

I was pilot-monitoring and we were approaching 40 miles from the El Paso VOR with the airport in sight on a clear windy night. We were descending on the SAMMR3 and still talking to ABQ. ABQ Center's transmission quality had deteriorated and I contacted ABQ to make sure we hadn't missed the hand off to ELP Approach. I held the VHF Radio Comm Test button for squelch control and ABQ answered and handed us off to ELP Approach. I told Approach we were descending on the SAMMR3 and had the current ATIS and requested 26L. I recall he cleared us direct to BUSEY which was on the GPS RNAV approach. We were unable to fly the GPS approach, I asked for a fix on the 26L VOR approach and Approach cleared us direct FEMOL. I entered the fix then selected Direct to FEMOL. After we checked and executed direct to FEMOL.

As I was configuring the aircraft, I looked up to see our altitude decreasing below 7,000 feet and I became confused as to our assigned altitude. I asked my flying partner why we were descending to 6000 feet since I had just read the FEMOL crossing altitude of 6900 feet. At the same time we got a transmission from Approach telling us to climb to 8000 feet. I told my flying partner to climb immediately to 8000 feet and we completed the rest of the approach and landing without incident. I recall our lowest altitude was around 6400 feet, I didn't see the radar altimeter tape ever move off its peg, but I did hear the EGPWS annunciate "obstacle...obstacle" at the same time we got the "climb to 8000" instruction from Approach.

One reason was the workload that had us descending head's down on the arrival. It was a VFR night and we were anticipating a visual approach. My flying partner had a plan to configure the aircraft early to control our speed on the approach. ELP was reporting high winds and I thought that was a prudent choice. We got direct FEMOL from ATC and that was the last transmission we heard until we were told to climb to 8000 feet. Perhaps our workload caused us to hyper-focus and cause BOTH of us to not hear the radio transmissions? Could holding down the squelch button have caused our loss of communications? I looked for additional information in our manuals and found no reference to the test button except as a squelch control. Bottom line: we lost situational awareness in a mountainous area.

Charted FMS visual approaches with DME crossing altitudes to 26L would help pilots maintain situational awareness when making visual approaches at night in mountainous terrain. It would also be helpful to add GPS position updating to our INS FMS aircraft. But then we would be able to fly GPS RNAV approaches. I got engrossed in cleaning up the FMS display when I should have been monitoring my flying partner and our altitude more

closely. I spent years flying aircraft in and out of mountain airports in the Pacific Northwest. I know firsthand how dangerous an altitude mistake can be. I am very disappointed that we allowed this to happen and I will much more aware in the future.

Narrative: 2

[Report narrative contained no additional information.]

Synopsis

Air carrier flight crew reported they received an EGPWS obstacle warning during a night VOR Runway 26L approach to ELP.

ACN: 1426956 *(10 of 50)*

Time / Day

Date : 201702
Local Time Of Day : 1201-1800

Place

Locale Reference.Airport : STS.Airport
State Reference : CA
Altitude.MSL.Single Value : 700

Environment

Flight Conditions : IMC
Light : Daylight
Ceiling.Single Value : 800

Aircraft

Reference : X
ATC / Advisory.Tower : STS
Make Model Name : Citation Excel (C560XL)
Crew Size.Number Of Crew : 2
Operating Under FAR Part : Part 91
Flight Plan : IFR
Mission : Training
Nav In Use : FMS Or FMC
Nav In Use : GPS
Flight Phase : Initial Approach
Route In Use.Other
Airspace.Class D : STS

Component

Aircraft Component : MCP
Aircraft Reference : X
Problem : Improperly Operated

Person : 1

Reference : 1
Location Of Person.Aircraft : X
Location In Aircraft : Flight Deck
Function.Flight Crew : Pilot Not Flying
Function.Flight Crew : First Officer
Qualification.Flight Crew : Air Transport Pilot (ATP)
ASRS Report Number.Accession Number : 1426956
Human Factors : Situational Awareness

Person : 2

Reference : 2
Location Of Person.Aircraft : X
Location In Aircraft : Flight Deck
Function.Flight Crew : Pilot Flying

Function.Flight Crew : Captain
Qualification.Flight Crew : Air Transport Pilot (ATP)
ASRS Report Number.Accession Number : 1426955
Human Factors : Situational Awareness

Events

Anomaly.Deviation - Procedural : Published Material / Policy
Anomaly.Deviation - Procedural : FAR
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 : Executed Go Around / Missed Approach
Result.Flight Crew : Became Reoriented

Assessments

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

Narrative: 1

During a flight to STS, the Captain and I briefed the RNAV 14 approach into STS. Our briefings overlooked the step down fix UCEVE at 1700 feet. Because of this oversight, we descended from 3300 feet at EHETY to around 700. This is where we received a terrain climb alert and went missed approach.

Narrative: 2

After crossing EHETY I instructed the non-flying pilot to set MDA, We flew down to the MDA and then got a Terrain warning. I called for go around, we executed the go around and got vectors for another approach.

Synopsis

CE560XLS flight crew reported omitting the step down fix UCEVE with a crossing altitude of 1700 feet during the RNAV 14 approach to STS. This resulted in a terrain warning and a go-around was initiated.

ACN: 1426758 *(11 of 50)*

Time / Day

Date : 201702
Local Time Of Day : 1801-2400

Place

Locale Reference.Airport : SLC.Airport
State Reference : UT
Altitude.MSL.Single Value : 10000

Environment

Flight Conditions : IMC
Weather Elements / Visibility : Turbulence
Weather Elements / Visibility : Windshear
Weather Elements / Visibility : Snow
Weather Elements / Visibility : Icing
Light : Night

Aircraft

Reference : X
ATC / Advisory.TRACON : S56
Aircraft Operator : Personal
Make Model Name : Small Transport, Low Wing, 2 Turboprop Eng
Crew Size.Number Of Crew : 1
Operating Under FAR Part : Part 91
Flight Plan : IFR
Mission : Personal
Nav In Use.Localizer/Glideslope/ILS : Runway 34L
Flight Phase : Initial Approach
Route In Use : Vectors
Airspace.Class B : SLC

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 : Commercial
Qualification.Flight Crew : Multiengine
Experience.Flight Crew.Total : 3200
Experience.Flight Crew.Last 90 Days : 20
Experience.Flight Crew.Type : 600
ASRS Report Number.Accession Number : 1426758
Human Factors : Other / Unknown

Events

Anomaly.Deviation - Altitude : Excursion From Assigned Altitude
Anomaly.Deviation - Procedural : Clearance

Anomaly.Inflight Event / Encounter : Weather / Turbulence
Anomaly.Inflight Event / Encounter : Loss Of Aircraft Control
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 : Returned To Clearance
Result.Flight Crew : Regained Aircraft Control
Result.Flight Crew : Executed Go Around / Missed Approach
Result.Air Traffic Control : Issued New Clearance
Result.Air Traffic Control : Issued Advisory / Alert

Assessments

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

Narrative: 1

Had lined up for the ILS 3 at OGD, but at glideslope intercept weather had dropped to 1/4 miles and 400 ft ceilings. Broke off approach and was vectored to the west to see if weather would move through. That didn't occur so we requested an approach to land SLC and were vectored to SLC ILS 34L. Approximately 10 miles downwind in solid IMC, autopilot and altitude hold on and about to turn base we hit a downdraft that dropped us approximately 2000 feet. Horizon ball was all brown, autopilot and altitude were ineffective, the loss of control set off the master warning system due to lack of fuel (at the time we had 750 lbs per side), and the terrain warning went off. Recovery was accomplished, but with a 2000 foot gain (assigned altitude 10000 at the floor of incident approximately 8000 at the ceiling of incident approximately 12000). I was then routed back to the west and north on vectors for sequencing back to the ILS 34L SLC that was shot with a side step on final in VFR conditions to RWY 34R. During taxi in I was instructed to contact SLC TRACON by phone, which I did and he asked what had occurred and I relayed a shorter version with not as many facts. He was very polite, professional, and understanding.

Synopsis

Light twin pilot reported encountering severe turbulence and windshear on downwind for the SLC ILS Runway 34L at 10000 feet in IMC. 2000 feet was lost and a terrain warning was received along with a master warning for fuel pressure before control was regained.

ACN: 1426102 *(12 of 50)*

Time / Day

Date : 201702
Local Time Of Day : 0001-0600

Place

Locale Reference.Airport : CHO.Airport
State Reference : VA
Altitude.MSL.Single Value : 2600

Environment

Flight Conditions : VMC
Light : Night

Aircraft

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

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 Not Flying
Qualification.Flight Crew : Air Transport Pilot (ATP)
ASRS Report Number.Accession Number : 1426102
Human Factors : Situational Awareness

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 Flying
Qualification.Flight Crew : Air Transport Pilot (ATP)
ASRS Report Number.Accession Number : 1426101

Events

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

We were approaching CHO runway 3 from the north in right traffic. We had briefed that there was a mountain ridge 4000' (according to the 10-7 page) to the west of the airport and that right traffic would be more appropriate. The MSA to the Northwest was 4900' and to the Southeast was 2000' of Gordonsville VOR. We were cleared for the visual approach and to broadcast on advisory since tower was closed. We were downwind descending midfield to 2600' thinking we were appropriately clear of the terrain and the 1796' tower located on the downwind. As we were about to turn base, we were noticing the sector height turning yellow at 025. Then we received a "TERRAIN" AURAL CAUTION EGPWS and took appropriate evasive action climbing to 3000 feet.

The main threat is the tower on downwind and the canted MSA line for terrain based on GVE VOR which is further south and east of the field. We were attempting to stay safe and get configured early outside the SIPME final approach fix as appropriate to have a stabilized approach. We chose right downwind to safely avoid the 4000' mountain ridge 10 miles west of the field mentioned in the 10-7 page. Secondarily, it was late in the day and we were approaching 12 hours of duty. I think the error is that we missed that MSA location maybe assuming it to be further north and centered on the field. The UAS is definitely that the EGPWS caution parameters were set off based on our altitude near terrain and/or manmade obstacle in the downwind.

A great deal was learned from this event. Fortunately it wasn't a more extreme EGPWS WARNING, but a UAS nonetheless. We need to be better at Situational Awareness in terrain at night by planning better and having a better idea of the location of the navaid that the MSA is based on. Here it was further south than we thought. At night, as we do in a place like AVL, we should be on a segment of the ILS possibly at this location before accepting the visual. We got into the visual approach mindset and thought we were safely approaching. We need to pay more attention on these clear nights when these threats are present so as to avoid this UAS.

Narrative: 2

[Report narrative contained no additional information.]

Synopsis

Air Carrier crew reported they received a TERRAIN warning on a night visual approach to runway 3 CHO. Crew reported climbing and made a successful landing.

ACN: 1426030 *(13 of 50)*

Time / Day

Date : 201702
Local Time Of Day : 1201-1800

Place

Locale Reference.Airport : SFO.Airport
State Reference : CA
Altitude.MSL.Single Value : 3100

Environment

Flight Conditions : IMC
Weather Elements / Visibility : Rain
Light : Night

Aircraft

Reference : X
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
Nav In Use.Localizer/Glideslope/ILS : Runway 19L
Flight Phase : Final Approach
Route In Use : Visual Approach
Route In Use : Vectors
Airspace.Class B : SFO

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 : 24550
Experience.Flight Crew.Last 90 Days : 170
Experience.Flight Crew.Type : 15790
ASRS Report Number.Accession Number : 1426030
Human Factors : Situational Awareness

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)
Experience.Flight Crew.Type : 12856
ASRS Report Number.Accession Number : 1426046
Human Factors : Situational Awareness

Events

Anomaly.ATC Issue : All Types
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
Contributing Factors / Situations : Procedure
Primary Problem : Procedure

Narrative: 1

ATC vectors to ILS 19L. On base leg vector at 5000' we were given clearance to descend to 3100' on a heading of 160 degrees to intercept 19L localizer and once established cleared to descend to 2800' until SHAKE. We were a couple miles southwest of BERKS (15 DME ISIA) when given turn to intercept. At about 3100' just prior to LOC intercept we received a GPWS warning for terrain. I disconnected the autopilot and executed the GPWS escape maneuver. We climbed to about 5000' and continued to intercept the localizer and reloaded the approach. We notified ATC and once clear of the terrain warning and acquiring the runway, we continued the approach for a normal landing. We made visual contact with the airport just outside of SHAKE.

Narrative: 2

3100 feet near BERKS is approximately 1000 feet above the terrain but well below the 5000 foot altitude on the approach plate. We were surprised to get the warning but complied as we were night IMC. The whole event lasted just a few seconds.

Synopsis

A320 flight crew reported they received a GPWS terrain warning on a night visual approach to SFO Runway 19L.

ACN: 1425971 *(14 of 50)*

Time / Day

Date : 201702
Local Time Of Day : 0601-1200

Place

Locale Reference.ATC Facility : BOI.TRACON
State Reference : ID
Altitude.MSL.Single Value : 8000

Environment

Flight Conditions : Marginal
Weather Elements / Visibility : Turbulence
Light : Night

Aircraft

Reference : X
ATC / Advisory.Tower : BOI
ATC / Advisory.TRACON : BOI
Aircraft Operator : Air Carrier
Make Model Name : EMB ERJ 170/175 ER/LR
Crew Size.Number Of Crew : 2
Operating Under FAR Part : Part 121
Flight Plan : IFR
Mission : Passenger
Flight Phase : Descent
Route In Use : Vectors
Route In Use.STAR : SADYL2
Airspace.Class C : BOI

Person

Reference : 1
Location Of Person.Facility : BOI.Tower
Reporter Organization : Government
Function.Air Traffic Control : Departure
Function.Air Traffic Control : Flight Data / Clearance Delivery
Function.Air Traffic Control : Ground
Function.Air Traffic Control : Approach
Function.Air Traffic Control : Local
Qualification.Air Traffic Control : Fully Certified
Experience.Air Traffic Control.Time Certified In Pos 1 (yrs) : 2
ASRS Report Number.Accession Number : 1425971
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 : Published Material / Policy

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 : Became Reoriented
Result.Air Traffic Control : Issued New Clearance
Result.Air Traffic Control : Issued Advisory / Alert

Assessments

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

Narrative: 1

I was working alone in the tower cab, all combined tower and approach positions, at the beginning of a midshift. Weather had been moving through the area with gusty winds and precipitation in the area. I had one other aircraft on approach on another frequency. First in sequence Aircraft X checked on descending via the SADYL and immediately reported moderate turbulence. The radar depicted that weather may be better with a slight vector to the west, and such a vector would also provide the appropriate sequence to make Aircraft X follow the first aircraft.

I issued a clearance to the fix JIMMI as a vector for sequence, with a descent to 9000 feet. The instruction was read back correctly and I observed Aircraft X turn left toward the fix and continued descending. I obtained some additional information from Aircraft X concerning the turbulence. At that point I went to the computer in the back of the room and logged on to the AISR website to enter a PIREP for the moderate turbulence. After successfully logging on, no more than 30 seconds, I walked back to the radar scope and observed Aircraft X descending through 8000 feet. I instructed them to climb to 9000 feet. The pilot replied they were descending to 6000 feet. I again instructed them to climb to 9000 feet and informed them that they were in a 9000 foot Minimum Vectoring Altitude Area (MVA). They began climbing and reached around 8400 feet before they crossed into a 7000 foot MVA. The 6000 altitude is the final altitude on the arrival, and I suspect they missed entering the new altitude into the FMS. A minute later they apologized for missing the altitude and said that it was due to workload in the cockpit as a result of the moderate turbulence. They landed without incident and I issued a BRASHER warning after they landed and informed them that I would need to file the associated paperwork.

The responsibility to enter the PIREP into AISR instead of transmitting it verbally to FSS resulted in my being away from the radar scope as the aircraft descended through their assigned altitude. I also did not use the "Low Altitude Alert" phraseology, but instead immediately issued the correct assigned altitude, as it felt quicker to avoid continued descent and it was the natural muscle-memory altitude instruction. In hindsight, the "Low Altitude Alert" phraseology may have resulted in the pilots not questioning the new altitude and beginning a climb sooner.

Return the responsibility of computer based PIREP entry to FSS to allow controllers and to focus on the operation.

Synopsis

A Controller working alone on a mid shift reported leaving their radar position to enter a PIREP in to a computer and did not notice an aircraft descending below its assigned altitude below the Minimum Vectoring Altitude.

ACN: 1425954 *(15 of 50)*

Time / Day

Date : 201702
Local Time Of Day : 1201-1800

Place

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

Environment

Flight Conditions : IMC
Weather Elements / Visibility : Rain
Weather Elements / Visibility : Fog
Weather Elements / Visibility : Turbulence
Weather Elements / Visibility.Visibility : 1
Light : Daylight
Ceiling.Single Value : 700

Aircraft

Reference : X
ATC / Advisory.CTAF : ZZZ
Aircraft Operator : Corporate
Make Model Name : King Air C90 E90
Crew Size.Number Of Crew : 1
Operating Under FAR Part : Part 91
Flight Plan : IFR
Mission : Passenger
Nav In Use : GPS
Flight Phase : Final Approach
Route In Use.Other
Airspace.Class G : ZZZ

Component : 1

Aircraft Component : Fuel Quantity-Pressure Indication
Aircraft Reference : X
Problem : Malfunctioning

Component : 2

Aircraft Component : Airspeed Indicator
Aircraft Reference : X
Problem : Failed

Component : 3

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

Component : 4

Aircraft Component : Air/Ground Communication
Aircraft Reference : X
Problem : Failed

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 : Flight Instructor
Qualification.Flight Crew : Flight Engineer
Qualification.Flight Crew : Instrument
Qualification.Flight Crew : Air Transport Pilot (ATP)
Qualification.Flight Crew : Multiengine
Experience.Flight Crew.Total : 26500
Experience.Flight Crew.Last 90 Days : 128
Experience.Flight Crew.Type : 3243
ASRS Report Number.Accession Number : 1425954
Human Factors : Situational Awareness
Analyst Callback : Attempted

Events

Anomaly.Aircraft Equipment Problem : Less Severe
Anomaly.Inflight Event / Encounter : CFTT / CFIT
Detector.Person : Flight Crew
Were Passengers Involved In Event : N
When Detected : In-flight
Result.Flight Crew : Diverted
Result.Flight Crew : Landed in Emergency Condition
Result.Flight Crew : Executed Go Around / Missed Approach
Result.Aircraft : Aircraft Damaged

Assessments

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

Narrative: 1

We departed for a flight to ZZZ with one passenger on board. I departed with 2200 pounds of fuel. Enroute, about 25 minutes airborne, I had the right low fuel pressure light come on. I followed the procedure to see if the light would go out. It went out and then came on dim for the remainder of the flight. All gauges were normal and no indication that the engine was affected in its performance.

On our descent to ZZZ there was another aircraft on the RNAV approach to Runway XX at ZZZ. I talked with him on Unicom after he had landed and he reported the weather was at minimums, but OK. I elected to make the RNAV approach to Runway XX. Over the final approach fix at 2300 feet, I configured the aircraft for landing. We arrived at the MDA

which was 800 feet. The autopilot was activated and I was monitoring outside for visual clues and scanning the instruments as well. After about 20 seconds I started seeing ground with about 3/4 of a mile forward visibility. I started a slow descent looking for the runway and that was when the aircraft apparently struck the top of what I thought to be a tree branch. I immediately executed a go-around and once I was at a safe altitude, I started to assess what had happened, what was working and my next plan. Both engines were running and I raised the gear. Once airspeed allowed I raised the flaps to 0. I knew that ZZZ1 was VFR so I did a quick calculation and determined that I had enough fuel to go to ZZZ1. My airspeed indicator was inoperative and both navigation radios and communication radios were inoperative.

I turned toward ZZZ1. The GPS was intermittent. I climbed to 7000 feet enroute. I could see damage on the right wing. I landed at ZZZ1 on Runway XX with light gun signals from the Tower.

Synopsis

Beechcraft King Air F90 pilot reported that while descending from an RNAV Approach MDA he struck a tree branch, executed a go-around, and diverted to a field that was VFR. The pilot observed damage to the right wing.

ACN: 1425401 *(16 of 50)*

Time / Day

Date : 201702
Local Time Of Day : 0601-1200

Place

Locale Reference.Airport : SFO.Airport
State Reference : CA
Altitude.AGL.Single Value : 1000

Environment

Flight Conditions : IMC
Light : Daylight
RVR.Single Value : 4000

Aircraft

Reference : X
ATC / Advisory.Tower : SFO
Aircraft Operator : Air Carrier
Make Model Name : B767 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.Other
Airspace.Class B : SFO

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 : Air Transport Pilot (ATP)
Experience.Flight Crew.Total : 10000
ASRS Report Number.Accession Number : 1425401
Human Factors : Situational Awareness

Events

Anomaly.Inflight Event / Encounter : CFTT / CFIT
Detector.Automation : Aircraft Terrain Warning
When Detected : In-flight
Result.Flight Crew : Executed Go Around / Missed Approach
Result.Flight Crew : Took Evasive Action

Assessments

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

Narrative: 1

Flying the RNAV GPS Runway 10L. Stable in LNAV and VNAV PATH. Passing the FAF, gear down Flaps 20, we got a "TERRAIN TERRAIN PULL UP" (only once). Started a GPWS recovery and quickly changed to a go around. Lowest GPWS altitude called out was 1000 ft. A ridge line does pass across the FAF landing Runway 19. Weather on ATIS was 4000+ so we didn't expect to be in the WX at the FAF. It was 4000+ on the ILS to 19. Tower instructed speed 170 to the FAF. With 20+ kts of headwind I don't see that as a factor.

Aircraft was on course and on path, my guess is at 20 flaps we are not at a landing flap so the GPWS looks farther out. Add a note to the 10-7 page to be at landing flaps before the ridge line. Runway 10 is rarely used at SFO.

Synopsis

B767 First Officer reported executing a go-around after receiving a GPWS terrain warning on an RNAV GPS approach to SFO Runway 10L.

ACN: 1425114 *(17 of 50)*

Time / Day

Date : 201702
Local Time Of Day : 1801-2400

Place

Locale Reference.ATC Facility : BTV.TRACON
State Reference : VT
Altitude.MSL.Single Value : 7000

Environment

Weather Elements / Visibility : Icing
Light : Night

Aircraft

Reference : X
ATC / Advisory.TRACON : BTV
Aircraft Operator : Personal
Make Model Name : Small Aircraft, High Wing, 1 Eng, Fixed Gear
Crew Size.Number Of Crew : 1
Operating Under FAR Part : Part 91
Flight Plan : IFR
Mission : Personal
Flight Phase : Descent
Airspace.Class E : BTV

Person

Reference : 1
Location Of Person.Facility : BTV.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) : 4
ASRS Report Number.Accession Number : 1425114
Human Factors : Distraction
Human Factors : Situational Awareness
Human Factors : Troubleshooting
Human Factors : Confusion

Events

Anomaly.Airspace Violation : All Types
Anomaly.ATC Issue : All Types
Anomaly.Deviation - Altitude : Excursion From Assigned Altitude
Anomaly.Deviation - Track / Heading : All Types
Anomaly.Inflight Event / Encounter : Weather / Turbulence
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

Aircraft X entered BTV radar east airspace from the west at 9000 ft. I informed the pilot to advise me of any approach request he might have and to descend and maintain 7000. Aircraft X requested lower altitude after a few minutes due to light ice accumulating. I then gave him the MVA altitude of 6500. I noticed he was not able to maintain his altitude and I gave him a further descent and a vector away from terrain depicted on the EOVM (Emergency Obstruction Video Map). I then noticed Aircraft X was turning towards terrain northwest bound and instructed him to fly northeast bound on a heading of 040 and asked "how he was doing". Aircraft X was able to get below the clouds and out of icing conditions away from terrain shortly thereafter.

Synopsis

BTV TRACON Controller reported that an aircraft being vectored at the MVA was not able to maintain altitude due to icing.

ACN: 1425068 *(18 of 50)*

Time / Day

Date : 201702
Local Time Of Day : 1201-1800

Place

Locale Reference.ATC Facility : S56.TRACON
State Reference : UT
Altitude.MSL.Single Value : 14000

Environment

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

Aircraft

Reference : X
ATC / Advisory.TRACON : S56
Aircraft Operator : Air Taxi
Make Model Name : Light Transport
Crew Size.Number Of Crew : 2
Operating Under FAR Part : Part 135
Flight Plan : IFR
Flight Phase : Cruise
Route In Use : Vectors
Airspace.Class E : S56

Person

Reference : 1
Location Of Person.Facility : S56.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) : 15
ASRS Report Number.Accession Number : 1425068
Human Factors : Situational Awareness

Events

Anomaly.ATC Issue : All Types
Anomaly.Deviation - Altitude : Excursion From Assigned Altitude
Anomaly.Inflight Event / Encounter : CFTT / CFIT
Detector.Person : Flight Crew
Detector.Person : Air Traffic Control
When Detected : In-flight
Result.Flight Crew : Requested ATC Assistance / Clarification
Result.Air Traffic Control : Issued New Clearance
Result.Air Traffic Control : Provided Assistance

Assessments

Contributing Factors / Situations : Airspace Structure
Contributing Factors / Situations : Company Policy
Contributing Factors / Situations : Weather
Primary Problem : Company Policy

Narrative: 1

ZLC called and requested approval for Aircraft X Direct OGD landing SLC at 16,000 feet. I approved it. They called back and said that Aircraft X was struggling to hold altitude and requested 12,000 feet. I stated that I would rather try 14,000 feet in case I had departures that I would have to take over terrain, but under the aircraft. I was aware of icing reports north of the area at 13,000 feet.

It took a while for me to establish communications with Aircraft X due to terrain. When I finally got him, he stated that he was having a hard time holding speed. I asked him if he was in icing. He stated that he was in "hard" icing. I descended him to 13,000 feet. He was still in icing. I descended him to 12,000 feet. The Minimum Vectoring Altitude (MVA) is 11,800 feet in that area. He was still in icing. He stated that he was no longer able to hold altitude. I vectored him towards a canyon using the emergency terrain obstruction map. He was observed below the MVA by about 400 feet. When he was over the canyon he stated that he was still in severe icing and turbulence. The MVA dropped to 11,000 feet so I descended him. I started to turn him towards the localizer for Runway 17. There was traffic converging at the same altitude going to Runway 16 Right. I coordinated with the controller handling that aircraft and then gave Aircraft X a heading to join and descended him as low as I could reference the terrain and shipped him to the Final sector.

I filled out a PIREP form and then handed it to the Controller in Charge (CIC). Just then, the Supervisor entered the room. I was not sure how to properly categorize "hard" icing. We had a discussion across the room with the Supervisor engaged. I told both the CIC and the supervisor that I did not know if the icing was Rime or Clear. I did not want to bother the pilot while he was trying to keep his aircraft in control with severe icing and turbulence. Within a minute, the supervisor walked over to me while I was on position and asked again what kind of icing it was. I stated "you've got to be kidding me!" I stated this because the Supervisor was standing right next to the CIC and was engaged in the conversation while it was discussed and I admitted that I did not get the information from the pilot. He then told me that If I was going to be like that, then I did not do my job. I told him that I didn't think it was a good idea to bother the pilot with such a matter when he was being vectored through a canyon and having trouble controlling his aircraft.

I was relieved and when I walked up to the desk, the Supervisor (who was not in the room when the incident happened and had not even asked me what happened), told me that I should've got the information in order to help the next pilot. I told him again of my position on the matter. The discussion started to get heated so I asked if I could go on break. He kept going on stating that I did not do my job. There was statements being made within the control room that we were being a distraction. I asked again if I could just go on break. He again engaged in a heated statement that I didn't do my job. I eventually convinced him that I needed to leave the room because we were being a distraction.

Synopsis

S56 Tracon Controller reported vectoring an aircraft encountering icing and unable to maintain altitude and airspeed into lower terrain and out of the conditions.

ACN: 1424295 *(19 of 50)*

Time / Day

Date : 201702
Local Time Of Day : 1201-1800

Place

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

Environment

Flight Conditions : IMC
Weather Elements / Visibility : Turbulence
Weather Elements / Visibility : Rain
Weather Elements / Visibility : Fog
Weather Elements / Visibility.Visibility : 1
Light : Daylight
Ceiling.Single Value : 700

Aircraft

Reference : X
ATC / Advisory.CTAF : ZZZ
Aircraft Operator : Corporate
Make Model Name : King Air C90 E90
Crew Size.Number Of Crew : 1
Operating Under FAR Part : Part 91
Flight Plan : IFR
Mission : Passenger
Flight Phase : Initial Approach
Airspace.Class G : ZZZ

Person

Reference : 1
Location Of Person.Aircraft : X
Location In Aircraft : Flight Deck
Reporter Organization : Corporate
Function.Flight Crew : Single Pilot
Qualification.Flight Crew : Flight Engineer
Qualification.Flight Crew : Air Transport Pilot (ATP)
Qualification.Flight Crew : Flight Instructor
Qualification.Flight Crew : Multiengine
Qualification.Flight Crew : Instrument
Experience.Flight Crew.Total : 26500
Experience.Flight Crew.Last 90 Days : 128
Experience.Flight Crew.Type : 3243
ASRS Report Number.Accession Number : 1424295
Human Factors : Situational Awareness

Events

Anomaly.Deviation - Altitude : Excursion From Assigned Altitude
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 : Took Evasive Action
Result.Flight Crew : Diverted
Result.Aircraft : Aircraft Damaged

Assessments

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

Narrative: 1

I departed with 2200 pounds of fuel. I was cleared to 17,000 feet. Enroute, about 25 minutes airborne, I had the right low fuel pressure light come on. I followed the procedure to see if the light would go out. It went out and then came on dim for the remainder of the flight. All gauges were normal and no indication that the engine was affected in its performance. On our descent there was another aircraft on the approach. I talked with him on Unicom after he had landed and he reported the weather was at minimums, but OK. I elected to make the approach. Over the final approach fix at 2300 feet, I configured the aircraft for landing. We arrived at the MDA which was 800 feet. The autopilot was activated and I was monitoring outside for visual clues and scanning the instruments as well. After about 20 seconds I started seeing ground and about 3/4th of a mile forward visibility.

I started a slow descent looking for the runway and that was when the aircraft apparently struck the top of what I thought to be a tree branch. I immediately executed a go-around and once I was at a safe altitude, I started to assess what had happened, what was working and my next plan. Both engines were running [so I] raised the gear. Once airspeed allowed I raise the flaps to 0. I knew that [a nearby alternate] was VFR so I did a quick calculation and determined that I had enough fuel to go [there]. My airspeed indicator was inoperative and both navigation radios and communication radios were inoperative. I climbed to 7000 feet enroute. I could see damage on the right wing. I landed with light gun signals from the tower.

Synopsis

BE90 pilot reported diverting to a VFR alternate after incurring aircraft damage when he struck a tree on an IFR approach while descending below the MDA without the runway environment in sight.

ACN: 1424221 *(20 of 50)*

Time / Day

Date : 201702
Local Time Of Day : 1201-1800

Place

Locale Reference.Airport : ASE.Airport
State Reference : CO
Altitude.MSL.Single Value : 12600

Environment

Flight Conditions : Marginal
Weather Elements / Visibility : Fog
Light : Daylight

Aircraft

Reference : X
ATC / Advisory.TRACON : ASE
Make Model Name : Commercial Fixed Wing
Crew Size.Number Of Crew : 2
Operating Under FAR Part : Part 121
Flight Plan : IFR
Mission : Passenger
Nav In Use.Localizer/Glideslope/ILS : Runway 15
Flight Phase : Initial Approach
Airspace.Class E : ASE

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)
ASRS Report Number.Accession Number : 1424221
Human Factors : Fatigue
Human Factors : Situational Awareness
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 Not Flying
Function.Flight Crew : First Officer
Qualification.Flight Crew : Air Transport Pilot (ATP)
ASRS Report Number.Accession Number : 1424214

Human Factors : Situational Awareness
Human Factors : Training / Qualification

Events

Anomaly.Deviation - Altitude : Overshoot
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 : Returned To Clearance
Result.Flight Crew : Became Reoriented
Result.Air Traffic Control : Issued Advisory / Alert

Assessments

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

Narrative: 1

We had just went missed into ASE and we were in the process of asking for another approach. We were on the published missed and ATC had told us to expect the approach over LIFTT. I was trying to get the FMS set back up for the approach. The FO had been really behind on the first approach and the missed. I decided to take control over the FMS. In the process the FO had already started to execute some changes and the aircraft had started a turn. I told the FO to get a vector. Knowing that ASE airspace is rather tight with EGE I knew we needed to be quick. I reloaded the FMS and then tried to clean up the box as ATC told us to turn direct LIFTT and cleared for the approach. No altitude or heading was given. Things would not cleaned up correctly and I just went to green needles to intercept the LOC.

At that point the FO noticed the FMS was on page 2 and went ahead and cleaned up the FMS. The LOC captured and were at 14,200. At this point I looked up to make sure we were headed in the correct direction and the entire valley was now covered in fog. I was a little disoriented as only 5 mins earlier we could see airport with a few low level clouds. I noticed a few key terrain features and knew we were headed in the correct direction. The FO was still a little task saturated and I set a lower altitude to start down and I begin to call for flaps and get the aircraft configured for landing. In the process I confused where we were on the approach and set 12,300 instead of 13,600 to cross LIFTT. About 3 miles from LIFTT ATC gave a low alt alert and told us cross LIFTT at 13,000. I immediately turned off the autopilot and climbed the aircraft back to 13,000. At that point we were at 12,600.

Going missed in ASE is a complex procedure and trying to get the FMS reprogrammed for another approach is not easy. ASE has very limited airspace and this really brings down the time you have to properly set things up. The FO is rather [junior] and the first approach he was rather behind and that led me to have to worry about more things and become task saturated. When we left the ramp, I noticed a strange MX issue with the flaps/slats indicator and we had to pull back into the ramp and have MX reset a few things. After the MX issue was taken care of we left only to be told that we had a ground stop into ASE. Was waited 45 mins to depart. I had also not flown in almost 3 weeks due to not being used on reserve and days off. I had also not slept well the night before and felt a little tired. I should have slowed things down to help bring the FO back into the game and

given us more time to set up and brief the approach again. I know ASE pretty well and I feel proficient flying in there. I was rushed with the airspace and I should have asked for more vectors for more time. I should have transferred the controls to the FO while I took care of the FMS and briefed the approach.

Narrative: 2

We had already experienced a number of issues on this flight. The slats were MELed for half speed. During taxi, we had an issue relating to proper slat position indication which required a maintenance troubleshoot. After the problem was resolved, we departed for Aspen. Conditions in Aspen were marginal with many aircraft going missed, requiring multiple approach attempts and in some cases diversions. Aspen was calling above minimums with good visibility however they were experiencing intermittent low clouds/fog. Prior to departure we briefed the approach/missed approach/balked landing procedures and discussed what we would do in the event of a missed. We had enough fuel for at least two approach attempts if we deemed it safe. We shot the LOC DME 15 approach, we had the runway in sight at approximately LIFTT but we could see a cloud on the approach end of the runway. Unfortunately, the cloud was exactly over CEYAG at the MDA which required a missed approach. While tracking outbound on the IPKN to LINDZ we told Aspen approach that we would like to try again. We were told to expect the LOC DME 15 from AJAXX. This required a modification of our previous approach in order to not have to completely reload the approach and all the intermediate fixes/altitudes.

We asked and were given a vector so that we could accomplish the task and the captain began to manipulate the FMS. As he was working on the changes, approach gave us a base turn and asked to keep it tight. This caused the captain to become task saturated. I asked if I could manipulate the FMS and free him to focus on flying the aircraft to which he agreed. While I was reloading the approach the controller cleared us direct LIFTT and for the LOC DME 15. I read back the clearance however in my distraction I did not notice if he gave us a crossing altitude at LIFTT nor did I read one back. I was able to execute the direct to LIFTT and returned to monitoring our progress. We were VMC in a descent and almost at LIFTT when the controller instructed us to maintain 13000 until crossing LIFTT. At that time, I looked and saw that we were at 12,600. We began to correct the altitude when the controller gave as a low altitude alert. We were VMC with adequate terrain separation, we corrected and continued the approach. Unfortunately the fog bank had completely recovered the airport and surrounding area. We went missed again and diverted.

It was a challenging day at a very challenging airport. We allowed ourselves to be rushed us into a second attempt at an approach without enough time to adequately prepare. In the rush, PF attempted to manipulate the FMS during a critical phase of flight and lost situational awareness. When the PM took over FMS load responsibilities, he was rushed and also lost situational awareness. While the PM was loading the FMS, the PF mistakenly started a descent for 12,300, the published altitude after LIFTT, without making proper challenge/response of altitude selection. As a result, the PM was unaware of the selected altitude change. To avoid recurrence, the flight crew need to follow SOP guidance, requiring PM to make all FMS changes during critical phases of flight, and requiring the PF to confirm all altitude changes in Alt Pre select with the PM. Above all, the crew must be more assertive in communicating with ATC their need to set up between approaches with such tight geographic and airspace constraints.

Synopsis

Air carrier flight crew reported they received a low altitude alert from ATC on approach into ASE citing workload, weather, and situational awareness as contributing.

ACN: 1423709 *(21 of 50)*

Time / Day

Date : 201702
Local Time Of Day : 1801-2400

Place

Locale Reference.Airport : AVP.Airport
State Reference : PA
Altitude.MSL.Single Value : 3100

Environment

Flight Conditions : VMC

Aircraft

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

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)
ASRS Report Number.Accession Number : 1423709

Events

Anomaly.Deviation - Procedural : Published Material / Policy
Anomaly.Inflight Event / Encounter : CFTT / CFIT
Detector.Automation : Aircraft Terrain Warning
When Detected : In-flight

Assessments

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

Narrative: 1

On the downwind leg for runway 22 in AVP, the First Officer (FO) reported the field in sight and ATC cleared us for the visual approach. ATC advised us of the ridgeline that parallels

the downwind leg. I selected 2800 ft and we began a gradual descent from 4000 ft while maintaining visual separation from the terrain and towers. We delayed our base turn to align the aircraft with a valley in the ridge outside of the FAF. On base, at approximately 3100 ft, we received an aural terrain warning. I executed an escape maneuver and climbed to 3700 ft. The warning subsided and we continued the approach hand flown to a normal landing.

Synopsis

Air carrier flight crew reported on visual approach to Runway 22 at AVP they received a terrain warning while turning a left base.

ACN: 1423516 *(22 of 50)*

Time / Day

Date : 201702
Local Time Of Day : 1201-1800

Place

Locale Reference.Airport : AVP.Airport
State Reference : PA
Altitude.MSL.Single Value : 2800

Environment

Flight Conditions : VMC
Light : Daylight

Aircraft

Reference : X
ATC / Advisory.TRACON : AVP
Aircraft Operator : Air Carrier
Make Model Name : Medium Large Transport
Crew Size.Number Of Crew : 2
Operating Under FAR Part : Part 121
Flight Plan : IFR
Mission : Passenger
Nav In Use : FMS Or FMC
Nav In Use.Localizer/Glideslope/ILS : Runway 22
Flight Phase : Initial Approach
Route In Use : Visual Approach
Airspace.Class D : AVP

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)
ASRS Report Number.Accession Number : 1423516

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
ASRS Report Number.Accession Number : 1423517

Events

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
Contributing Factors / Situations : Procedure
Primary Problem : Human Factors

Narrative: 1

Cleared for Visual Approach Left Downwind RW 22 AVP GPWS Terrain notification at 2800 feet MSL. Approximately, 45 degrees from the approach end of RW 22 in a 1 1/2 mile downwind.

ATC cleared us for the visual approach left downwind runway 22. The crew had briefed the terrain, airport, and the visual approach RW 22 AVP to be "backed up" by the ILS RW 22 AVP. We also briefed RW 22 is right traffic. I am aware of the terrain to the south of AVP and noted on the chart the highest obstacle we would encounter in the downwind. I planned on turning base to RW 22 just outside the final approach fix. We also communicated that intention to tower as we were communicating with him and already cleared to land. As the terrain is hilly or "mountainous" my plan was to descend form 4000 feet MSL to 2800 feet (the altitude of GS intercept at the FAF) in the downwind and turn the base while over a valley that placed me abeam the FAF. We were configured flaps 1 approximately 200 KIAS. As I initiated the turn to base we received a GPWS warning "terrain, pull up". I dis-engaged the auto pilot and added power and climbed to 3000 feet MSL. The GPWS annunciation extinguished and the flight continued on the approach and landing without further incident.

[Recommendations:]
1. Insist on the right downwind RW 22 AVP to keep clear of the terrain to the south of AVP.

2. Stay at 3500 feet MSL until established on the base leg RW 22 AVP and clear of terrain, then descend to intercept the final approach course well outside of the FAF. This would necessitate communication and tower approval.

3. Simulator training focusing on visual approaches into AVP.

Narrative: 2

[Report narrative contained no additional information.]

Synopsis

Air carrier flight crew reported on visual approach to Runway 22 at AVP they received a terrain warning while turning a left base.

ACN: 1423493 *(23 of 50)*

Time / Day

Date : 201702
Local Time Of Day : 0601-1200

Place

Locale Reference.ATC Facility : HCF.TRACON
State Reference : HI
Altitude.MSL.Single Value : 400

Environment

Light : Daylight

Aircraft

Reference : X
ATC / Advisory.TRACON : HCF
Aircraft Operator : Military
Make Model Name : Helicopter
Crew Size.Number Of Crew : 2
Operating Under FAR Part : Part 91
Flight Plan : IFR
Mission : Training
Flight Phase : Final Approach
Airspace.Class B : HNL

Person

Reference : 1
Location Of Person.Facility : HCF.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) : 23
ASRS Report Number.Accession Number : 1423493
Human Factors : Situational Awareness
Human Factors : Workload
Human Factors : Confusion

Events

Anomaly.ATC Issue : All Types
Anomaly.Deviation - Altitude : Excursion From Assigned Altitude
Anomaly.Deviation - Procedural : Published Material / Policy
Anomaly.Inflight Event / Encounter : CFTT / CFIT
Detector.Person : Air Traffic Control
When Detected : In-flight
Result.Air Traffic Control : Issued Advisory / Alert

Assessments

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

Contributing Factors / Situations : Procedure
Primary Problem : Procedure

Narrative: 1

The aircraft descended to 400 feet prior to the FAF which has crossing restriction of 1500 feet. I noticed the descent then tried to contact the aircraft on my frequency, guard frequency, and through the Tower. The pilot finally contacted Tower. I don't remember if I gave him his position, reference a point on the approach or not. Sometimes I'll turn aircraft onto final, then give them a position when they are closer to the fix before I switch them.

I did feel a little pressured. Sectors were combined and we were on an unusual runway configuration.

Synopsis

HCF TRACON Controller observed an aircraft descend below the published FAF altitude.

ACN: 1423480 *(24 of 50)*

Time / Day

Date : 201702
Local Time Of Day : 0601-1200

Place

Locale Reference.ATC Facility : SAT.TRACON
State Reference : TX
Altitude.MSL.Single Value : 3500

Environment

Flight Conditions : Marginal
Weather Elements / Visibility : Cloudy
Light : Daylight
Ceiling.Single Value : 1000

Aircraft : 1

Reference : X
ATC / Advisory.TRACON : SAT
Aircraft Operator : Personal
Make Model Name : Small Aircraft, High Wing, 1 Eng, Fixed Gear
Crew Size.Number Of Crew : 1
Operating Under FAR Part : Part 91
Flight Plan : IFR
Mission : Personal
Nav In Use.Localizer/Glideslope/ILS : Runway 4
Flight Phase : Initial Approach
Airspace.Class C : SAT

Aircraft : 2

Reference : Y
ATC / Advisory.TRACON : SAT
Aircraft Operator : Corporate
Make Model Name : Small Transport, Low Wing, 2 Turboprop Eng
Crew Size.Number Of Crew : 2
Operating Under FAR Part : Part 91
Flight Plan : IFR
Mission : Passenger
Nav In Use.Localizer/Glideslope/ILS : Runway 4
Flight Phase : Initial Approach
Airspace.Class C : SAT

Person

Reference : 1
Location Of Person.Facility : SAT.TRACON
Reporter Organization : Government
Function.Air Traffic Control : Approach
Function.Air Traffic Control : Instructor
Qualification.Air Traffic Control : Fully Certified
Experience.Air Traffic Control.Time Certified In Pos 1 (yrs) : 3

ASRS Report Number.Accession Number : 1423480
Human Factors : Situational Awareness
Human Factors : Training / Qualification
Human Factors : Distraction

Events

Anomaly.ATC Issue : All Types
Anomaly.Conflict : Airborne Conflict
Anomaly.Deviation - Track / Heading : All Types
Anomaly.Deviation - Procedural : Clearance
Anomaly.Inflight Event / Encounter : CFTT / CFIT
Detector.Person : Air Traffic Control
When Detected : In-flight
Result.Flight Crew : Executed Go Around / Missed Approach
Result.Flight Crew : Requested ATC Assistance / Clarification
Result.Air Traffic Control : Provided Assistance
Result.Air Traffic Control : Issued New Clearance
Result.Air Traffic Control : Separated Traffic

Assessments

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

Narrative: 1

I was the Instructor during the incident. Aircraft X was vectored for an ILS approach. The ceiling was about 900 or 1000 feet overcast. My trainee told the aircraft to intercept the localizer at RESOC at 3500 feet and was cleared for the approach. Aircraft Y was sequenced behind Aircraft X on the localizer. When Aircraft X got to RESOC he turned an unexpected direction as if he was doing some sort of procedure turn. That turn was back up the localizer toward Aircraft Y who was around the same altitude. My trainee started to transmit, when I took over to recover from the imminent loss of separation. Aircraft X was clearly confused and slow to respond if at all. He turned on a heading to diverge as Aircraft Y was climbed to avoid.

After separation was reestablished, my first thought was to get Aircraft X which was having difficulty on the ground as soon as possible. The second attempt almost created another loss of separation with traffic on the downwind. Luckily we were ready for that one. We offered Aircraft X an option to fly to an airport where the weather was VFR that was the closest airport where we could legally vector for a Visual Approach. I believe it was the 4th attempt that the aircraft finally made it into the airport, but not without extensive assistance. Another controller was our relief and did a great job of talking to the pilot about required altitudes on final. After coordination, he kept the pilot on the approach control frequency and cleared him to land.

I allowed my trainee to take over again, but unfortunately, during the concentration on this particular aircraft, he left Aircraft Y on the downwind at SKF at 2500 feet. The 3000 foot Minimum Vectoring Altitude (MVA) was violated prior to climbing him to the correct altitude. No other incidents occurred. We climbed the aircraft above the layer of clouds and delayed him after his second attempt. Knowing what I know now, I would have

delayed him after the first attempt. I should have been more attentive to Aircraft Y to prevent the MVA violation while I was giving specific info to the supervisor.

Synopsis

SAT TRACON Controller, distracted assisting an aircraft having difficulty navigating in inclement weather, allowed an aircraft on downwind vectors to fly below their MVA.

ACN: 1423214 *(25 of 50)*

Time / Day

Date : 201702
Local Time Of Day : 0601-1200

Place

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

Environment

Flight Conditions : Mixed
Weather Elements / Visibility.Visibility : 10
Light : Daylight
Ceiling.Single Value : 1300

Aircraft

Reference : X
ATC / Advisory.TRACON : ZZZ
Aircraft Operator : Air Carrier
Make Model Name : B737 Next Generation Undifferentiated
Crew Size.Number Of Crew : 2
Operating Under FAR Part : Part 121
Flight Plan : IFR
Mission : Passenger
Flight Phase : Final Approach
Airspace.Class B : ZZZ

Person : 1

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 : Air Transport Pilot (ATP)
ASRS Report Number.Accession Number : 1423214
Human Factors : Distraction
Human Factors : Situational Awareness
Human Factors : Time Pressure
Human Factors : Workload
Human Factors : Communication Breakdown
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 Flying
Qualification.Flight Crew : Air Transport Pilot (ATP)
ASRS Report Number.Accession Number : 1423617
Human Factors : Communication Breakdown
Human Factors : Distraction
Human Factors : Human-Machine Interface
Human Factors : Situational Awareness
Human Factors : Workload
Human Factors : Confusion
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 : Air Traffic Control
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
Contributing Factors / Situations : Procedure
Contributing Factors / Situations : Weather
Primary Problem : Human Factors

Narrative: 1

Transitioning from the RNAV Arrival we were held high by Approach Control and transitioned to the approach higher and faster than normal. The PF had briefed the LOC with the LNAV/VNAV shadowing to a visual approach landing. At the FAF, the PF continued to configure the aircraft and started a descent that was steeper than normal. We were still in the clouds at the FAF, but broke out of the weather quickly and had the field in sight. After stopping the initial descent, and leveling off, the Tower passed a low altitude alert.

PM acknowledged the alert and the PF continued inbound in level flight. In an attempt to make everything look right with the LNAV/VNAV approach, the PF focused on the VNAV and became distracted with the automation. Configuration calls slowed down and communication between PF and PM declined. When we got an automated too low flaps call, the PF called for and initiated an uneventful go-around and subsequent uneventful approach and landing.

Narrative: 2

In the process of attempting to engage the VNAV from a somewhat close in LOC to visual (1100 broken layer), flaps were set at 25 below 1000 AGL. Go-around was subsequently initiated.

Less focus on VNAV engagement, reverting to MCP mode (vertical speed) to increase situational awareness in this situation.

Synopsis

B737 flight crew reported an ATC low altitude alert and unstabilized approach that resulted in a go-around.

ACN: 1423025 *(26 of 50)*

Time / Day

Date : 201702
Local Time Of Day : 0601-1200

Place

Locale Reference.Airport : ROA.Airport
State Reference : VA

Environment

Flight Conditions : VMC

Aircraft

Reference : X
ATC / Advisory.Tower : ROA
Aircraft Operator : Air Carrier
Make Model Name : Commercial Fixed Wing
Crew Size.Number Of Crew : 2
Operating Under FAR Part : Part 121
Flight Plan : IFR
Mission : Passenger
Flight Phase : Initial Approach
Route In Use : Visual Approach

Person

Reference : 1
Location Of Person.Aircraft : X
Location In Aircraft : Flight Deck
Reporter Organization : Air Carrier
Function.Flight Crew : Captain
Qualification.Flight Crew : Air Transport Pilot (ATP)
ASRS Report Number.Accession Number : 1423025

Events

Anomaly.Aircraft Equipment Problem : Less Severe
Anomaly.Inflight Event / Encounter : Weather / Turbulence
Anomaly.Inflight Event / Encounter : CFTT / CFIT
Detector.Person : Flight Crew
When Detected : In-flight

Assessments

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

Narrative: 1

Coming into ROA, we were cleared for the visual for Runway 24. Our route of flight into ROA that day had us coming right over some of the hills and mountains that are around ROA. The aircraft we were flying had a number of MELs, one being an inoperative Engine

Control Unit (ECU). On our descent, we were observing the engine indications to make sure the engine was operating normally and making sure we understood what needed to be done with the engine with the inoperative ECU once we landed. During all of this time, we were also experiencing wind/turbulence, and got a "Caution, Terrain" annunciation from the EGPWS. We promptly leveled off until we were closer to the airport, where we continued our approach and landing.

It was determined that the event occurred when we got the "Caution, Terrain" annunciation. We both continued to look outside and made sure we were well clear of any obstructions and terrain.

The event could have possibly occurred because on our descent, we were thoroughly making sure the engine with the inoperative ECU was operating normally and I was making sure my First Officer understood the procedures we would accomplish with that engine once we landed. However, we both continued to look outside to make sure we remained clear of the terrain and obstructions the whole time.

Once the event occurred, we promptly leveled off and made sure we were more than adequately clear of all terrain and obstructions until we got closer to the airport, where we continued our approach and landing.

The event could possibly be avoided by paying more attention to flying the aircraft while on descent. Even though we briefed the MEL and procedures concerning the inoperative ECU in cruise flight, I felt it was important to make sure that my First Officer understood what the procedures were as we got close to landing. Also, I wanted to make sure that all the engine indications and instruments were normal for the engine with the inoperative ECU. Again, it was a visual approach and the whole time we both were looking outside and completely aware of our position/altitude and the terrain and obstructions around us.

Synopsis

Air carrier Captain reported a terrain warning while approaching ROA on a daylight visual approach.

ACN: 1422930 *(27 of 50)*

Time / Day

Date : 201702
Local Time Of Day : 1201-1800

Place

Locale Reference.Airport : BWI.Airport
State Reference : MD
Altitude.MSL.Single Value : 2100

Environment

Light : Daylight

Aircraft

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

Component

Aircraft Component : GPWS
Aircraft Reference : X
Problem : Malfunctioning

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 : First Officer
Qualification.Flight Crew : Air Transport Pilot (ATP)
Experience.Flight Crew.Last 90 Days : 174
ASRS Report Number.Accession Number : 1422930
Human Factors : Situational Awareness

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 : Captain
Qualification.Flight Crew : Air Transport Pilot (ATP)
Experience.Flight Crew.Last 90 Days : 199
ASRS Report Number.Accession Number : 1422937
Human Factors : Situational Awareness

Events

Anomaly.Aircraft Equipment Problem : Less Severe
Anomaly.Inflight Event / Encounter : CFTT / CFIT
Detector.Person : Flight Crew
Detector.Person : Air Traffic Control
When Detected : In-flight
Result.Flight Crew : Took Evasive Action
Result.Flight Crew : Became Reoriented
Result.Air Traffic Control : Issued Advisory / Alert

Assessments

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

Narrative: 1

I was flying the leg into BWI which was operating on Runway 15R. We were cleared to 2500 MSL, called the airport and in sight and were cleared [for] a visual approach by Potomac Approach. We were also directed to switch to Tower frequency. I was approaching from the east on a vector to final which intercepted between BMORE and KEVVN. We were cleared the visual when the aircraft was at about 4000 MSL. We were at about 230 knots descending with flaps 5.

Once cleared the visual I set the aircraft up to go direct to KEVVN and selected 2100 in the altitude window. I announced and verified these changes with the Captain, then executed. As we switched to Tower the Captain said "Those are big towers." I was looking at the runway and changed my view in front of the aircraft. I saw 2 towers I believed to be the 1504 and 1437 ft towers depicted on the ILS 15R chart. We had a quick discussion. There were no GPWS warnings and nothing showing yellow on the terrain display. I made the comment "I'm surprised there was no terrain caution or yellow." I adjusted the path of the aircraft to intercept final inside KEVVN keeping us well clear of the towers vertically and horizontally.

The aircraft did not leave 2100 MSL until we were intercepting glide path and final course past the towers. As we had the discussion about the towers, BWI Tower issued a low altitude alert and the altimeter of 29.79 (which had been set in the approach check). We completed a normal visual approach and landing with no incident. [Later] I researched the obstacles on the 15R Approach chart. At no time were we closer than 500 feet vertically of the towers. We did not fly over them and remained clear. The Captain became concerned after the flight and called the Operations Center. I am surprised the terrain database did not at least turn yellow on the display.

Narrative: 2

We were cleared for the visual approach Runway 15R. We were between the fix BMORE and KEVVN and at 2300. I felt we were going too close to the tower at 1504 feet with the

arrow on top. We climbed back a few hundred feet and passed the tower on the right side of the aircraft. The EGPWS never went off and we did not have a yellow warning on our navigation display. BWI Tower got a low altitude alert.

Synopsis

B737 flight crew reported receiving a low altitude alert from BWI Tower on the visual approach to Runway 15R, but did not receive an EGPWS warning.

ACN: 1422871 *(28 of 50)*

Time / Day

Date : 201702
Local Time Of Day : 0601-1200

Place

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

Environment

Flight Conditions : IMC
Weather Elements / Visibility : Thunderstorm
Weather Elements / Visibility : Rain
Weather Elements / Visibility : Turbulence
Weather Elements / Visibility : Windshear
Weather Elements / Visibility.Visibility : .5
Light : Daylight
Ceiling.Single Value : 1000

Aircraft

Reference : X
ATC / Advisory.Tower : ZZZ
Aircraft Operator : FBO
Make Model Name : Skylane 182/RG Turbo Skylane/RG
Crew Size.Number Of Crew : 1
Operating Under FAR Part : Part 91
Flight Plan : IFR
Mission : Personal
Flight Phase : Final Approach
Route In Use.Other
Airspace.Class D : ZZZ

Component

Aircraft Component : Indicating and Warning - Flight & Navigation Systems
Aircraft Reference : X
Problem : Malfunctioning

Person

Reference : 1
Location Of Person.Aircraft : X
Location In Aircraft : Flight Deck
Reporter Organization : FBO
Function.Flight Crew : Pilot Flying
Function.Flight Crew : Single Pilot
Qualification.Flight Crew : Air Transport Pilot (ATP)
Qualification.Flight Crew : Multiengine
Qualification.Flight Crew : Instrument
Experience.Flight Crew.Last 90 Days : 8
Experience.Flight Crew.Type : 118

ASRS Report Number.Accession Number : 1422871
Human Factors : Distraction
Human Factors : Situational Awareness
Human Factors : Workload
Analyst Callback : Attempted

Events

Anomaly.Aircraft Equipment Problem : Less Severe
Anomaly.Deviation - Procedural : Clearance
Anomaly.Deviation - Procedural : Published Material / Policy
Anomaly.Inflight Event / Encounter : CFTT / CFIT
Detector.Person : Flight Crew
Were Passengers Involved In Event : N
When Detected : In-flight
Result.Flight Crew : Became Reoriented
Result.Flight Crew : Overcame Equipment Problem

Assessments

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

Narrative: 1

Inadvertent controlled flight towards terrain. During vectors to the final approach course, this light GA aircraft (C182) was experiencing moderate to heavy turbulence and the pilot was working very hard to keep the aircraft on course and on altitude. The turbulence continued past the Final Approach Fix and upon breaking out of the clouds at 1000 ft MSL, the PIC noticed that he was below the visual glideslope indications from the field but was still showing on glideslope on the aircraft navigation system. It was at this point that the pilot recognized that the vertical glideslope indicator inop flag was now displayed, but the PIC had not noticed a flag previously on the approach. It is likely that the vertical glideslope had stopped functioning at some point during the approach and the pilot's scan had broken down due to the additional difficulty posed by the challenging wind conditions and had thus allowed the pilot to unknowingly descend below glideslope. Fortunately the cloud cover was high enough that visual cues allowed the pilot to recognize and correct for the deviation once below the clouds. No low altitude alert was given by the Tower during the approach.

Synopsis

C182 pilot reported descending below glideslope on an RNAV approach and noted that the glideslope indicator was inoperative only after seeing the visual glideslope indicators showing that the aircraft was below the glideslope.

ACN: 1422139 *(29 of 50)*

Time / Day

Date : 201702
Local Time Of Day : 1801-2400

Place

Locale Reference.Airport : BTV.Airport
State Reference : VT
Altitude.MSL.Single Value : 5500

Environment

Flight Conditions : IMC
Light : Night

Aircraft

Reference : X
ATC / Advisory.TRACON : BTV
Aircraft Operator : Air Carrier
Make Model Name : Medium Transport, Low Wing, 2 Turbojet Eng
Crew Size.Number Of Crew : 2
Operating Under FAR Part : Part 121
Flight Plan : IFR
Mission : Passenger
Flight Phase : Initial Approach
Airspace.Class E : BTV

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 : First Officer
Qualification.Flight Crew : Air Transport Pilot (ATP)
ASRS Report Number.Accession Number : 1422139
Human Factors : Situational Awareness
Human Factors : Troubleshooting

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 : Captain
Qualification.Flight Crew : Air Transport Pilot (ATP)
ASRS Report Number.Accession Number : 1422140
Human Factors : Situational Awareness
Human Factors : Troubleshooting

Events

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 : Took Evasive Action
Result.Flight Crew : Became Reoriented
Result.Air Traffic Control : Provided Assistance

Assessments

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

Narrative: 1

At approximately 10NM SW of JANUD at 5,500ft, received a terrain warning with a aural "PULL UP". Took evasive action and climbed to 7,500ft and leveled off. Notified ATC of the climb and warning. ATC informed us that MVA is 5,300ft and that we should not have received the EGPWS, but that it happens at times. We then were cleared for the approach and continued the the flight as normal.

Narrative: 2

[Report narrative contains no additional information.]

Synopsis

Air carrier flight crew reported encountering a terrain warning at night on approach to BTV and took evasive action.

ACN: 1421787 *(30 of 50)*

Time / Day

Date : 201702
Local Time Of Day : 0001-0600

Place

Locale Reference.ATC Facility : TWF.Tower
State Reference : ID
Altitude.MSL.Single Value : 9000

Environment

Flight Conditions : Marginal

Aircraft

Reference : X
ATC / Advisory.Tower : TWF
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 : Descent
Route In Use : Vectors
Airspace.Class D : TWF

Person : 1

Reference : 1
Location Of Person.Facility : TWF.Tower
Reporter Organization : Government
Function.Air Traffic Control : Ground
Function.Air Traffic Control : Local
Qualification.Air Traffic Control : Fully Certified
Experience.Air Traffic Control.Time Certified In Pos 1 (yrs) : 5
ASRS Report Number.Accession Number : 1421787
Human Factors : Situational Awareness

Person : 2

Reference : 2
Location Of Person.Facility : TWF.Tower
Reporter Organization : Government
Function.Air Traffic Control : Approach
Qualification.Air Traffic Control : Fully Certified
Experience.Air Traffic Control.Time Certified In Pos 1 (yrs) : 2
ASRS Report Number.Accession Number : 1421790
Human Factors : Situational Awareness
Human Factors : Confusion

Events

Anomaly.ATC Issue : All Types
Anomaly.Deviation - Altitude : Excursion From Assigned Altitude
Anomaly.Deviation - Procedural : Published Material / Policy
Anomaly.Inflight Event / Encounter : CFTT / CFIT
Detector.Person : Air Traffic Control
When Detected : In-flight

Assessments

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

Narrative: 1

While I was working local control/ground control combined, I overheard the non-radar approach controller approve a request from the ZLC sector 31 controller to have Aircraft X descending to 9,000 feet direct GABBY from the southeast for an ILS approach. The IFR flight progress strip clearly showed the projected inbound radial of Aircraft X to be in a 9500 foot Minimum IFR Altitude (MIA).

When the Aircraft X came over to approach's frequency, the approach controller issued a clearance to Aircraft X to "cross GABBY at or above 9'000 feet cleared for ILS approach." the weather was such that there were low ceilings to the southeast and it was obvious the aircraft was did not have visual contact with the ground. There is a misnomer in this facility that "if it works for the center then it must be ok for us" or, "if the center makes a particular request (usually altitude related) then it must be ok since the center asked for it." I've had this same situation happen before this controller and other controllers and I advised them to speak to competent authority to get the authorizing IFR aircraft below the MIA issue resolved. Their response is "I talked to other controllers or see other controllers do the same thing.'

Our letter of agreement with ZLC clearly shows what altitudes aircraft will be assigned over coordination fixes. The one referenced above says aircraft will be descending to 11,000 feet or instructed to cross GABBY at 11,000 feet. This should be adhered to as it causes confusion when a lower altitude is requested that is below our MIA'S, but the center says that that altitude request meets their MIA'S. Have the appropriate center officials compare their MIA charts with TWF'S MIA charts to identify/correct discrepancies.

Narrative: 2

During this event, I was working as approach. ZLC called and coordinated Aircraft X direct GABBY down to 9000 feet for the ILS Runway 26 approach. Our Letter of Agreement with ZLC states that GABBY should be coordinated at 11,000 feet. Our MIA in that area is 9500 feet. I asked if 9000 feet was good and they said yes, that works for them. I cleared Aircraft X to cross GABBY at or above 9000 feet on the ILS, and they were at or above 9000 feet until the transfer of control point. I was then told an hour and a half later by a controller that we cannot use that altitude even if ZLC says it works for them. I later called the Center Area and talked to the controller that coordinated 9000 feet. He said that 9000 feet works for their Minimum Descent Altitude.

I would share what information each facility has and what their minimums may be for

certain airspace, or airways, so that we can make sure that they are not descending below prescribed altitudes.

Synopsis

TWF Approach controllers approved an aircraft entering their airspace at an altitude below their Minimum Vectoring Altitude.

ACN: 1421778 *(31 of 50)*

Time / Day

Date : 201702
Local Time Of Day : 0001-0600

Place

Locale Reference.ATC Facility : S56.TRACON
State Reference : UT
Altitude.MSL.Single Value : 11000

Aircraft

Reference : X
ATC / Advisory.TRACON : S56
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 : Initial Approach
Route In Use : Vectors
Airspace.Class B : SLC

Component

Aircraft Component : ILS/VOR
Aircraft Reference : X
Problem : Improperly Operated

Person

Reference : 1
Location Of Person.Facility : S56.TRACON
Reporter Organization : Government
Function.Air Traffic Control : Approach
Function.Air Traffic Control : Traffic Management
Qualification.Air Traffic Control : Fully Certified
Experience.Air Traffic Control.Time Certified In Pos 1 (yrs) : 3.0
ASRS Report Number.Accession Number : 1421778
Human Factors : Situational Awareness
Human Factors : Training / Qualification
Human Factors : Distraction

Events

Anomaly.ATC Issue : All Types
Anomaly.Deviation - Track / Heading : All Types
Anomaly.Deviation - Procedural : Clearance
Anomaly.Inflight Event / Encounter : CFTT / CFIT
Detector.Person : Air Traffic Control
When Detected : In-flight
Result.Flight Crew : Became Reoriented
Result.Air Traffic Control : Issued New Clearance

Assessments

Contributing Factors / Situations : 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 on a vector to intercept the runway 17 localizer. They were issued a 140 heading to join. Aircraft X shot through and was seen descending into the 110 foot minimum vectoring altitude. The instructor took over and issued a heading to reintercept. Aircraft X reported in a 30 degree bank. The aircraft was still allowed to continue descending below the MVA.

Synopsis

S56 TRACON Controller reported an A320 on a vector to intercept a Localizer flew through the Localizer course placing the aircraft below the MVA.

ACN: 1420973 *(32 of 50)*

Time / Day

Date : 201701
Local Time Of Day : 1801-2400

Place

Locale Reference.Airport : HPN.Airport
State Reference : NY
Altitude.MSL.Single Value : 500

Environment

Flight Conditions : VMC
Weather Elements / Visibility : Turbulence
Weather Elements / Visibility : Windshear
Weather Elements / Visibility.Visibility : 10
Light : Night
Ceiling.Single Value : 5500

Aircraft

Reference : X
ATC / Advisory.Tower : HPN
Aircraft Operator : Personal
Make Model Name : Small Aircraft, Low Wing, 1 Eng, Fixed Gear
Crew Size.Number Of Crew : 1
Operating Under FAR Part : Part 91
Flight Plan : None
Mission : Personal
Flight Phase : Landing
Route In Use : None
Airspace.Class D : HPN

Person

Reference : 1
Location Of Person.Aircraft : X
Location In Aircraft : Flight Deck
Reporter Organization : FBO
Function.Flight Crew : Pilot Flying
Function.Flight Crew : Single Pilot
Qualification.Flight Crew : Instrument
Qualification.Flight Crew : Private
Experience.Flight Crew.Total : 511
Experience.Flight Crew.Last 90 Days : 18
Experience.Flight Crew.Type : 5
ASRS Report Number.Accession Number : 1420973
Human Factors : Situational Awareness

Events

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

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

Assessments

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

Narrative: 1

I was conducting stop-and-go practice at night at White Plains (KHPN) airport for the purpose of gaining night currency. Winds were 290, approximately 10G20. ATIS mentioned landing runways as Runway 34 and Runway 29. I chose runway 29 as it was more aligned with the wind. I took off Runway 29 and flew a left traffic pattern. I was cleared to land on Runway 29. On final, I found myself lower than needed and I clipped the top of a tree. I subsequently conducted an immediate go-around, [advised the] Tower, and landed the airplane normally on Runway 34. I was alone in the airplane. There was no bodily harm of anyone, nor was there property damaged on the ground. The airplane was damaged.

The likely cause of the problem in my opinion is that it is extremely difficult to conduct a normal approach to Runway 29 at night, as there is no VASI light, and the threshold is displaced by a very large distance in order to account for tall trees that border the airfield. Before taking off, I looked for an approach to Runway 29 in order to get an approach profile as a backup, but found there was no such approach (very likely due to the nonstandard configuration of obstacles close to the runway end.) In my opinion, Runway 29 should be closed at night for landing.

Synopsis

A general aviation pilot reported clipping a tree on final approach to HPN Runway 29. Darkness and the lack of a VASI were reported as contributing factors.

ACN: 1420902 *(33 of 50)*

Time / Day

Date : 201701
Local Time Of Day : 0601-1200

Place

Locale Reference.Airport : SDF.Airport
State Reference : KY
Altitude.MSL.Single Value : 1000

Environment

Flight Conditions : VMC
Light : Daylight

Aircraft

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

Person : 1

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 : Air Transport Pilot (ATP)
ASRS Report Number.Accession Number : 1420902
Human Factors : Situational Awareness

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 Flying
Qualification.Flight Crew : Air Transport Pilot (ATP)
ASRS Report Number.Accession Number : 1420903
Human Factors : Situational Awareness

Events

Anomaly.Deviation - Speed : 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.Flight Crew : Returned To Clearance
Result.Flight Crew : Became Reoriented

Assessments

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

Narrative: 1

We were being vectored for the ILS 35R into SDF. We were on a right downwind and ATC was leaving us high and we had to keep asking for lower altitudes which they gave us when asked. About 8-10 miles out they cleared us for a visual. We were still high and fast, 250 knots. The Captain set 230 kts on the speed and used speed brakes to slow. The Captain also disconnected the autopilot and started a turning descent towards the localizer. At 240 kts he called gear down and I selected gear down. At 220 kts we set flaps 1 and at 200 kts set flaps 2. The Captain was overriding the auto throttles at this time and at 190 kts he called flaps 3. I quickly checked the speed and set flaps 3. I must have missed the speed bug was not set for slower.

At this time we armed the approach. He was in a right turn to intercept the localizer and I looked down for a second to look up the tower frequency and set it in standby. When I look back up we were passing through the localizer and descending below glide slope. I pointed out we're were passing through final and low. He started correcting up and more to the right and the aircraft began to accelerate. At this point we accelerated through flap speed and got the overspeed aural warning.

At the same time ATC called out "altitude alert, check altitude, below min vectoring altitude." The Captain was correcting speed and altitude and I responded to ATC "we're correcting". We were almost full scale deflection to the left and below of the loc and glide slope but still well above 1000 feet and about 6 miles out. The Captain corrected speed and back onto the loc and glide slope. I selected a slower speed with the speed bug, I can't remember exactly what speed I set, I think 160 kts. We were handed over to Tower and cleared to land. We then selected flap 5, VAPP and completed the landing checklist. At 1000 feet instruments were normal and we were stable. We landed normally.

It all happened surprisingly fast. Basically we were too fast originally. When the Captain was, I thought, turning to intercept the loc I looked down for a second to put the Tower freq in standby. When I looked back up we were well past, to the left, of the loc and well below glide path. It took me a second to figure out what was going on and make the call outs. Because the speed was still set for a speed above 200 and the Captain was overriding the auto-throttles to slow, when he released the throttles the aircraft accelerated and exceed flap speed by about 8 knots.

First I should have stayed heads up until we were more stabilized on the final approach course and dealt with the frequency later. That way I could have helped monitor speed and configuration. And also better monitor the approach.

When we got the low altitude alert from ATC and were almost full scale deflection on the ILS, I probably should have called for a go around. Even though we were before and above the 1000 foot call it might have prevented an overspeed. I would suggest that if ATC ever calls a low altitude alert crews should automatically initiate a go-around. Even in VMC.

Narrative: 2

If I had asked for a slower speed on approach, took a wider turn, or commanded speeds to be set this would have never happened.

Synopsis

EMB-175 flight crew reported ATC issued a low altitude alert to them on approach into SDF.

ACN: 1420867 *(34 of 50)*

Time / Day

Date : 201701
Local Time Of Day : 1801-2400

Place

Locale Reference.Airport : EWR.Airport
State Reference : NJ
Altitude.MSL.Single Value : 800

Environment

Flight Conditions : VMC
Weather Elements / Visibility.Visibility : 5
Light : Night
Ceiling.Single Value : 5000

Aircraft

Reference : X
ATC / Advisory.TRACON : N90
Aircraft Operator : Air Carrier
Make Model Name : B767-300 and 300 ER
Crew Size.Number Of Crew : 2
Operating Under FAR Part : Part 121
Mission : Cargo / Freight
Flight Phase : Final Approach
Route In Use : Visual Approach
Airspace.Class B : EWR

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 Not Flying
Qualification.Flight Crew : Air Transport Pilot (ATP)
Experience.Flight Crew.Total : 15000
Experience.Flight Crew.Last 90 Days : 75
Experience.Flight Crew.Type : 75
ASRS Report Number.Accession Number : 1420867
Human Factors : Situational Awareness

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 Flying
Qualification.Flight Crew : Air Transport Pilot (ATP)

Experience.Flight Crew.Total : 10000
Experience.Flight Crew.Last 90 Days : 59
Experience.Flight Crew.Type : 1000
ASRS Report Number.Accession Number : 1420872
Human Factors : Situational Awareness

Events

Anomaly.Deviation - Altitude : Excursion From Assigned Altitude
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 : Air Traffic Control
When Detected : In-flight
Result.Flight Crew : Took Evasive Action
Result.Flight Crew : Executed Go Around / Missed Approach
Result.Flight Crew : Became Reoriented
Result.Air Traffic Control : Issued Advisory / Alert

Assessments

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

Narrative: 1

Due to strong gusty winds out of west, ATIS advised Stadium Visual approach Runway 29, Runway 22 for takeoff. The FMC did not contain the approach, so we built it as depicted. We put in altitudes and speeds for all fixes and threshold Runway 29. The JeppFD-Pro chart has nothing for SLIMR fix, so we put in a target so we would be stable prior and to avoid a "slam dunk" approach. We planned on turning west and acquired the PAPI's and continuing, [but] never got to that point. On descent after GIMEE, ATC advised us of an altitude alert. First Officer (FO) stopped descent. As we turned west toward CHUMR and Runway 29, got an obstacle caution/warning. We were stable at 1000' and fully configured. Executed a go around, got vectors to ILS 22L, uneventful landing. [Another air carrier] following us on the Stadium Visual also received an altitude alert from ATC about the time we were executing the go around. Found it odd that 2 consecutive carriers would have altitude alerts in the same area, possible altimeter issue with ATC? As a GA pilot I compared the Jepp chart with the Foreflight chart and found the Foreflight chart had an additional target altitude 1500-2500' at SLIMR/Lincoln Park, the JeppFD-Pro chart has no such target altitude. This would have been helpful, believe we would have been higher at SLIMR. Not sure if this was an oversight or omission by Jepp or a well advised addition by NOS. We are Jepp certified and I only checked Foreflight just out of curiosity after the flight. I was informed that [the other air carrier] also uses JeppFD-Pro, so it may have been a similar issue as well.

Narrative: 2

I will build the habit of reviewing the [special airport remarks], prior to briefing the approach, to make sure there are not any comments regarding the approach I am about to fly. Currently, I read through the [remarks] during cruise flight, then turn my focus to the approach chart to set up for the approach. Once we found out that Newark was using the Stadium Visual Runway 29 approach I located the approach plate and began studying the approach, including the notes listed. If we had reviewed the arrival procedures section

of the [remarks], we would have noticed that there is an approach in the FMC for the Stadium Visual that is labeled RNVV 29-. Knowing this information would have removed the perceived need to 'build' an approach in the FMC that fit the JeppFD-Pro profile listed on the Stadium Visual approach plate. We would have selected the RNVV 29- in the FMC and had the proper vertical path and altitude constraints - which the Stadium Visual approach plate did not provide. Fortunately, we receive excellent training for doing go-arounds. Once the decision was made, the go-around procedure was immediately executed and this flight had a successful ending.

Synopsis

B767-300 flight crew reported executing a go-around after receiving a low altitude alert from the Tower during the Stadium Visual to EWR Runway 29.

ACN: 1420148 *(35 of 50)*

Time / Day

Date : 201701
Local Time Of Day : 1201-1800

Place

Locale Reference.ATC Facility : NCT.TRACON
State Reference : CA
Altitude.MSL.Single Value : 3000

Environment

Flight Conditions : VMC
Light : Daylight

Aircraft

Reference : X
ATC / Advisory.TRACON : NCT
Aircraft Operator : Personal
Make Model Name : Small Aircraft, Low Wing, 1 Eng, Retractable Gear
Crew Size.Number Of Crew : 2
Operating Under FAR Part : Part 91
Flight Plan : IFR
Mission : Personal
Flight Phase : Descent
Route In Use : Vectors
Airspace.Class E : NCT

Person : 1

Reference : 1
Location Of Person.Facility : NCT.TRACON
Reporter Organization : Government
Function.Air Traffic Control : Approach
Qualification.Air Traffic Control : Fully Certified
ASRS Report Number.Accession Number : 1420148
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 : NCT.TRACON
Reporter Organization : Government
Function.Air Traffic Control : Coordinator
Qualification.Air Traffic Control : Fully Certified
Experience.Air Traffic Control.Time Certified In Pos 1 (yrs) : 5
ASRS Report Number.Accession Number : 1420152
Human Factors : Situational Awareness
Human Factors : Confusion

Events

Anomaly.ATC Issue : All Types
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.General : None Reported / Taken

Assessments

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

Narrative: 1

Aircraft X checked on my frequency at 6000 feet. After giving control instructions to other aircraft I came back to Aircraft X, issued the OAK altimeter, and asked him his requested altitude. He responded that his last assigned altitude was 6000 feet. I then asked him what his requested altitude was and he responded that he would take whatever altitude I could give him. I replied that I can give him anything he wants. He then stated how about 3000 feet. I responded that altitude was his discretion.

I handed Aircraft X off to the next sector. At that point Aircraft X was descending out of 4000 feet in a 4000 foot Minimum Vectoring Altitude (MVA). He continued to descend through a 5000 foot MVA down to 3000 feet. The receiving controller did not catch the MVA violation. During this entire incident I did not register that Aircraft X was IFR and I believed that he was VFR the entire time I was working him.

The low altitude alert did not go off either in the 4000 foot MVA or the 5000 foot MVA. I would recommend increased diligence of data blocks during busy sessions, and if busy ask for a hand-off.

Narrative: 2

I had just assumed the coordinator position. Traffic was on the busy side lots of VFR and IFR and I was going back and forth between scopes. I notice a Controller issue VFR traffic advisory to an aircraft level at 3000. I heard the response looking and I see traffic on the box. I did some other coordination then heard him say traffic no factor resume own navigation. Aircraft was still at 3000 in a 5000 MVA. I did not notice at this time he was an IFR data block, but he was talking like VFR. Something about the pilot response was weird. I did some more coordination and talked to Travis AFB ATC. Travis questioned the aircraft status as to IFR or VFR. I asked the Controller who at this time had been working it like a VFR and said he's VFR. I corrected the data block to say VFR and confirmed with Travis controller he is VFR. Did some more coordination and Travis called back and pilot had stated to them he was IFR. I was confused so I called back to verify and said we would look into it. During this whole event the aircraft had been on an IFR tag in at an altitude below the MVA and the Low Altitude Alert never went off which is more confusing. Also at the time we did not know how or when he had gotten to 3000.

That aircraft should have been on the proper route when handed off. Also, the Low Altitude Alert should have gone off.

Synopsis

NCT controllers reported thinking an IFR aircraft was VFR and allowed it to proceed on its own navigation below the MVA.

ACN: 1420057 *(36 of 50)*

Time / Day

Date : 201701
Local Time Of Day : 1201-1800

Place

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

Environment

Flight Conditions : VMC
Weather Elements / Visibility : Windshear
Weather Elements / Visibility.Visibility : 100
Light : Daylight
Ceiling.Single Value : 25000

Aircraft

Reference : X
Aircraft Operator : Personal
Make Model Name : Amateur/Home Built/Experimental
Crew Size.Number Of Crew : 1
Operating Under FAR Part : Part 91
Flight Plan : None
Mission : Personal
Flight Phase : Final Approach
Route In Use : None
Airspace.Class G : 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 : Flight Instructor
Qualification.Flight Crew : Commercial
Experience.Flight Crew.Total : 2500
Experience.Flight Crew.Last 90 Days : 140
Experience.Flight Crew.Type : 13
ASRS Report Number.Accession Number : 1420057
Human Factors : Training / Qualification
Human Factors : Fatigue

Events

Anomaly.Deviation - Procedural : Published Material / Policy
Anomaly.Ground Event / Encounter : Loss Of Aircraft Control
Anomaly.Ground Event / Encounter : Ground Strike - Aircraft
Anomaly.Inflight Event / Encounter : CFTT / CFIT
Detector.Person : Flight Crew

When Detected : In-flight
Result.Aircraft : Aircraft Damaged

Assessments

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

Narrative: 1

On a personal pleasure flight, flying low (500-1000 AGL) over extremely remote terrain (well more than 500 ft from an person, vessel, vehicle or structure) and careful not to operate in a careless or reckless manner, I descended low towards an open area, simulating an approach to landing. I misjudged my height and the wind conditions and unintentionally hit the surface. The wheels grabbed and I began to decelerate. In spite of adding power slowly the plane continued to decelerate. Finally in spite of being at full power, the plane continued to decelerate. It was unable to regain flight, so I committed to landing, by now at a very slow speed. The rollout was flat and smooth, but upon hitting a muddy area, the plane nosed over out of control. Damage was limited to the propeller and spinner, which struck the ground, [and] the engine cowling. Other than the plane, no object was damaged. No person was injured. I was able to push the Light-Sport plane to a nearby road where it was towed away.

Contributing Factors:
Airplane: A Light-Sport plane is more vulnerable to gusts and has less power.
Attitude: In retrospect, had I added full power immediately, I may have been able to regain flight. Probably the overconfident macho attitude "I can handle it" contributed the incident.
Conditions: Trees, hills, and the open area probably produced gusts and directional changes in the wind.
Different planes: I had just recently flown my Cessna T210 16 hours during the week, and I may have instinctively treated the Light Sport as if I were still in the T210 regarding the slow adding of power so as to not over-boost the turbo.

Corrective Actions: Emphasis on transition both from light to heavier aircraft and the reverse from heavier to lighter.

Human Performance Considerations:
Macho attitude
Greater familiarity and comfort - training the body to respond in another airplane than the one being flown.
Fatigue: The non-reportable incident occurred after a long week of travelling.

Synopsis

Avid Mk IV pilot reported inadvertently touching down in a muddy area during a simulated landing which resulted in a slow speed nose-over.

ACN: 1419897 *(37 of 50)*

Time / Day

Date : 201701
Local Time Of Day : 1801-2400

Place

Locale Reference.Airport : DCA.Airport
State Reference : DC
Altitude.MSL.Single Value : 1000

Environment

Flight Conditions : VMC
Light : Night

Aircraft

Reference : X
ATC / Advisory.Tower : DCA
Aircraft Operator : Air Carrier
Make Model Name : A319
Crew Size.Number Of Crew : 2
Operating Under FAR Part : Part 121
Flight Plan : IFR
Nav In Use : FMS Or FMC
Flight Phase : Final Approach
Route In Use : Visual Approach
Route In Use.STAR : FRDMM3
Airspace.Class B : DCA

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 : Air Transport Pilot (ATP)
Experience.Flight Crew.Total : 11667
Experience.Flight Crew.Last 90 Days : 180
Experience.Flight Crew.Type : 7658
ASRS Report Number.Accession Number : 1419897
Human Factors : Situational Awareness

Events

Anomaly.Deviation - Altitude : Excursion From Assigned Altitude
Anomaly.Deviation - Procedural : Published Material / Policy
Anomaly.Deviation - Procedural : Clearance
Anomaly.Inflight Event / Encounter : Fuel Issue
Anomaly.Inflight Event / Encounter : CFTT / CFIT
Detector.Person : Air Traffic Control
When Detected : In-flight

Result.Flight Crew : Returned To Clearance
Result.Flight Crew : Became Reoriented

Assessments

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

Narrative: 1

On the River Visual 19 to DCA we were issued a "low altitude alert" by Reagan Tower. We were approximately 4 DME DCA at approximately 1,000 feet. The Captain immediately leveled off until we joined a 3:1 glide path and landed without incident.

After thoroughly debriefing the event, it was determined that two issues contributed to the low altitude:

While on the FRDMM 3 RNAV arrival, we were issued an unanticipated hold at PLDGE intersection. After 30 minutes of holding, we were cleared inbound and, almost immediately, were issued a 90 degree vector off course. We declared "minimum fuel". When we joined the arrival, the FMGC showed us landing with 50 minutes of fuel. The additional discussion about our fuel state distracted us both from focusing exclusively on the approach.

It was the first time that either of us had flown the River Visual approach in some time. The approach was conducted at nighttime. Due to these factors, the majority of our time was spent "outside the aircraft" so as to avoid the prohibited area and locate Runway 19. This extra "outside" time reduced our altitude awareness.

Synopsis

A319 First Officer reported receiving a low altitude alert from ATC on a night visual approach to DCA.

ACN: 1419583 *(38 of 50)*

Time / Day

Date : 201701
Local Time Of Day : 0601-1200

Place

Locale Reference.Airport : GTU.Airport
State Reference : TX
Altitude.MSL.Single Value : 2000

Environment

Flight Conditions : IMC
Weather Elements / Visibility.Visibility : 5
Light : Daylight
Ceiling.Single Value : 400

Aircraft

Reference : X
ATC / Advisory.Tower : GTU
Aircraft Operator : Personal
Make Model Name : Baron 58/58TC
Crew Size.Number Of Crew : 1
Operating Under FAR Part : Part 91
Flight Plan : IFR
Mission : Personal
Nav In Use : GPS
Flight Phase : Final Approach
Route In Use.Other
Airspace.Class D : GTU

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
Qualification.Flight Crew : Multiengine
Experience.Flight Crew.Total : 2000
Experience.Flight Crew.Last 90 Days : 15
Experience.Flight Crew.Type : 480
ASRS Report Number.Accession Number : 1419583
Human Factors : Situational Awareness

Events

Anomaly.Deviation - Altitude : Excursion From Assigned Altitude
Anomaly.Deviation - Track / Heading : All Types
Anomaly.Deviation - Procedural : Clearance
Anomaly.Inflight Event / Encounter : Weather / Turbulence

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

Assessments

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

Narrative: 1

Shooting IFR approach into Georgetown. We had high crosswinds which pushed the plane off course on final and while initiating corrections using the autopilot, the altitude was disengaged and allowed the airplane to descend below the glide slope path. Controller warned of deviation off course of 1 mile and a low altitude alert. I informed him that the plane was working back to the course line and that we were going to just hold altitude. The thinking was that we would hold altitude until we flew back into the glide slope path. As we came closer to the airport we could see the ground through the cloud breaks and we dropped just below the cloud layer and continued the approach.

Synopsis

BE58 pilot reported a track and altitude deviation on approach to GTU that resulted in a low altitude alert from ATC.

ACN: 1419189 *(39 of 50)*

Time / Day

Date : 201701
Local Time Of Day : 1201-1800

Place

Locale Reference.Airport : SLC.Airport
State Reference : UT
Altitude.MSL.Single Value : 7500

Environment

Flight Conditions : IMC
Light : Daylight

Aircraft

Reference : X
ATC / Advisory.TRACON : S56
Make Model Name : Cessna Citation Sovereign (C680)
Crew Size.Number Of Crew : 2
Flight Plan : IFR
Nav In Use : GPS
Nav In Use : FMS Or FMC
Nav In Use.Localizer/Glideslope/ILS : Runway 17
Flight Phase : Initial Approach
Route In Use.STAR : SKEES4
Airspace.Class B : SLC

Person : 1

Reference : 1
Location Of Person.Aircraft : X
Location In Aircraft : Flight Deck
Function.Flight Crew : Pilot Flying
Function.Flight Crew : First Officer
Qualification.Flight Crew : Air Transport Pilot (ATP)
ASRS Report Number.Accession Number : 1419189
Human Factors : Distraction
Human Factors : Training / Qualification
Human Factors : Situational Awareness

Person : 2

Reference : 2
Location Of Person.Aircraft : X
Location In Aircraft : Flight Deck
Function.Flight Crew : Pilot Not Flying
Function.Flight Crew : Captain
Qualification.Flight Crew : Air Transport Pilot (ATP)
ASRS Report Number.Accession Number : 1419191
Human Factors : Situational Awareness

Events

Anomaly.Deviation - Track / Heading : All Types
Anomaly.Deviation - Procedural : Published Material / Policy
Anomaly.Deviation - Procedural : Clearance
Anomaly.Inflight Event / Encounter : CFTT / CFIT
Detector.Person : Flight Crew
Detector.Person : Air Traffic Control
When Detected : In-flight
Result.Flight Crew : Returned To Clearance
Result.Flight Crew : Became Reoriented
Result.Air Traffic Control : Issued Advisory / Alert

Assessments

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

Narrative: 1

I was pilot flying. During ILS Runway 17 approach at SLC using LNAV to finish SKEES4 arrival we were cleared direct to BOOOT, and then IVOCY, PRYES and TIFUL (FAF). The crew discussed letting the system auto change to green needles to complete the approach. Shortly after that SLC Approach Control gave us a vector of 120 degrees to intercept the final approach and maintain 7,500 feet until established. Heading was selected. I should have selected green needles at that time. But I did not and was waiting for the system to intercept the inbound course forgetting heading mode was selected.

When we went through the approach course, I was trying to figure out why instead of making an immediate correction. I started to make a correction at about the same time SLC Approach gave us an immediate heading change to the southwest and a climb, due to high terrain to the east of our position. On our new heading we were cleared to intercept the final approach course followed by an uneventful approach and landing.

I should make sure trying to use automation does not interfere with proper control of the aircraft. Need to confirm we are using the correct navigation mode for what we are trying to do.

Narrative: 2

[Report narrative contained no additional information.]

Synopsis

CE-680 flight crew reported loss of situational awareness and over-reliance on automation resulted in a track deviation leading to a terrain alert from ATC during the approach to SLC.

ACN: 1419082 *(40 of 50)*

Time / Day

Date : 201701

Place

Locale Reference.Airport : ZZZ.Airport
State Reference : US
Altitude.MSL.Single Value : 2500

Environment

Flight Conditions : IMC
Ceiling.Single Value : 700

Aircraft

Reference : X
ATC / Advisory.TRACON : ZZZ
Aircraft Operator : Air Carrier
Make Model Name : B737 Next Generation Undifferentiated
Crew Size.Number Of Crew : 2
Operating Under FAR Part : Part 121
Flight Plan : IFR
Mission : Passenger
Flight Phase : 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 : First Officer
Function.Flight Crew : Pilot Flying
Qualification.Flight Crew : Air Transport Pilot (ATP)
Experience.Flight Crew.Last 90 Days : 121
Experience.Flight Crew.Type : 6000
ASRS Report Number.Accession Number : 1419082
Human Factors : Situational Awareness

Events

Anomaly.Aircraft Equipment Problem : Less Severe
Anomaly.Deviation - Altitude : Excursion From Assigned Altitude
Anomaly.Inflight Event / Encounter : CFTT / CFIT
Detector.Automation : Air Traffic Control
Detector.Person : Flight Crew
Detector.Person : Air Traffic Control
When Detected : In-flight
Result.General : Maintenance Action
Result.Flight Crew : Overcame Equipment Problem
Result.Flight Crew : Returned To Clearance

Assessments

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

Narrative: 1

I was Pilot Flying on a vectored heading to intercept localizer final, level at 2500. The autopilot was on and holding altitude. Just prior to course intercept, we got a Stab out of Trim warning. I looked back at my instruments and the aircraft was descending and about 100 feet low with the autopilot on. I immediately disconnected the autopilot to manually climb back up to altitude while intercepting the Localizer. The trim was heavy nose down, and electric trim was inop while the aircraft continued to descend until I could get enough muscle on the controls, and manual trim, to climb back to altitude. We were about 400 feet low and Approach called us and notified us he had a Low Altitude Alert on us, and gave the min vectoring altitude 2100 MSL for our location.

We maintained localizer, climbed back up to 2500 MSL, captured the glideslope, ran the QRH and continued the approach using manual trim. We talked about a missed approach, but decided it would be safer to continue and land. We broke out at about 700 ft to a normal landing using manual trim. After clearing the runway, the Captain tried his electric trim and it was operational, so I tried mine and now it worked. The Captain wrote up the trim; Contract Maintenance came out, we ran the trim but it would just stop on its own. Maintenance determined the trim motor was going bad and the trim was intermittent.

I don't know of anything that we could change to keep this from happening again. We don't use manual trim very often, and there is learning curve on how much you have to spin the wheel and how much force is required to move it.

Synopsis

B737-NG First Officer reported receiving a low altitude alert from ATC on approach when the stab trim failed leaving them with manual trim only.

ACN: 1419020 *(41 of 50)*

Time / Day

Date : 201701
Local Time Of Day : 1201-1800

Place

Locale Reference.Airport : RNO.Airport
State Reference : NV

Environment

Flight Conditions : Mixed
Weather Elements / Visibility.Visibility : 6
Light : Dusk
Ceiling.Single Value : 6000

Aircraft

Reference : X
ATC / Advisory.Tower : RNO
Aircraft Operator : Air Carrier
Make Model Name : B737 Undifferentiated or Other Model
Crew Size.Number Of Crew : 2
Operating Under FAR Part : Part 121
Mission : Passenger
Flight Phase : Initial Approach
Route In Use.Other
Airspace.Class C : RNO

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.Last 90 Days : 197
ASRS Report Number.Accession Number : 1419020

Events

Anomaly.ATC Issue : All Types
Anomaly.Deviation - Altitude : Excursion From Assigned Altitude
Anomaly.Inflight Event / Encounter : CFTT / CFIT
Detector.Person : Air Traffic Control
When Detected : In-flight
Result.Air Traffic Control : Issued Advisory / Alert

Assessments

Contributing Factors / Situations : Procedure
Primary Problem : Procedure

Narrative: 1

This flight was flown into RNO during a period of variable weather and visibilities with intermittent snow and rain in the area. The arrival time was near dusk. I was the Pilot Flying and we briefed and flew the RNAV RNP Y 16R. The approach was flown in accordance with our Standard Procedures with .3 set on the RNP on the LEGS page and the ANP showing a .01 accuracy. I believe the temperature was above freezing. The approach was backed up with the RNO ILS to 16R with 110.9 set in both NAV radios.

While on the approach approximately one mile prior to MASTR, and in contact with RNO Tower, the Tower issued a Low Altitude Alert to us. No EGPWS Cautions or Warnings occurred. We checked both EGPWS indications and raw radio altimeter indications and all were normal and green. We were monitoring aircraft status on the approach, the approach mode was in LNAV and VNAV PATH and our path indicators were centered for vertical and lateral deviations. The autopilot and autothrottles were engaged in CMD mode. Nothing on the approached looked abnormal and the ghost glide path indications from the 16R ILS were centered with the VNAV PATH indications.

As the aircraft rolled out on final near OKITE all Localizer indications were centered as well. Basically everything worked fine with the aircraft and we landed uneventfully. Upon our taxi back we queried the Tower concerning the low altitude alert while on the approach. They said that if the aircraft is near one of the mountains while on the approach that their equipment will signal the warning. I think that if this is part of the normal procedure while flying the RNAV RNP approaches that there should be a note either on the approach plate or within the Company 10-7 pages to prevent confusion.

This is a high threat airport when it comes to terrain. The RNAV RNP approaches reduce the risks extensively. If our procedures are going to cause an ATC low altitude warning, then we need to know that either on the approach plate or on the Company information page. I really should get no warning from ATC when the approach is flown properly.

Synopsis

B737 Captain reported receiving a low altitude alert from ATC on approach to RNO even though the aircraft appeared to be on course and altitude.

ACN: 1418491 *(42 of 50)*

Time / Day

Date : 201701
Local Time Of Day : 1801-2400

Place

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

Environment

Light : Night

Aircraft : 1

Reference : X
ATC / Advisory.Tower : PSP
Aircraft Operator : Air Taxi
Make Model Name : Medium Transport, Low Wing, 2 Turbojet Eng
Crew Size.Number Of Crew : 2
Operating Under FAR Part : Part 135
Flight Plan : IFR
Mission : Passenger
Flight Phase : Initial Climb
Route In Use : Vectors
Airspace.Class E : SCT

Aircraft : 2

Reference : Y
ATC / Advisory.CTAF : UDD
ATC / Advisory.TRACON : SCT
Aircraft Operator : Fractional
Make Model Name : Small Transport, Low Wing, 2 Turbojet Eng
Crew Size.Number Of Crew : 2
Operating Under FAR Part : Part 135
Flight Plan : IFR
Mission : Passenger
Flight Phase : Takeoff
Airspace.Class E : SCT

Person

Reference : 1
Location Of Person.Facility : SCT.TRACON
Reporter Organization : Government
Function.Air Traffic Control : Departure
Qualification.Air Traffic Control : Fully Certified
ASRS Report Number.Accession Number : 1418491
Human Factors : Communication Breakdown
Human Factors : Confusion
Human Factors : Situational Awareness
Human Factors : Distraction

Communication Breakdown.Party1 : ATC
Communication Breakdown.Party2 : ATC

Events

Anomaly.ATC Issue : 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.Person : Air Traffic Control
When Detected : In-flight
Result.Flight Crew : Returned To Departure Airport
Result.Air Traffic Control : Provided Assistance

Assessments

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

Narrative: 1

Released Aircraft X off PSP RWY 13R. A few minutes later I released Aircraft Y off of UDD. Aircraft X departed and [needed to return to the airport] with PSP tower. The tower called and said Aircraft X was going to stay with them and go back to the airport and land. Aircraft X continued on the 100 degree heading and never climbed out of 2,000 or entered the traffic pattern. That heading kept Aircraft X aimed right at the UDD airport where the other aircraft was released for departure. I had to call the PSP tower and tell them to climb Aircraft X who was well below the MVA in the area. The two aircraft never had a loss of separation.

The tower should have given me the aircraft if it was not going to stay in the tower pattern. I should have tried to reach out to Aircraft Y on the ground to attempt to cancel the release if it hadn't already switched to advisories for departure. Better communication between myself and the tower would have made the situation clearer and maybe easier to solve.

Synopsis

SCT TRACON Controller reported an aircraft departed PSP and needed to return to the airport. They stayed on PSP Tower's frequency, but left the airport environment. This lead to a conflict with an aircraft departing UDD.

ACN: 1418457 *(43 of 50)*

Time / Day

Date : 201701
Local Time Of Day : 1201-1800

Place

Locale Reference.ATC Facility : CPR.Tower
State Reference : WY
Altitude.MSL.Single Value : 11100

Environment

Light : Daylight

Aircraft

Reference : X
ATC / Advisory.TRACON : CPR
Aircraft Operator : Corporate
Make Model Name : Small Aircraft, Low Wing, 1 Eng, Fixed Gear
Crew Size.Number Of Crew : 1
Operating Under FAR Part : Part 91
Flight Plan : IFR
Mission : Passenger
Flight Phase : Cruise
Route In Use : Direct
Airspace.Class E : CPR

Person : 1

Reference : 1
Location Of Person.Facility : CPR.Tower
Reporter Organization : Government
Function.Air Traffic Control : Supervisor / CIC
Function.Air Traffic Control : Local
Qualification.Air Traffic Control : Fully Certified
Experience.Air Traffic Control.Time Certified In Pos 1 (yrs) : 2
ASRS Report Number.Accession Number : 1418457
Human Factors : Situational Awareness
Human Factors : Confusion

Person : 2

Reference : 2
Location Of Person.Facility : CPR.TRACON
Reporter Organization : Government
Function.Air Traffic Control : Approach
Qualification.Air Traffic Control : Fully Certified
Experience.Air Traffic Control.Time Certified In Pos 1 (yrs) : 2
ASRS Report Number.Accession Number : 1418468
Human Factors : Situational Awareness
Human Factors : Confusion

Events

Anomaly.ATC Issue : All Types
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.Air Traffic Control : Issued Advisory / Alert

Assessments

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

Narrative: 1

I was on Local Control as Controller in Charge. I noticed that Aircraft X was coming in at an altitude lower than the Minimum Vectoring Altitude (MVA) the aircraft was in. I pulled a full route of the flight plan to see if the aircraft was filed on a Victor Airway and Aircraft X was not, the aircraft was filed at 11000 feet. I instructed the Approach Controller to wait until the aircraft cleared the MVA to take the handoff.

Narrative: 2

While working Approach/Departure Control Aircraft X was inbound from the Southwest direct CPR airport. According to the Full Route the aircraft was direct CPR at 11000 feet. The Minimum Vectoring Altitude (MVA) along the route of flight was 11200 feet. I did not accept the handoff from ZDV Sector 22 until the aircraft was located in a lower MVA 3 miles from our boundary due to the aircraft at 11100 in the 11200 MVA.

Synopsis

CPR Local Controller reported the Approach Controller was being handed off an aircraft from the Center indicating 100 feet below the MVA. He ordered the Approach Controller to not take the handoff until the aircraft was in a lower MVA.

ACN: 1418294 *(44 of 50)*

Time / Day

Date : 201701
Local Time Of Day : 0601-1200

Place

Locale Reference.Airport : DCA.Airport
State Reference : DC

Environment

Flight Conditions : IMC
Light : Daylight

Aircraft

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

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 : Air Transport Pilot (ATP)
ASRS Report Number.Accession Number : 1418294

Events

Anomaly.Deviation - Procedural : Published Material / Policy
Anomaly.Inflight Event / Encounter : CFTT / CFIT
Detector.Automation : Aircraft Terrain Warning
Detector.Person : Air Traffic Control
Were Passengers Involved In Event : N
When Detected : In-flight
Result.Air Traffic Control : Issued Advisory / Alert

Assessments

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

Contributing Factors / Situations : Weather
Primary Problem : Procedure

Narrative: 1

While shooting an approach into DCA Runway 19 LDA Z, Tower informed us that we were low and we received an aural terrain alert from the aircraft. Just before this occurred we broke out above minimums and we were turning to track the river. As pilot monitoring, I did not see a high sink rate or course deviation based on our flight instruments. I responded to the Tower by stating "We are visual." We landed and did not have any further issues.

Synopsis

Air carrier flight crew reported receiving a Tower low altitude alert along with an aircraft terrain warning after breaking out above minimums and turning to track the river on the Runway 19 LDA Z approach to DCA.

ACN: 1418216 *(45 of 50)*

Time / Day

Date : 201701
Local Time Of Day : 1801-2400

Place

Locale Reference.ATC Facility : BTV.TRACON
State Reference : VT
Altitude.MSL.Single Value : 5100

Aircraft

Reference : X
ATC / Advisory.TRACON : BTV
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
Flight Phase : Descent
Route In Use : Vectors
Airspace.Class C : BTV

Person

Reference : 1
Location Of Person.Facility : BTV.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) : 4.0
ASRS Report Number.Accession Number : 1418216
Human Factors : Situational Awareness

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

Assessments

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

Narrative: 1

The aircraft had been switched to TRACON from Center. The aircraft was issued a vector towards final and descent to 7000 feet. As the aircraft was getting closer to the final it was issued a further descent to 5500 feet, this is very normal on an ILS Approach. The pilot read back 5500 feet. I turned my head to scan some strips that had printed out. I turned back and noticed the aircraft was indicating 5100 feet. I immediately told the aircraft to climb to 5500 feet which they did.

The STARS R4.0 build has the capability to have altitude filters set in addition to the Minimum Safe Altitude Warning (MSAW) alarm. Unlike the MSAW alarm which only looks at projected path and the actual terrain this additional feature can be totally customization for specific areas in an airspace where a altitude "hotspot" may exist and will flash the aircraft's datablock to help catch the controller's attention. This feature should be considered for use at BTV in specific area over both mountain ranges in our airspace.

Synopsis

A BTV TRACON Controller reported observing an aircraft descend below its assigned altitude and below the Minimum Vectoring Altitude.

ACN: 1418014 *(46 of 50)*

Time / Day

Date : 201701
Local Time Of Day : 0601-1200

Place

Locale Reference.Airport : LBB.Airport
State Reference : TX
Relative Position.Angle.Radial : 200
Relative Position.Distance.Nautical Miles : 10
Altitude.MSL.Single Value : 4700

Environment

Flight Conditions : VMC
Weather Elements / Visibility.Visibility : 5
Light : Night
Ceiling.Single Value : 5000

Aircraft

Reference : X
ATC / Advisory.Tower : LBB
Aircraft Operator : Air Carrier
Make Model Name : Widebody, Low Wing, 2 Turbojet Eng
Crew Size.Number Of Crew : 2
Operating Under FAR Part : Part 121
Flight Plan : IFR
Mission : Cargo / Freight
Flight Phase : Initial Approach
Route In Use : Visual Approach
Airspace.Class C : LBB

Component

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

Person

Reference : 1
Location Of Person.Aircraft : X
Location In Aircraft : Flight Deck
Reporter Organization : Air Carrier
Function.Flight Crew : Captain
Function.Flight Crew : Pilot Flying
Qualification.Flight Crew : Air Transport Pilot (ATP)
Experience.Flight Crew.Total : 9135
Experience.Flight Crew.Last 90 Days : 92
Experience.Flight Crew.Type : 4281
ASRS Report Number.Accession Number : 1418014
Human Factors : Situational Awareness
Human Factors : Troubleshooting

Events

Anomaly.Deviation - Procedural : Published Material / Policy
Anomaly.Inflight Event / Encounter : CFTT / CFIT
Detector.Automation : Air Traffic Control
Detector.Person : Flight Crew
When Detected : In-flight
Result.Flight Crew : Took Evasive Action
Result.Air Traffic Control : Provided Assistance

Assessments

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

Narrative: 1

On arrival into LBB, we needed to work an issue due to a flap fault. Decided to not proceed with the approach and climbed from 4700 MSL to 6000 MSL, get vectors so we could handle the problem. Vectors took us west, then to the south and west of the airport. Checklist was finished and all data rechecked, told approach that were ready to head back to the airport. At this time, we were about 15 miles to the southwest of the field and starting to get configured and running checklists. From our current position, we were cleared for the visual approach to 35L. We saw some tall towers below us and to the left of our heading to intercept the final and at least one to the right of course, so we decided to stay on a heading to intercept the extended final outside of FRIER for 35L, which would than maintain the towers in sight to the left and right of our course. As the final approach altitude was 4700 MSL, we descended from 6000 to 4700 MSL so as to be on altitude at the FAF at about 9 miles from the field (There is a note in the airport briefing guides to be alert for close in FAF and less altitude to get stabilized by).

Once we checked in with tower, they told they were getting a low altitude alert for us, told them we were climbing back to 5200 MSL until on the extended centerline and clear of towers. Once on final, we went back down to 4700 and had a normal approach. Looking back, I probably should have been more directive in the location of where we needed to get vectors to so as not to be in a spot where, when cleared for the approach, it would put in in the area of tall towers. While all the towers were in sight, I should have recognized that they were a potential hazard to our route of flight to commence the approach. I talked with the First Officer about our flight and we decided to put in a report. After looking closer at the approach chart, there are quite a few towers, with some good height to them, to the south of the field, and very near the extended center line for runway 35L. It might be a good idea to state something about the towers and their proximity to the final of 35L in the airport briefing guide.

Synopsis

Air carrier Captain reported receiving a low altitude alert from ATC while on a night approach to LBB.

ACN: 1417942 *(47 of 50)*

Time / Day

Date : 201701
Local Time Of Day : 0601-1200

Place

Locale Reference.ATC Facility : ZOA.ARTCC
State Reference : CA
Altitude.MSL.Single Value : 16000

Environment

Weather Elements / Visibility : Turbulence
Light : Daylight

Aircraft

Reference : X
ATC / Advisory.Center : ZOA
Aircraft Operator : Personal
Make Model Name : Small Aircraft, Low Wing, 1 Eng, Retractable Gear
Crew Size.Number Of Crew : 1
Operating Under FAR Part : Part 91
Flight Plan : IFR
Mission : Personal
Flight Phase : Cruise
Airspace.Class E : ZOA

Person

Reference : 1
Location Of Person.Facility : ZOA.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) : 3.3
ASRS Report Number.Accession Number : 1417942
Human Factors : Training / Qualification
Human Factors : Situational Awareness

Events

Anomaly.ATC Issue : All Types
Anomaly.Deviation - Altitude : Excursion From Assigned Altitude
Anomaly.Deviation - Procedural : Published Material / Policy
Anomaly.Inflight Event / Encounter : Weather / Turbulence
Anomaly.Inflight Event / Encounter : CFTT / CFIT
Detector.Person : Air Traffic Control
When Detected : In-flight
Result.Flight Crew : Requested ATC Assistance / Clarification
Result.Flight Crew : Regained Aircraft Control
Result.Air Traffic Control : Provided Assistance

Assessments

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

Narrative: 1

This is a situation that I witnessed, and do not think a [report] was filed. I feel it pertinent to bring up. Aircraft X was flying at the lowest assignable attitude (16000 feet) over the Sierra Nevada. The Minimum IFR Altitude (MIA) in that area is 15200 feet. The aircraft experienced serious downdrafts, and lost over 1200 feet of altitude in only 2-3 radar returns. The aircraft asked for help, and the controller working the sector initially responded with "you're below my MIA, I can't vector you below the MIA." The controller asked if he was getting icing, but the pilot said negative. When he finally gave suggested headings, the controller was saying things like maybe this heading or maybe that heading. Nothing concrete that would invoke any sort of confidence in the pilot. I feel that the controller did a terrible job helping the pilot. He did not issue a low altitude alert or even find out if he was IMC until 10 minutes after the issue started. It took another controller to make him ask the pilot if he was IMC, and issue a safety alert. The controller gave a much better service to another aircraft that was not in an emergency situation than he gave this aircraft. When the Operations Manager came in the area he asked if the pilot was getting carb icing (a very good question), and the controllers response was "he is not getting icing." The controller NEVER asked the pilot if he was getting carb icing. While this was probably not a contributing factor, this was pertinent information that could have helped the pilot get more power out of his engine.

This particular controller has many difficulties working normal traffic, and a situation like this put him over the edge. This was a very unsafe situation, and I feel that if the pilot had not kept his cool he may have crashed. I feel that situations like these, that do not show up as a loss of separation, airspace violation, or incident are not looked at very seriously at our facility. Management filed an incident report but it was very vague and did not properly narrate the situation. I don't even think management listened to the tape. I do not want someone to be penalized, but I think we need to engage this controller, and offer him more training on these types of situations. In fact, every controller, including myself should be "called out" if they do not provide enough service to an aircraft in need. We do run simulations with scenarios like this during our "recovery" training, but I feel this exact situation should be re-created. We need to focus on all safety issues, not just separation loss or airspace violations.

Synopsis

ZOA Controller reported observing another Controller work an aircraft in downdrafts over mountains, but did not handle the situation according to standards.

ACN: 1417440 *(48 of 50)*

Time / Day

Date : 201701
Local Time Of Day : 1801-2400

Place

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

Environment

Flight Conditions : VMC

Aircraft

Reference : X
ATC / Advisory.TRACON : ZZZ
Aircraft Operator : Air Carrier
Make Model Name : A330
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 : Pilot Not Flying
Function.Flight Crew : First Officer
Qualification.Flight Crew : Air Transport Pilot (ATP)
ASRS Report Number.Accession Number : 1417440
Human Factors : Situational Awareness
Human Factors : Workload

Events

Anomaly.ATC Issue : All Types
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 : Human Factors
Contributing Factors / Situations : Procedure
Primary Problem : Procedure

Narrative: 1

We were given a 90 degree vector direct to [the FAF] about 10 miles from the fix and given a descent to 2,000 feet. We were then cleared for a visual. Turning final the aircraft was well below glide slope and we received a GPWS glide slope warning. Corrections were made to get back on glide slope and the landing was uneventful.

Poor vectoring by ATC for a heavy aircraft. The crew's familiarity with the approach. We did comment this would be a very close in approach, but visibility was excellent which led the Pilot Flying (PF) to continue.

Do not accept poor vector. ATC should not give a heavy aircraft a close in vector for this approach and we, as a crew should not have accepted it.

Synopsis

A330 First Officer reported receiving a very tight vector for an approach, resulting in the aircraft becoming low on the glideslope and generating a GPWS warning. A timely correction was made to the glideslope and a successful landing was accomplished.

ACN: 1416696 *(49 of 50)*

Time / Day

Date : 201701
Local Time Of Day : 1201-1800

Place

Locale Reference.Airport : PIT.Airport
State Reference : PA
Altitude.MSL.Single Value : 2500

Environment

Flight Conditions : VMC
Light : Daylight

Aircraft

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

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)
ASRS Report Number.Accession Number : 1416696

Events

Anomaly.Deviation - Altitude : Overshoot
Anomaly.Deviation - Procedural : Published Material / Policy
Anomaly.Deviation - Procedural : Clearance
Anomaly.Inflight Event / Encounter : CFTT / CFIT
Detector.Automation : Aircraft Terrain Warning
Detector.Person : Air Traffic Control
When Detected : In-flight
Result.Flight Crew : Returned To Clearance
Result.Air Traffic Control : Issued Advisory / Alert

Assessments

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

Narrative: 1

While searching for our runway in visual conditions. Our assigned altitude was 3000 autopilot engaged, 3000 set in preselect, verified and then initiated descent to 3000. The autopilot was engaged and preselect altitude had changed to 1900. We both were certain we confirmed 3000 prior to commencing descent. While we were looking for airport, we received an "obstacle" call from EGPWS. I immediately added thrust and began climbing. Just as I added thrust, approach replied assigned altitude 3000. We returned to it, saw the field, conducted a stable visual approach, and landed normally.

Cause: Fixation of both pilots outside the aircraft trying to visually find the airport. Instead of one of us playing close attention to aircraft instruments.

Always prioritize aircraft state and constantly cross check instruments when in any phase of flight, but especially during the critical phases.

Synopsis

CRJ-900 Captain reported descending below assigned altitude on approach to PIT and receiving an obstacle warning from the EGPWS.

ACN: 1416231 *(50 of 50)*

Time / Day

Date : 201701
Local Time Of Day : 1801-2400

Place

Locale Reference.ATC Facility : BOI.TRACON
State Reference : ID
Altitude.MSL.Single Value : 7000

Environment

Flight Conditions : Marginal

Aircraft : 1

Reference : X
ATC / Advisory.TRACON : BOI
Aircraft Operator : Military
Make Model Name : Military Transport
Crew Size.Number Of Crew : 1
Operating Under FAR Part : Part 91
Flight Plan : IFR
Mission : Training
Flight Phase : Initial Approach
Route In Use : Vectors
Airspace.Class C : BOI

Aircraft : 2

Reference : Y
ATC / Advisory.TRACON : BOI
Aircraft Operator : Military
Make Model Name : Military Transport
Crew Size.Number Of Crew : 1
Operating Under FAR Part : Part 91
Flight Plan : IFR
Mission : Training
Flight Phase : Initial Approach
Route In Use : Vectors

Aircraft : 3

Reference : Z
ATC / Advisory.TRACON : BOI
Aircraft Operator : Military
Make Model Name : Military Transport
Crew Size.Number Of Crew : 1
Operating Under FAR Part : Part 91
Flight Plan : IFR
Mission : Training
Flight Phase : Initial Approach
Route In Use : Vectors

Aircraft : 4

Reference : A
ATC / Advisory.TRACON : BOI
Aircraft Operator : Military
Make Model Name : Military Transport
Crew Size.Number Of Crew : 1
Operating Under FAR Part : Part 91
Flight Plan : IFR
Mission : Training
Flight Phase : Initial Approach
Route In Use : Vectors

Aircraft : 5

Reference : B
ATC / Advisory.TRACON : BOI
Aircraft Operator : Air Carrier
Make Model Name : Dash 8 Series 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

Aircraft : 6

Reference : C
ATC / Advisory.TRACON : BOI
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 : Initial Approach

Person : 1

Reference : 1
Location Of Person.Facility : BOI.TRACON
Reporter Organization : Government
ASRS Report Number.Accession Number : 1416231

Person : 2

Reference : 2
Location Of Person.Facility : BOI.TRACON
Function.Air Traffic Control : Supervisor / CIC
Function.Air Traffic Control : Approach
Qualification.Air Traffic Control : Fully Certified
Experience.Air Traffic Control.Time Certified In Pos 1 (yrs) : 14.0
ASRS Report Number.Accession Number : 1416519
Human Factors : Distraction
Human Factors : Training / Qualification

Human Factors : Workload
Human Factors : Situational Awareness

Events

Anomaly.ATC Issue : All Types
Anomaly.Conflict : Airborne Conflict
Anomaly.Deviation - Track / Heading : All Types
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.Air Traffic Control : Issued New Clearance

Assessments

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

Narrative: 1

I was receiving a skill check from my supervisor at the time of the incident. Weather was in the area and for the first part of the session traffic had been light and routine. After half way through the first part of the training session [military aircrafts] were recovering from their practice area. There were 2 flights of 2 and 2 singles. They didn't come in at once but they were about 20 seconds apart and they all came in VFR. Because there was light to moderate precipitation around the airport the flights changed their plan and requested local IFR clearances and flight split ups so they could do the TACAN Approach to Runway 28L.

While the [military aircrafts] were inbound I had a DH8 on an arrival as well as a B737 and I had to departures plus I had to sequence to the North Radar with his arrivals. The incident occurred when I had [military aircrafts] on a vector to intercept final. At the time I turned [the military aircraft flight] to intercept the Minimum Vectoring Altitude (MVA) was seven thousand. However [one of the military planes] were 4 or 5 miles in trail and the turn I gave them wasn't enough to intercept the final approach course and miss the higher MVA of eight thousand. [The military aircraft] was briefly in the higher MVA and given a heading to exit it immediately. Thankfully the [military aircraft] was able to intercept final and landed without incident. This was my first time working the [military planes] in inclement weather and doing flight split ups.

I am presently in training. I need to keep training in order to make adjustments and improve. The [military aircraft] had been deployed overseas for months and in that time I had been unable to train with them. They're back now and are always providing new challenges. One suggestion to alleviate this problem would be to have the military approach control perform the flight split ups prior to entering my airspace when we are landing west. There isn't a lot of space to vector 6 aircraft with rapidly rising terrain.

Narrative: 2

I was conducting a monthly skill check on a Controller in training with approximately 60 hours on this position. 4 flights of [military aircraft] (2 single ships and 2 flights of 2) had

departed earlier for training at Mountain Home. The two flights of 2 had cancelled IFR immediately upon departure in order to stay below the clouds. At the time of the occurrence, the [the military aircrafts] were returning to BOI to land expecting Runway 28L. When the first flight was about 13 miles from the airport they advised that they would be unable to return VFR and requested a flight split and separate IFR clearances.

I found out later that the trainee had not worked this type of scenario other than in simulation. As I talked him through the first one, he issued IFR clearances to both [the military aircraft] and had them both established on a 010 heading about 5 mile apart. Then he turned [the military aircraft] to a heading of 310 and cleared them for the TACAN approach. He had initially climbed [the military aircraft] to 8000 feet but had descended him back down to 7000 feet with the intention of turning him to the same 310 heading which would have had him going from a 7000 foot Minimum Vectoring Altitude(MVA) to a 6600 foot MVA. Before he turned [the military aircraft], another flight of [the military aircrafts] checked on and explained that they wanted a flight split and IFR clearances with the wingman going first. This caused the Trainee Controller to be late turning [the military aircraft] and he was nearing an 8000 MVA. The Trainee turned [the military aircraft] to a 310 heading and I prompted him to turn him farther to a 280 heading. [The military aircraft] was about a mile into the 8000 foot MVA before he had completed his turn and then about a mile later he entered the 6600 foot MVA on the final approach course and was later cleared for the approach. No low altitude alert was activated by the computer so no altitude alert was issued.

I think recognizing sooner that the volume/complexity of the traffic was overwhelming the Trainee (returning [the military aircraft] and their special requests, deteriorating weather, other arrival/departure traffic as well as coordinating the sequence with the Approach Radar North controller) and take control of the sector instead of offering guidance. Specifically, when he descended [the military aircraft] to 7000, I should have climbed him back up to 8000 in case frequency congestion prevented a timely turn onto the final approach course (as happened). I have only been his supervisor since Jan 1 and I had rarely watched him during his approach control On the Job Training even though I often work with him in the Tower and I think this contributed to my misunderstanding of his abilities at this stage of his training.

Synopsis

BOI TRACON controllers reported radar vectors were issued to an aircraft into an area below the MVA.