

ASRS Database Report Set

Inflight Weather Encounters

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

Update Number.....33.0

Date of UpdateJune 29, 2018

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

Number of New Records in Report Set50

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: 1537877 *(1 of 50)*

Synopsis

PC-12 pilot reported loss of altitude and airspeed control after encountering severe turbulence descending through 9,000 feet in the vicinity of CAE.

ACN: 1537607 *(2 of 50)*

Synopsis

The pilot of an MQ9 Unmanned Aerial Vehicle (UAV) reported that, while conducting a tactical mission, he had to abandon his control station during a thunderstorm, leaving the drone without a pilot at the controls for approximately one hour.

ACN: 1537058 *(3 of 50)*

Synopsis

C340 pilot reported a TFR incursion resulted after being unable to raise ATC on frequency prior to takeoff.

ACN: 1535138 *(4 of 50)*

Synopsis

B767 flight crew reported experiencing limited aileron control response that was later diagnosed as probable aileron cable icing.

ACN: 1534985 *(5 of 50)*

Synopsis

B737 Captain reported receiving a large and painful electrical shock when he placed his hand and wrist on the reverser/throttle quadrant.

ACN: 1534601 *(6 of 50)*

Synopsis

B787 flight crew reported concerns with the Flight Dynamics, Navigation, and Safety Systems.

ACN: 1533223 *(7 of 50)*

Synopsis

BE200 pilot lost control and ran off the runway due to a crosswind conditions during landing.

ACN: 1532542 *(8 of 50)*

Synopsis

A320 flight crew reported encountering severe turbulence in cruise and stated he could have better avoided the significant weather if his WSI WiFi signal had been more reliable.

ACN: 1532112 *(9 of 50)*

Synopsis

ALB controller reported having to vector an aircraft in snow squalls at night to a runway not served by a useable standard instrument approach.

ACN: 1531849 *(10 of 50)*

Synopsis

A320 flight crew reported returning to departure airport after experiencing loss of Yellow hydraulic system.

ACN: 1531789 *(11 of 50)*

Synopsis

Cessna 182 pilot reported operating VFR in IMC after being stuck above clouds with ATC assistance during the descent.

ACN: 1531783 *(12 of 50)*

Synopsis

M20TN pilot reported becoming disoriented when encountering turbulence creating an unusual attitude and inability to maintain directional control. Pilot reported no clear horizon on Garmin 1000 display.

ACN: 1531720 *(13 of 50)*

Synopsis

Embraer ERJ flight crew reported light turbulence followed by a violent right bank to approximately 40-45 degrees and altitude increased by approximately 1500 feet and a momentary stick shaker.

ACN: 1531650 *(14 of 50)*

Synopsis

Cessna 208 pilot reported losing the "Glass Panel" during cruise flight and immediately requested VFR conditions from ATC.

ACN: 1531496 *(15 of 50)*

Synopsis

C182 pilot reported a prop strike resulted when windshear was encountered at touchdown.

ACN: 1531262 *(16 of 50)*

Synopsis

B737 Flight Crew reported that after landing a passenger commented that the flight departed with snow on the wings.

ACN: 1530849 *(17 of 50)*

Synopsis

C172 pilot reported violating SFRA regulations during a weather deviation.

ACN: 1530841 *(18 of 50)*

Synopsis

SA227 pilot reported being unable to maintain altitude in severe turbulence and was unhappy with the level of support received from ATC.

ACN: 1530776 *(19 of 50)*

Synopsis

PA-28R instructor reported 300 feet altitude deviation occurred when the aircraft encountered either turbulence or wake from overflying jet aircraft.

ACN: 1530408 *(20 of 50)*

Synopsis

Boeing 737-700 Captain reported temporary loss of aircraft control during climb due to severe turbulence.

ACN: 1530142 *(21 of 50)*

Synopsis

Center controller reported the Traffic Management Unit Command Center refused to implement a flow control program for weather in the airspace causing the sector to become over-saturated and compromising safety.

ACN: 1529962 *(22 of 50)*

Synopsis

Air carrier flight crew reported a late runway change during approach due to heavy volume of traffic.

ACN: 1529864 *(23 of 50)*

Synopsis

Three ZHU Controllers reported a loss of separation event. Controllers reported factors were high volume, weather, and no traffic management program in effect.

ACN: 1529825 *(24 of 50)*

Synopsis

C150 instructor pilot reported an intermittent transponder and loss of heading information in IFR conditions, and returned to the field with some help from ATC.

ACN: 1529334 *(25 of 50)*

Synopsis

B757 flight crew reported a configuration error and a heading deviation during a go-around.

ACN: 1529219 *(26 of 50)*

Synopsis

EA50 pilot reported loss of control in flight at 10,000 feet after encountering severe turbulence.

ACN: 1529217 *(27 of 50)*

Synopsis

C208 pilot reported a runway excursion after hydroplaning during landing rollout on a wet runway.

ACN: 1528899 *(28 of 50)*

Synopsis

PA46 pilot reported receiving multiple heading and speed changes in IMC and turbulence in the vicinity of higher terrain while on an arrival corridor.

ACN: 1528311 *(29 of 50)*

Synopsis

B737-700 First Officer reported that they encountered moderate turbulence causing momentary loss of control.

ACN: 1527933 *(30 of 50)*

Synopsis

B757 Captain reported a track excursion occurred when they encountered wake turbulence on final approach to MEM Runway 18L.

ACN: 1527382 *(31 of 50)*

Synopsis

B767 flight crew reported they received a low altitude alert from ATL Tower while on the Runway 8L PAPI glidepath.

ACN: 1527257 *(32 of 50)*

Synopsis

Helicopter air taxi pilot reported entering instrument condition and an unusual attitude while operating with night vision goggles.

ACN: 1527009 *(33 of 50)*

Synopsis

C152 pilot reported a NMAC after departure with an opposite direction IFR arrival.

ACN: 1526742 *(34 of 50)*

Synopsis

Air Carrier Captain reported receiving two EGPWS terrain warnings on a visual approach to ROA Runway 24. Reporter continued the approach to landing because terrain was in sight.

ACN: 1526568 *(35 of 50)*

Synopsis

B737-700 Captain reported an aircraft overspeed, but suspected a faulty air data computer.

ACN: 1525989 *(36 of 50)*

Synopsis

Pilot reported descending below the glidepath on an RNAV approach in order to escape icing conditions.

ACN: 1525984 *(37 of 50)*

Synopsis

M20 pilot reported accumulating ice at the minimum vectoring altitude and resorted to a descent to VFR conditions.

ACN: 1525981 *(38 of 50)*

Synopsis

SR22 pilot reported entering instrument conditions on approach after a premature cancellation of instrument flight plan.

ACN: 1525793 *(39 of 50)*

Synopsis

B757 flight crew reported encountering either a lightning strike or static discharge while on approach, which rendered anti-ice system inoperative.

ACN: 1525537 *(40 of 50)*

Synopsis

Air Carrier Captain reported poor braking on landing in LEX on a snow covered runway that had been reported as "wet".

ACN: 1525374 *(41 of 50)*

Synopsis

ZMA Controller reported TMU and facility management forced controllers to work aircraft through weather.

ACN: 1525318 *(42 of 50)*

Synopsis

C162 pilot reported diverting through ice and instrument conditions due to a rough running engine.

ACN: 1525201 *(43 of 50)*

Synopsis

Turboprop pilot reported an unexpected terrain warning on approach to BHM just prior to the MDA.

ACN: 1525182 *(44 of 50)*

Synopsis

Boeing 767-300ER Captain reported diverting to an alternate airport after experiencing air data computer and pressurization system anomalies.

ACN: 1525083 *(45 of 50)*

Synopsis

Gulfstream Captain reported moderate to extreme turbulence while descending with a momentary loss of control.

ACN: 1524961 *(46 of 50)*

Synopsis

CRJ-900 Captain reported returning to the gate after rejecting the takeoff because of nil braking conditions on the takeoff runway.

ACN: 1524603 *(47 of 50)*

Synopsis

Air carrier flight crew reported priority handling for a fuel concern led to questions from the foreign authorities after landing.

ACN: 1524509 *(48 of 50)*

Synopsis

B737NG First Officer reported encountering windshear on two separate approaches into DEN, executing a go-around after the first encounter, but landing after the second, even though they received a terrain alert.

ACN: 1524477 *(49 of 50)*

Synopsis

B737 flight crew reported that due to runway clutter, ice accumulated in the flap and wheel well area preventing the flaps from completely retracting.

ACN: 1524470 *(50 of 50)*

Synopsis

B737-800 Captain reported flying through the localizer when they were distracted by a lightning strike.

Report Narratives

Time / Day

Date : 201804
Local Time Of Day : 1801-2400

Place

Locale Reference.Airport : CAE.Airport
State Reference : SC
Relative Position.Angle.Radial : 045
Relative Position.Distance.Nautical Miles : 25
Altitude.MSL.Single Value : 9000

Environment

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

Aircraft

Reference : X
ATC / Advisory.TRACON : CAE
Aircraft Operator : Personal
Make Model Name : PC-12
Crew Size.Number Of Crew : 2
Operating Under FAR Part : Part 91
Flight Plan : IFR
Mission : Passenger
Nav In Use : GPS
Nav In Use : FMS Or FMC
Flight Phase : Descent
Airspace.Class C : CAE

Person

Reference : 1
Location Of Person.Aircraft : X
Location In Aircraft : Flight Deck
Reporter Organization : Personal
Function.Flight Crew : Captain
Qualification.Flight Crew : Air Transport Pilot (ATP)
ASRS Report Number.Accession Number : 1537877
Analyst Callback : Attempted

Events

Anomaly.Deviation - Altitude : Excursion From Assigned Altitude
Anomaly.Deviation - Speed : All Types
Anomaly.Inflight Event / Encounter : Weather / Turbulence
Anomaly.Inflight Event / Encounter : Loss Of Aircraft Control

Detector.Person : Flight Crew

When Detected : In-flight

Result.Flight Crew : Took Evasive Action

Result.Flight Crew : Requested ATC Assistance / Clarification

Result.Flight Crew : Regained Aircraft Control

Assessments

Contributing Factors / Situations : Weather

Primary Problem : Weather

Narrative: 1

While descending through approximately 9,000 feet 25 NM northeast [of] CAE encountered severe turbulence. Slowed from 200 KIAS to 160 KIAS. Unable to maintain altitude or pitch. Maintained wings level best we could. Autopilot disconnected as soon as we entered. Noticed VSI was going from +/-2000 FPM, red arc for stalling was exceeding 150 kts on the airspeed indicator. Left encounter around 6,000 feet after bouncing from 9,000-7,000 back to 9,000 down to 6,000 feet. Asked ATC for deviations because our radar and NEXRAD was showing nothing. ATC noted nothing was showing on their radar within our area either; was advised to do whatever was necessary and advise of any further help was needed. After exiting, plane seemed fine, continued and landed with no further incident.

Synopsis

PC-12 pilot reported loss of altitude and airspeed control after encountering severe turbulence descending through 9,000 feet in the vicinity of CAE.

Time / Day

Date : 201804

Local Time Of Day : 1801-2400

Place

Locale Reference.ATC Facility : ZZZ.ARTCC

State Reference : US

Altitude.MSL.Single Value : 24000

Environment

Weather Elements / Visibility : Thunderstorm

Aircraft

Reference : X

Aircraft Operator : Government

Make Model Name : UAV - Unpiloted Aerial Vehicle

Operating Under FAR Part : Part 91

Flight Plan : IFR

Mission : Tactical

Flight Phase : Cruise

Route In Use : None

Airspace.Class A : ZZZ

Person

Reference : 1

Location Of Person : Hangar / Base

Reporter Organization : Government

Function.Flight Crew : Pilot Flying

Qualification.Flight Crew : Instrument

Qualification.Flight Crew : Commercial

Experience.Flight Crew.Total : 2000

Experience.Flight Crew.Last 90 Days : 50

ASRS Report Number.Accession Number : 1537607

Human Factors : Situational Awareness

Human Factors : Distraction

Events

Anomaly.Deviation - Procedural : Published Material / Policy

Anomaly.Deviation - Procedural : FAR

Anomaly.Inflight Event / Encounter : Weather / Turbulence

Detector.Person : Ground Personnel

When Detected : In-flight

Result.Flight Crew : Took Evasive Action

Result.Flight Crew : Regained Aircraft Control

Assessments

Contributing Factors / Situations : Company Policy

Contributing Factors / Situations : Human Factors

Contributing Factors / Situations : Weather
Primary Problem : Weather

Narrative: 1

MQ9 drone aircraft was on patrol in ZZZ valley. Thunderstorms were approaching the ground control station. The decision was made to evacuate the ground control station until the thunderstorms passed instead of returning the aircraft to the airport for landing. The MQ9 aircraft was without a pilot at the controls for approximately one hour. The mission was continued after the ground control station was re-manned despite the fact that there were numerous thunderstorms in the area.

Synopsis

The pilot of an MQ9 Unmanned Aerial Vehicle (UAV) reported that, while conducting a tactical mission, he had to abandon his control station during a thunderstorm, leaving the drone without a pilot at the controls for approximately one hour.

Time / Day

Date : 201804
Local Time Of Day : 0601-1200

Place

Locale Reference.Airport : F45.Airport
State Reference : FL
Relative Position.Angle.Radial : 080
Relative Position.Distance.Nautical Miles : 1
Altitude.AGL.Single Value : 200

Environment

Flight Conditions : Marginal
Weather Elements / Visibility : Thunderstorm
Weather Elements / Visibility.Visibility : 10
Light : Daylight
Ceiling.Single Value : 2400

Aircraft

Reference : X
ATC / Advisory.TRACON : PBI
Aircraft Operator : Personal
Make Model Name : Cessna 340/340A
Crew Size.Number Of Crew : 1
Operating Under FAR Part : Part 91
Flight Plan : IFR
Mission : Personal
Flight Phase : Initial Climb
Flight Phase : Takeoff
Route In Use : None
Airspace.TFR : PBI

Person

Reference : 1
Location Of Person.Aircraft : X
Location In Aircraft : Flight Deck
Reporter Organization : Personal
Function.Flight Crew : Single Pilot
Function.Flight Crew : Pilot Flying
Qualification.Flight Crew : Multiengine
Qualification.Flight Crew : Private
Qualification.Flight Crew : Instrument
Experience.Flight Crew.Total : 2500
Experience.Flight Crew.Last 90 Days : 40
Experience.Flight Crew.Type : 305
ASRS Report Number.Accession Number : 1537058
Human Factors : Communication Breakdown
Human Factors : Situational Awareness
Communication Breakdown.Party1 : Flight Crew

Communication Breakdown.Party2 : ATC
Analyst Callback : Completed

Events

Anomaly.Airspace Violation : All Types
Anomaly.Inflight Event / Encounter : Weather / Turbulence
Detector.Person : Flight Crew
When Detected : In-flight
Result.General : None Reported / Taken

Assessments

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

Narrative: 1

I filed an IFR flight plan [from] F45. I [flew] into F45 [earlier] instead of PBI because of the TFR and was reminded of it (TFR) by flight service. I was much more concerned about the deteriorating weather conditions both at departure and at most of the route of flight to destination. I had studied my route, been checking online weather and briefed and filed with weather brief.

I went to the airport 2 hours early. After preflight, I called clearance delivery, 120.825 and got no response. I tried departure at 128.3 and flight service on 122.4. I don't know if it was because of the weather but I could not get a response from any of them. Meanwhile I could hear all the commercial traffic and it seemed like everyone was asking for or announcing they had had to divert. Meanwhile I was watching my onboard weather (from two different sources) as the yellows and reds were building. I think I tried raising someone for at least 5 minutes. I thought the weather might be interfering with the radios on the ground, as I had never had a problem before. Many of the small airports I go to have no ground communications.

Anyway, between not being able to hail anyone and being anxious about the weather it occurred to me to take off and get my clearance in the air. I had not cleared the runway when the TFR popped back into my head. Too late to land. I called 128.3 at 200 feet, half a mile and was immediately given my clearance and a squawk code. The number to call came 5 minutes later. I was able to navigate the fairly bad weather but it was nothing like the dread of having [messed] up with the TFR.

Synopsis

C340 pilot reported a TFR incursion resulted after being unable to raise ATC on frequency prior to takeoff.

Time / Day

Date : 201804

Local Time Of Day : 0601-1200

Place

Locale Reference.ATC Facility : ZZZ.ARTCC

State Reference : US

Altitude.MSL.Single Value : 37000

Environment

Flight Conditions : VMC

Weather Elements / Visibility : Icing

Weather Elements / Visibility : Rain

Weather Elements / Visibility : Turbulence

Light : Night

Aircraft

Reference : X

ATC / Advisory.Center : ZZZ

Aircraft Operator : Air Carrier

Make Model Name : B767-200

Crew Size.Number Of Crew : 2

Operating Under FAR Part : Part 121

Flight Plan : IFR

Mission : Cargo / Freight

Flight Phase : Cruise

Airspace.Class A : ZZZ

Component

Aircraft Component : Aileron Control System

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 : First Officer

Function.Flight Crew : Pilot Flying

Qualification.Flight Crew : Air Transport Pilot (ATP)

ASRS Report Number.Accession Number : 1535138

Human Factors : Troubleshooting

Human Factors : Situational Awareness

Analyst Callback : Attempted

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 : 1534674
Human Factors : Situational Awareness
Human Factors : Troubleshooting

Events

Anomaly.Aircraft Equipment Problem : Critical
Anomaly.Inflight Event / Encounter : Weather / Turbulence
Detector.Person : Flight Crew
When Detected : In-flight
Result.General : Maintenance Action
Result.Flight Crew : Requested ATC Assistance / Clarification
Result.Flight Crew : FLC Override Automation
Result.Flight Crew : Overcame Equipment Problem
Result.Flight Crew : Landed in Emergency Condition
Result.Air Traffic Control : Provided Assistance

Assessments

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

Narrative: 1

[We departed early in the morning]. The first ATIS temperature read 7C and the second read 8C. It was raining so much that my socks were wet underneath my nearly waterproof shoes by the time I was done with the preflight inspection. Preflight, startup, taxi, and takeoff were relatively normal. We did have the engine cowl heats on during taxi and takeoff, and the wings on during much of the climb due to the temperatures and amount of precipitation. We did not get the ICE DET EICAS. We popped out of the tops at roughly FL180, and subsequently turned off the anti-ice equipment per procedure.

Approximately 1 hour 20 minutes into cruise flight at FL370 we heard the master caution beep and watched the "AUTOPILOT" message come up on the EICAS. I disconnected the autopilot with the switch on the yoke, and held the plane at altitude. We selected center command again, and the plane flew fine for a while - maybe 20 or 30 minutes. Then once again AUTOPILOT populated the EICAS screen. We selected the Left autopilot which eventually kicked off as well as the Right. In between each attempt, I flew for a few minutes basically maintaining altitude and flying straight on course. I didn't turn much, but by the time we had examined all 3 channels, the XTK was 0.1 off. In making this tiny correction, I noticed the roll axis of the yoke was stiff and commented to the Captain. The center autopilot had been successfully reengaged, and things progressed normally for quite some time.

We looked for guidance in the QRH, discussed what the issue might possibly be, and continued on the flight plan route for a while with no issues. We were over mountainous terrain at night with nasty weather, so we continued toward daylight, lower terrain,

slightly better weather, and more options for familiar airports where the company has operations. We were in smooth air at FL370, and lower was supposed to be more turbulent. We briefed that we would begin the descent early, get out of RVSM airspace, and troubleshoot more thoroughly with the company's input. Everything was normal as we approached, but we prepared to possibly hand-fly the aircraft.

The Captain utilized all available resources by asking a jumpseating pilot to sit up front and add a set of eyes and ears to the situation, informing ATC that we would like to exit RVSM airspace and be given some room from other aircraft to troubleshoot issues, then soon included the company and other resources. The company suggested that if the issue was the autopilot not disengaging, perhaps we should fly an autoland approach and just maintain a high level of vigilance for a possible go-around. [The Captain] turned to me and asked based on how the controls felt if I'd be comfortable with that. All of us in the cockpit were highly distrustful of the autopilot's capability, so with the autopilot engaged, so we thought we'd test it with a 10 degree turn to the left and then one to the right in heading mode.

As soon as I turned the heading bug, the autopilot kicked off. We both felt a serious binding in the control yoke. The Captain assigned me to continue flying, cover radio 1, and went to work continuing to troubleshoot with the company, and communicating with ATC, gathering info, formulating, and reformulating plans as information changed. [The Captain] tried using all available methods to disengage the autopilot including using the bar disconnect and the aileron trim knob to hopefully break the autopilot free, but had no effect. We checked hydraulic quantities and pressures. All normal. There were no warnings for any other systems.

The Captain contacted [ATC] and informed them of the degraded roll capability asking for direct to the airport and to give us more space from other aircraft. [The Captain] went back to talking to [Operations] to get weather for [possible alternates] - anywhere that had decent winds and ceilings. During that time, [ATC] called and said we'd be an emergency aircraft. I agreed, and communicated that with the Captain within a few seconds. [The Captain] communicated the fuel, souls on board, and all necessary information with ATC. [The Captain] also shared that [a nearby alternate] was OVC1500 with winds 150/17G23.

Flying the aircraft in a steady descent took a lot of effort and concentration. The most effective roll input was actually coming from the rudders, and the compensation required to maintain controlled flight was tedious, so we wanted to get better weather than that. Gusty crosswinds while maneuvering close to the ground did not sound optimal. [A second alternate] was reporting winds 130/12 with a 10,000 ft ceiling, so we headed there. The Captain explicitly asked [Operations] to verify the weather, the Tower, and the availability of emergency vehicle assistance, and they called back saying the Tower and emergency vehicles wouldn't be available for another 45 minutes. We didn't want to waste fuel and dwindle our options, so we headed back toward [original destination].

Heavy rain and gusty conditions were constant throughout the descent. ATC accommodated us with vectors to the ILS. The Captain advocated configuring for landing early, and only using 20 degrees of flaps for a little more speed and better aerodynamic control. I concurred, and we were configured to land by the fix prior to the final approach fix (Gear down, 20 Flaps, speedbrake armed, Max Autobrake). Up until that point, the Captain had been very busy with everything necessary to arrive there with all checklists and procedures complete, but then we were both able to focus completely on the landing, and [the Captain] began to ghost me in the controls (as previously discussed).

Somewhere around 4,000-6,000 feet, the temperatures began to rise up to +14 C then +18 C. I noticed the yoke was freeing up and allowing more movement in response to the wind. I commented and Captain said [he] could see and feel it. We touched down and came to a full stop. The emergency vehicles inspected the aircraft and after they didn't see anything obviously wrong with the aircraft, escorted us to the ramp. We parked, and maintenance came out to ask what happened, and began troubleshooting. They considered it most probable that the flight controls had iced up - possibly in the wheel well. Dropping the gear and configuring early may have aided the higher temperatures in clearing the ice out and providing greater flight control capability. Many thanks to all involved in making the outcome of this flight safe.

Hopefully maintenance can hunt down what exactly happened or froze up and figure out how to prevent that in the future. Maybe water entered an area it generally doesn't, or possibly an incorrect type of grease may have been used at some point.

Narrative: 2

After debriefing with more experienced individuals in Maintenance and Check Airman, it was considered more probable that the flight control cables had iced up in the wings or wheel well area. It is uncommon for autopilots to maintain control of an Axis when disengaged. By dropping the gear and configuring early, at 5,000 feet, we gave the cables in the wheel well the exposure time to unfreeze. We did consider icing and turned on the wing anti-ice, but its location in the leading edge was ineffective further back where the control cables run.

Synopsis

B767 flight crew reported experiencing limited aileron control response that was later diagnosed as probable aileron cable icing.

Time / Day

Date : 201804

Place

Locale Reference.Airport : ZZZ.Airport

State Reference : US

Altitude.AGL.Single Value : 0

Environment

Weather Elements / Visibility : Turbulence

Weather Elements / Visibility : Thunderstorm

Aircraft

Reference : X

ATC / Advisory.Ground : ZZZ

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

Nav In Use : FMS Or FMC

Flight Phase : Taxi

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 : Instrument

Qualification.Flight Crew : Air Transport Pilot (ATP)

Qualification.Flight Crew : Multiengine

Experience.Flight Crew.Total : 6610

Experience.Flight Crew.Type : 3208

ASRS Report Number.Accession Number : 1534985

Human Factors : Situational Awareness

Events

Anomaly.Aircraft Equipment Problem : Less Severe

Anomaly.Flight Deck / Cabin / Aircraft Event : Illness

Anomaly.Inflight Event / Encounter : Weather / Turbulence

Detector.Person : Flight Crew

When Detected : Taxi

Result.General : None Reported / Taken

Assessments

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

Narrative: 1

This is probably one of the most bizarre aviation events I've come [experienced] in years. Last night, we flew along a front of storms that went all the way from Cuba to Canada. Deviating west of the line until finally picking our way through on the descent, it was rough and sporty to say the least. Moderate precipitation and moderate turbulence, and we either were struck by lightning or had a static discharge during descent. First Officer was flying.

Here's what happened: First Officer lands, I take control of the aircraft around 80 knots, I turn at the high-speed taxiway, slow aircraft, and begin to taxi. I placed my right hand and wrist on top of the thrust reverser/throttle quadrant, kind of laying it on top in a resting type position, and BAM! I get shocked in a major way. I'm talking electrocution amount of charge ripping through my hand and wrist bones [and] extreme pain.

My wrist swelled up once we got to operations office, and was discolored at the point of contact. A day later, the bone part of my wrist still hurts. It's very stiff, but I can still use it with some pain. We were supposed to fly another leg last night, but ultimately went illegal as our inbound plane diverted due to that weather.

I am simply reporting this, because it is very unusual set of circumstances, and potentially could be a safety concern as it could have incapacitated me at the controls. I am curious if Boeing or Company has ever heard of this happening before, as it is a first for me.

Synopsis

B737 Captain reported receiving a large and painful electrical shock when he placed his hand and wrist on the reverser/throttle quadrant.

Time / Day

Date : 201804

Local Time Of Day : 1201-1800

Place

Locale Reference.ATC Facility : NFFF.ARTCC

State Reference : FO

Altitude.MSL.Single Value : 35000

Environment

Flight Conditions : IMC

Weather Elements / Visibility : Thunderstorm

Light : Daylight

Aircraft

Reference : X

ATC / Advisory.Center : NFFF

Aircraft Operator : Air Carrier

Make Model Name : B787 Dreamliner Undifferentiated or Other Model

Crew Size.Number Of Crew : 3

Operating Under FAR Part : Part 121

Flight Plan : IFR

Mission : Passenger

Nav In Use : FMS Or FMC

Flight Phase : Cruise

Route In Use : Oceanic

Component

Aircraft Component : Weather Radar

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 : Captain

Qualification.Flight Crew : Instrument

Qualification.Flight Crew : Multiengine

Qualification.Flight Crew : Air Transport Pilot (ATP)

Experience.Flight Crew.Total : 22000

Experience.Flight Crew.Type : 1131

ASRS Report Number.Accession Number : 1534601

Human Factors : Human-Machine Interface

Human Factors : Training / Qualification

Human Factors : Workload

Human Factors : Communication Breakdown

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

Person : 2

Reference : 2
Location Of Person.Aircraft : X
Location In Aircraft : Flight Deck
Reporter Organization : Air Carrier
Function.Flight Crew : Pilot Not Flying
Function.Flight Crew : First Officer
Qualification.Flight Crew : Air Transport Pilot (ATP)
Qualification.Flight Crew : Multiengine
Qualification.Flight Crew : Instrument
Experience.Flight Crew.Total : 11677
Experience.Flight Crew.Last 90 Days : 200
Experience.Flight Crew.Type : 1954
ASRS Report Number.Accession Number : 1535016
Human Factors : Workload
Human Factors : Training / Qualification
Human Factors : Human-Machine Interface
Human Factors : Communication Breakdown
Communication Breakdown.Party1 : Flight Crew
Communication Breakdown.Party2 : ATC
Communication Breakdown.Party2 : Dispatch

Events

Anomaly.Aircraft Equipment Problem : Less Severe
Anomaly.Deviation - Track / Heading : All Types
Anomaly.Deviation - Procedural : Published Material / Policy
Anomaly.Inflight Event / Encounter : Weather / Turbulence
Detector.Person : Flight Crew
When Detected : In-flight
Result.Flight Crew : Overcame Equipment Problem
Result.Flight Crew : FLC Overrode Automation
Result.Air Traffic Control : Provided Assistance

Assessments

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

Narrative: 1

While transiting an area of weather, we were forced to utilize the Weather Deviation without a clearance procedure as outlined in the FOM and Quick Reference Guide. We were not the only ones that night, either. Air Carrier behind us, also required to utilize the procedure.

At XA15Z we received NFFF/NADI SIGMET Number 1 showing stationary weather across our route extending as far east as S13E166 and as far west as S12W175 with tops to FL480. This effectively bisected our route for hundreds of miles both left and right of our

course. As we approached the line of weather at FL350, It painted from behind and to the left (7:00-8:00 [o'clock]) across our route to our 1-2:00 position (both to the edges of effective radar coverage). At XB20Z, we received NFFF SIGMET Number 4 altering slightly the geographic points of SIGMET Number 1. Our radar display clearly favored a right deviation, so at XB24Z we initially asked for and received clearance for up to Right 70 NM. As we continued north eastbound, it quickly became necessary for larger deviations of 120 and finally 128 (XB32Z and XB45Z respectively), the maximum that NFFF could approve. Radar returns were growing and appearing further and further ahead of us as the storms reached the edge of our radar range (200 NM or so).

While this was taking place (and with a dynamic and rapidly changing weather situation/picture, seating our Flight Attendants, etc.) we realized that for deviations greater than 99 NM, we needed to go to heading select mode, since the FMC (and therefore LNAV) will not accept greater than 99 NM offsets. This greatly increased our workload. Worse yet, beyond this distance (99 NM) we were not able to precisely determine 128 NM, our cleared limit, as OFFSET DISTANCE IS NO LONGER DISPLAYED IN THE FMC. As we passed 99 NM, right off course, the Prog. 2 page showed no usable data. To get around this limitation, we tried deleting the (99 NM FMC) offset completely in an effort to show a distance from the original route rather than from the 99 NM (FMC) offset, to no avail. Once beyond 99 NM off original course, the FMC DOES NOT SHOW OFFSET DISTANCE (at least on the Prog. page 2)! We therefore had to utilize the map range marks on the ND (at low ranges) as an approximation (while selecting at times more appropriate radar ranges), creating significant task saturation. As we approached what I estimated to be 128 NM right, I complied with the weather deviation without a clearance procedure including climb of 300 feet, lights on, etc., as we still could not safely come back left. NFFF subsequently cleared us block 350-360, perhaps seeing that we had climbed 300 feet. NFFF was also asking if we had new routing in mind since he could not approve greater than 128 NM. We felt that with the radar display limited in distance and our task saturation, that we did not have time for a lengthy discussion with dispatch regarding routing options, nor did we have time then to figure it out on our own. Dispatch was sending messages at roughly the same time indicating where he saw lightning, but had indicated earlier that his radar picture of the area was not that great.

I finally found an area that, while not ideal, was at least our first and perhaps only hole. I believe this to have been somewhere near our clearance limit of R128 NM, but was unable to exactly determine the distance from course, for the already mentioned reasons. I took the left turn and we were able to transit the remaining affected area with a reasonable ride. Around this time we received NFFF SIGMET Number 5 (issued at XC28Z) changing the boundaries of the affected airspace to slightly further both east and west. However, by this time we were well in the battle and had begun our correction back to our course.

Obviously, the weather around us was changing rapidly. Perhaps this was why we had little warning of it prior to leaving [departure airport]. Several company aircraft transited the area in the hours before we did, with no PIREPs, so this further illustrates the dynamic nature of the weather that evening.

I have two concerns with this event: First, the FMC limitations that I illustrated dramatically increased our workload. When combined with the rapidly changing weather picture, we had limited bandwidth to coordinate with dispatch for a revised routing beyond the clearance limit of 128 NM right of course. Our job at that point was to keep us on a heading away from harm's way.

Secondly, the B787 Multi-Scan radar is completely different from what we have operated

in the past. I found this out during my first few months on the line with the 787, BUT DID NOT HAVE ANY SIGNIFICANT TRAINING ON IT. It tends to paint weather as more intensely in auto mode than previous radar models I have used (727, 737, 757/767, and 777). I knew this on our flight; however, being in the Equatorial Convergence Zone, my desire was to err on the side of caution, in case of dry-top storms. Using various manual mode settings to see something more comparable to my past experience definitely added to an already task saturated event. It was only through using manual mode in various configurations that we were able to find our "hole" to fly through. I ENCOURAGE COMPANY TO DEVELOP A COMPREHENSIVE TRAINING COURSE on the differences of this radar and how to most efficiently utilize its capabilities.

Narrative: 2

[Report narrative contained no additional information.]

Synopsis

B787 flight crew reported concerns with the Flight Dynamics, Navigation, and Safety Systems.

Time / Day

Date : 201804
Local Time Of Day : 1201-1800

Place

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

Environment

Flight Conditions : VMC
Weather Elements / Visibility.Visibility : 6
Weather Elements / Visibility.Other
Light : Daylight
Ceiling.Single Value : 12000
RVR.Single Value : 4000

Aircraft

Reference : X
Aircraft Operator : Personal
Make Model Name : Super King Air 200
Crew Size.Number Of Crew : 1
Operating Under FAR Part : Part 91
Flight Plan : VFR
Mission : Personal
Flight Phase : Landing
Route In Use : Visual Approach

Person

Reference : 1
Location Of Person.Aircraft : X
Location In Aircraft : Flight Deck
Reporter Organization : Personal
Function.Flight Crew : Pilot Flying
Function.Flight Crew : Single Pilot
Qualification.Flight Crew : Instrument
Qualification.Flight Crew : Commercial
Qualification.Flight Crew : Multiengine
Experience.Flight Crew.Total : 2166
Experience.Flight Crew.Last 90 Days : 7
Experience.Flight Crew.Type : 803
ASRS Report Number.Accession Number : 1533223

Events

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

Assessments

Contributing Factors / Situations : Human Factors

Contributing Factors / Situations : Weather

Primary Problem : Weather

Narrative: 1

Upon Landing on runway 4, the aircraft veered left due to a gusting wind. Left main grabbed the soft grass just along runway. Aircraft pulled a bit further to left and stabilized in soft grass and mud just along side the runway.

Synopsis

BE200 pilot lost control and ran off the runway due to a crosswind conditions during landing.

Time / Day

Date : 201804
Local Time Of Day : 1201-1800

Place

Locale Reference.ATC Facility : ZJX.ARTCC
State Reference : FL
Altitude.MSL.Single Value : 32000

Environment

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

Aircraft

Reference : X
ATC / Advisory.Center : ZJX
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 : Cruise
Airspace.Class A : ZJX

Component

Aircraft Component : Electronic Flt Bag (EFB)
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 : Captain
Function.Flight Crew : Pilot Not Flying
Qualification.Flight Crew : Air Transport Pilot (ATP)
Experience.Flight Crew.Total : 17000
Experience.Flight Crew.Last 90 Days : 200
Experience.Flight Crew.Type : 1165
ASRS Report Number.Accession Number : 1532542
Analyst Callback : Completed

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 : 1251
Experience.Flight Crew.Type : 1251
ASRS Report Number.Accession Number : 1532557

Events

Anomaly.Aircraft Equipment Problem : Less Severe
Anomaly.Inflight Event / Encounter : Weather / Turbulence
Detector.Person : Flight Crew
Were Passengers Involved In Event : N
When Detected : In-flight
Result.Flight Crew : Overcame Equipment Problem

Assessments

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

Narrative: 1

Flight crew briefed planned routing up the east coast of Florida to avoid narrow strong line of thunderstorms moving onshore and across Florida southeast of the panhandle. Storms were initially forecast to be weaker but developed quickly with tops near FL350. ATC rerouted us up west side of Florida to CTY SZW before turning to ZZZ. WSI at the time forecasted gaps and breaks along the new route that we could navigate through more easily than the rapidly solidifying line to the east. We coordinated this new route with Dispatch, and Flight attendants were briefed that we would plan to have them delay service until we passed the weather and that we would communicate a time for them to be in their jumpseats. Passengers also informed of the safety delay in service for the forecasted weather and possible associated turbulence.

On taxi out we had to re-contact ATC for additional route verification; apparently when the Dispatcher updated our new route they only changed the revised segment to ZZZ and deleted everything after causing a plan that had us proceeding direct to ZZZ1 and descending to FL260 passing ZZZ. We coordinated the original routing after ZZZ with ATC and we took off after a 15 minute delay sorting out the clearance issue. Dispatch informed of the error and they updated our flight plan to provide us with an accurate release. A final look at WSI showed the line of narrow thundershowers were building higher and stronger to the east and lower and less organized to the west of and approaching our planned route to SZW then ZZZ. Frustratingly, neither one of us had adequate Wi-Fi signal to keep a continuous WSI update - this has been a common issue I hope gets rectified soon.

Shortly after reaching our cruise alt of FL320, ATC advised a turn to the northeast to CTY VOR then SZW as the storms moving onshore in the southwest Florida panhandle were intensifying. Approximately 80 miles, or 10 minutes, prior to reaching CTY VOR I directed the FAs to be seated and made a PA to the passengers reminding them to stay seated with their seatbelts fastened as well and that it might take up to 30 minutes before we could safely let them back up, weather permitting.

Onboard weather radar showed a solid yet narrow band of moderate rain just northwest of CTY with last forecasted tops of FL250 with higher cells to the west and east of our path. We were IMC passing through the area and following another aircraft on the same routing and altitude with no adverse reports being given. We saw our aircraft send a smooth report. [Five minutes later] we encountered what we considered to be continuous moderate turbulence lasting 20 seconds or so. Autoflight stayed engaged and we had +/- 100 ft deviation until exiting back to smooth air. We observed the OAT change from -46c approaching the weather to -26c during the event and back to -42c passing to the other side. I had the FAs check in to confirm no injuries or damage.

We received an automatically generated severe report with an RMSG (calculation of average load in a turbulence event) of 0.4. We confirmed that our aircraft did not produce a [report] that would require a maintenance entry and verified that with an ACARS dialogue with [Maintenance] and Dispatch and MOD turbulence PIREP was made at that time as well. We had a clear communication with Dispatch that no injuries or damage resulted from the turbulence event and that we would continue on as planned.

I believe we could have had better insight into the rapidly intensifying line had we had uninterrupted access to WSI. Our last update was several minutes before reaching the weather. As we passed through the line our onboard weather radar depicted the intensifying cells off to our west, and we coordinated a turn away to the northeast to compensate, but the event was short-lived and we proceeded on course back to SWZ with smooth air.

Narrative: 2

Following several reroutes for a broken line of thunderstorms, we departed and were given another reroute airborne to CTY SZW. We had the passengers and FAs seated and briefed for possible turbulence. 80 NE of CTY we were deviating to the right per our aircraft radar, ATC, and previous aircraft who made the transition. We encountered Moderate turbulence for about 10-15 seconds. We received a TAPS report from our aircraft of severe turbulence. After the turbulence we had the FAs check in. Everyone in back was ok and still seated. We notified dispatch and maintenance. Maintenance said no wright up was required after checking aircraft data and no load data was displayed. We continued the flight the rest of the flight was smooth and without any problems.

Synopsis

A320 flight crew reported encountering severe turbulence in cruise and stated he could have better avoided the significant weather if his WSI WiFi signal had been more reliable.

Time / Day

Date : 201804

Local Time Of Day : 0001-0600

Place

Locale Reference.ATC Facility : ALB.TRACON

State Reference : NY

Environment

Light : Night

Aircraft

Reference : X

ATC / Advisory. TRACON : ALB

Aircraft Operator : Air Carrier

Make Model Name : EMB ERJ 145 ER/LR

Crew Size.Number Of Crew : 2

Operating Under FAR Part : Part 121

Flight Plan : IFR

Mission : Passenger

Flight Phase : Descent

Route In Use : Vectors

Airspace.Class C : ALB

Person

Reference : 1

Location Of Person.Facility : ALB.TRACON

Reporter Organization : Government

Function.Air Traffic Control : Approach

Qualification.Air Traffic Control : Fully Certified

ASRS Report Number.Accession Number : 1532112

Human Factors : Other / Unknown

Human Factors : Time Pressure

Events

Anomaly.ATC Issue : All Types

Anomaly.Deviation - Procedural : Published Material / Policy

Anomaly.Inflight Event / Encounter : Weather / Turbulence

When Detected : In-flight

Result.Flight Crew : Requested ATC Assistance / Clarification

Result.Air Traffic Control : Issued New Clearance

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

The RNAV approach to Runway 28 was not authorized at night. We were conducting VOR approaches to Runway 28. The weather all shift had been variable with snow squalls moving through. In between squalls the ceiling and visibility supported visual approaches. During the snow squalls, visibility dropped to as low as 1 SM. Winds were very strong and gusty out of the west. I was working all positions from the tower cab during the mid-shift.

[The aircraft] checked on with current ATIS and I advised them to expect the VOR approach to Runway 28. The pilot stated they "didn't have the charts for that approach". I read them the current wind and offered the ILS to Runway 1 as an alternative. They could not accept Runway 1 due to the winds. The pilot asked if the visual approach to Runway 28 was available. I said it was and began vectoring the aircraft for the visual approach.

During the next few minutes a snow squall started moving through and visibility started to deteriorate. I turned up the lights as high as possible and vectored the aircraft to approach the airport from the south (the snow squall appeared out the windows to be more to the north). The aircraft reported the field in sight and I cleared them for the visual approach. They conducted the visual approach and landed without incident despite the deteriorating conditions. During final approach and landing, visibility was approximately 4 SM in light snow.

This did not feel like a safe operation. The pilot should have the charts available to conduct all instrument approaches at the destination airport. We need the RNAV approach to Runway 28 to be authorized at night again. The RNAV approach produces consistent approaches from the aircraft and makes for a much safer operation.

Using the VOR approach to Runway 28 is not a safe operation. Pilots do not consistently fly the approach properly. I estimate approximately 50% of the pilots do not track the final approach course properly. Some pilots wander left and right of course while others fly a steady track but are offset from the proper approach course by a half mile. The VOR approach course is not aligned with the runway which requires the pilots to maneuver on short final at low altitude to line up with the runway. I don't know if the radio signal from the VOR is not reliable enough to provide consistent approaches or if the pilots don't get enough experience with VOR approaches to be proficient but we should not be relying on the VOR approach as our only option for Runway 28.

Synopsis

ALB controller reported having to vector an aircraft in snow squalls at night to a runway not served by a useable standard instrument approach.

Time / Day

Date : 201804

Local Time Of Day : 0601-1200

Place

Locale Reference.Airport : ZZZ.Airport

State Reference : US

Altitude.AGL.Single Value : 0

Environment

Flight Conditions : VMC

Light : Daylight

Aircraft

Reference : X

ATC / Advisory.Tower : ZZZ

Aircraft Operator : 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 : Takeoff

Component

Aircraft Component : Hydraulic Main System

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 : Captain

Function.Flight Crew : Pilot Not Flying

Qualification.Flight Crew : Air Transport Pilot (ATP)

Experience.Flight Crew.Total : 27000

Experience.Flight Crew.Last 90 Days : 220

Experience.Flight Crew.Type : 14400

ASRS Report Number.Accession Number : 1531849

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 : 1531581

Events

Anomaly.Aircraft Equipment Problem : Less Severe
Anomaly.Inflight Event / Encounter : Weather / Turbulence
Detector.Automation : Aircraft Other Automation
Detector.Person : Flight Crew
When Detected : In-flight
Result.General : Maintenance Action
Result.Flight Crew : Landed As Precaution
Result.Flight Crew : Requested ATC Assistance / Clarification
Result.Flight Crew : Returned To Departure Airport
Result.Air Traffic Control : Issued New Clearance

Assessments

Contributing Factors / Situations : Aircraft
Primary Problem : Aircraft

Narrative: 1

Around 40 knots we had a spurious ECAM which went away so quickly I could not tell what it was. This occurred again around 70 knots but again went away before I could tell what it was. I felt in both instances it was safer to continue because I could not identify what and if there was a problem. Anyone with experience on the Airbus knows that they occasionally have spurious ECAMs where these ECAMs aren't real issues. We also have been warned to guard against aborting for an ECAM regarding not entering a flex temperature and then aborting because of the ECAM regarding not having the thrust levers in the TOGA detent. So, we need to identify what the problem is first before aborting. It seemed the safest and least risk was to continue unless it was a real ECAM (of which I did not know what it even was). As I thought about it later, the ECAM probably was inhibited when we reached 80 knots and then reappeared at 1500 feet when the inhibit was released.

Anyway, not long after takeoff we had a HYD Y RSVR LO LVL ECAM. First Officer took the airplane and radios. After doing the steps on the ECAM we [advised] Departure and asked to return. I then sent an ACARS message to Dispatch "7700 loss of Y hydraulics returning" or something to that effect. I then completed the ECAM steps and went to the QRH using the iPad. The problem was that it was bumpy so I was unable to get to the HYD Y RSVR LO LVL using the iPad because I could not type the ECAM title in the search window nor could I select it from the index. My fingers would not land where I wanted them to land. This is a great risk and safety issue if we were to take the paper version out. It was almost impossible to use the iPad in this case. Going to the paper QRH was the only way I could in a reasonable period of time get to the proper procedure. Later, my FO was having similar problems getting to the overweight checklist in the iPad. [The FO] was meanwhile doing a great job extending our downwind so we could complete all our checklists and procedures and communicating with ATC. I also spoke with the flight attendants and described the problem and that an evacuation was not planned and stressed that we expected a normal landing. I also said that fire trucks would come around the airplane after landing and that we would be on the ground in about 15 minutes. I then made a PA to the passengers.

Next, as I was getting the QRH out to look further at the procedure in the QRH (including

the landing distance page) I also did a "CALL ME" to Dispatch. I checked and saw we had accumulator pressure and briefed the inoperative systems. The fuel penalty part was not applicable. About the same time this was completed I received a message to contact Dispatch. We were finally able to talk and told them the issue. [Maintenance] confirmed we were doing the right QRH procedure and asked about being overweight. I said we were and had looked at the overweight checklist. It was [the FO's] leg and knew he did a great job so I allowed him to make the landing. I briefed him that I would read out every foot as we landed so we could land as soft as possible. We landed normally and so smoothly it was one of those "are we on the ground yet" landings. We were met by mechanics and two from the flight office. We were so involved with all of this that I forgot to write up the mechanical failure. When I got to the new airplane I realized my mistake and called [Maintenance] to make sure everything had been entered and was assured that had taken care of that.

Narrative: 2

[Report narrative contained no additional information.]

Synopsis

A320 flight crew reported returning to departure airport after experiencing loss of Yellow hydraulic system.

Time / Day

Date : 201804
Local Time Of Day : 1201-1800

Place

Locale Reference.Airport : ZZZ.Airport
State Reference : US
Altitude.MSL.Single Value : 5500

Environment

Flight Conditions : Mixed
Weather Elements / Visibility : Cloudy
Weather Elements / Visibility.Visibility : 10
Light : Daylight
Ceiling.Single Value : 2000

Aircraft

Reference : X
ATC / Advisory.TRACON : ZZZ
Aircraft Operator : Personal
Make Model Name : Skylane 182/RG Turbo Skylane/RG
Crew Size.Number Of Crew : 1
Operating Under FAR Part : Part 91
Flight Plan : None
Mission : Personal
Nav In Use : GPS
Flight Phase : Descent
Flight Phase : Cruise
Route In Use : Direct
Airspace.Class D : ZZZ
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 : Private
Experience.Flight Crew.Total : 720
Experience.Flight Crew.Last 90 Days : 5
Experience.Flight Crew.Type : 400
ASRS Report Number.Accession Number : 1531789
Human Factors : Training / Qualification
Human Factors : Situational Awareness

Events

Anomaly.Deviation - Procedural : FAR
Anomaly.Inflight Event / Encounter : Weather / Turbulence

Anomaly.Inflight Event / Encounter : VFR In IMC
Detector.Person : Flight Crew
Detector.Person : Air Traffic Control
When Detected : In-flight
Result.Flight Crew : Diverted
Result.Flight Crew : Requested ATC Assistance / Clarification
Result.Flight Crew : Landed in Emergency Condition
Result.Air Traffic Control : Provided Assistance
Result.Air Traffic Control : Issued New Clearance

Assessments

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

Narrative: 1

We departed the Airport with full fuel (4-1/2 hours usable) beneath an overcast layer of approximately 4,000 feet MSL, on a heading of 008 degrees on my GPS. I set cruise at 3,300 MSL and contacted Approach to request Flight Following. They asked if I could climb to 5,500 MSL and I responded with 'negative until I can get above the cloud layer'. They advised that they could not pick me up on radar below 5,500 feet MSL, continue on VFR, and set transponder to VFR 1200, at present altitude of 3,300 feet MSL.

North of my position, clouds were scattered allowing me to climb to 5,500 feet MSL to benefit from Flight Following. I contacted Approach and requested Flight Following, and was instructed [with a] squawk. Enroute I was handed off to approach through a series of frequencies. By this time, the cloud layer had changed to complete overcast below us. I requested handoff, as I was going to need assistance in finding a hole in the clouds to transition through. I was then handed off to Next Controller. I advised of the need for assistance to get through the clouds and requested information on how far west could I go if necessary to find scattered clouds. The controller advised overcast with ceilings at 1,200 to 1,500 MSL and asked if I was IFR qualified and equipped, as they did not have radar capability to determine cloud coverage. My reply was 'negative' to both. At this point, I was directed to change my heading to 320 while we considered approach options. I was also asked how much fuel I had on board, to which I replied approximately 1-1/2 to two hours of usable. Momentarily, I was advised that they were turning me over to ZZZ and to tune to ZZZ Approach.

Upon contact with ZZZ Approach, I was asked what type of navigation equipment I had on board, fuel remaining, IFR experience and number of souls on board. I responded with having ForeFlight on my iPad and a Garmin 250XL, approximately 1-1/2 hours of usable fuel, IFR experience limited to flight review sessions and two souls on board. At that point, the controller advised he was identifying us as an emergency and would talk me through the set up for descent through the clouds and the approach. He advised of possible icing conditions and recommended the application of carb heat, to which I complied. We broke through the cloud layer at approximately 2,000 feet MSL and I advised that I could see the ground but had basically zero forward visibility. The controller instructed me through additional power reductions and the use of flaps after which I had the runway in sight. Touch down, landing and roll out were uneventful.

I was instructed to stay on the present frequency and follow the emergency response vehicle to the FBO for parking. I was then instructed to switch to ground control frequency

and to continue following the emergency response vehicle. Upon parking at the FBO, I asked ground control if they were through with me and they responded with 'yes'. We were then met at the plane by a fireman who asked if we were all Okay, to which we responded, 'yes'. He asked how high above the cloud layer I had been and I replied with 'from 1,000 to 1,500 feet'. I asked him if any report or paperwork needed to be filled out and was advised that the controller may be able to answer that question. We were then greeted by the controller who had stepped us through the process and said he was the one I had been talking to. He asked if we were Okay, to which we replied 'yes'. He then offered suggestions on how to be better prepared for this type of situation and was very cordial, polite, and professional. I asked if there were any reports I needed to file and he said he was not aware of any since no incident or damage had occurred. I then contacted my CFI and shared our experience with him. He suggested I file this report and we made arrangements to initiate IFR certification.

Synopsis

Cessna 182 pilot reported operating VFR in IMC after being stuck above clouds with ATC assistance during the descent.

Time / Day

Date : 201803

Local Time Of Day : 1201-1800

Place

Locale Reference.ATC Facility : ZLA.ARTCC

State Reference : CA

Altitude.MSL.Single Value : 23000

Environment

Flight Conditions : IMC

Weather Elements / Visibility : Turbulence

Light : Daylight

Aircraft

Reference : X

ATC / Advisory.Center : ZLA

Aircraft Operator : Personal

Make Model Name : M-20 TN Acclaim

Crew Size.Number Of Crew : 1

Operating Under FAR Part : Part 91

Flight Plan : IFR

Mission : Personal

Flight Phase : Cruise

Airspace.Class A : ZLA

Person

Reference : 1

Location Of Person.Aircraft : X

Location In Aircraft : Flight Deck

Reporter Organization : Personal

Function.Flight Crew : Single Pilot

Qualification.Flight Crew : Instrument

Qualification.Flight Crew : Private

Experience.Flight Crew.Total : 2238

Experience.Flight Crew.Last 90 Days : 15

Experience.Flight Crew.Type : 1688

ASRS Report Number.Accession Number : 1531783

Human Factors : Human-Machine Interface

Human Factors : Confusion

Events

Anomaly.Deviation - Altitude : Excursion From Assigned Altitude

Anomaly.Deviation - Track / Heading : All Types

Anomaly.Inflight Event / Encounter : Weather / Turbulence

Anomaly.Inflight Event / Encounter : Loss Of Aircraft Control

Detector.Person : Flight Crew

When Detected : In-flight

Result.Flight Crew : Regained Aircraft Control
Result.Flight Crew : Became Reoriented

Assessments

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

Narrative: 1

When level at flight level 230 I encountered an area of moderate turbulence. I knew I was passing through an area of weather based on NEXRAD data displayed on the G1000 MFD. At that altitude I was initially over the top of the weather in and out of a cirrus appearing cloud layer. ATC was particularly busy at this time with landing and departing traffic from Las Vegas and aircraft requesting variances due to this area of weather. While in IMC, when checking my engine EGT status I inadvertently touched the autopilot switch, due to my arm movement in turbulence, on the panel turning off the auto pilot. The aircraft was immediately put into an unusual position. With the moderate to now occasional severe turbulence I was having difficult time re-orienting my position and situational awareness. During this period, I was unable to maintain altitude assignment by ATC. I was given a block altitude assignment by ATC to help with the situation. In addition, I was unable to maintain directional control. The physical effects of turbulence and disorientation had a significant disorienting result. Another point of my concentration was to avoid over stressing the airframe in the turbulent conditions. One factor that I felt, in retrospect, was contributing to this difficulty was the synthetic vision capability of the G1000. Though an excellent feature in general flight conditions it seemed to add to my disorientation as there was no clear horizon to identify with on the PFD. The horizon line on the Garmin PFD is thin and I did not appreciate that very well in these conditions. The flight director feature was not something I was able to appreciate in these conditions as well. My take away on this experience is to be better prepared for changing over to hand control from autopilot, work on improving my use of the G1000 system features for orientation, consider weather conditions and requesting variances of direction and altitude for avoidance of potential turbulent conditions despite communications congestion.

Synopsis

M20TN pilot reported becoming disoriented when encountering turbulence creating an unusual attitude and inability to maintain directional control. Pilot reported no clear horizon on Garmin 1000 display.

Time / Day

Date : 201804

Local Time Of Day : 1801-2400

Place

Locale Reference.ATC Facility : ZZZ.ARTCC

State Reference : US

Altitude.MSL.Single Value : 36500

Environment

Flight Conditions : Marginal

Light : Night

Aircraft

Reference : X

ATC / Advisory.Center : ZZZ

Aircraft Operator : Air Carrier

Make Model Name : EMB ERJ 170/175 ER/LR

Crew Size.Number Of Crew : 2

Operating Under FAR Part : Part 121

Flight Plan : IFR

Mission : Passenger

Nav In Use : FMS Or FMC

Flight Phase : Cruise

Airspace.Class A : ZZZ

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 : 1531720

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 Not Flying

Qualification.Flight Crew : Air Transport Pilot (ATP)

ASRS Report Number.Accession Number : 1531723

Events

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

Assessments

Contributing Factors / Situations : Weather
Primary Problem : Weather

Narrative: 1

We were filed and assigned FL350, we were experiencing light turbulence with occasional moderate, we called ATC to try and get a better ride at FL370 but the ride was worse so we requested a return to FL350, the ride had not changed from when we were there earlier. We were not painting anything significant on the radar and thought we would pass the weather with nothing more than we had already had. Approximately 5-10 min after we returned to FL350, we experienced a violent right bank to approximately 40-45 degrees (felt like a lot more) and altitude increased by approximately 1500 feet and a momentary shaker. The lowest airspeed I observed was around 210 KIAS and about Mach .70, we were assigned FL370 so we climbed up and leveled off there, we still had some turbulence after that but not anything like we had in the moments prior. We continued to the destination. There were no injuries of flight attendants or passengers. ATC had advised us that the route at all altitudes was light to moderate at all altitudes. The dispatcher planned the route more east away from the worst of the line of thunder storms.

Narrative: 2

[Report narrative contained no additional information.]

Synopsis

Embraer ERJ flight crew reported light turbulence followed by a violent right bank to approximately 40-45 degrees and altitude increased by approximately 1500 feet and a momentary stick shaker.

Time / Day

Date : 201804
Local Time Of Day : 0601-1200

Place

Locale Reference.ATC Facility : ZZZ.TRACON
State Reference : US
Altitude.MSL.Single Value : 7000

Environment

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

Aircraft

Reference : X
ATC / Advisory.TRACON : ZZZ
Aircraft Operator : Air Taxi
Make Model Name : Caravan 208B
Crew Size.Number Of Crew : 1
Operating Under FAR Part : Part 135
Flight Plan : IFR
Mission : Cargo / Freight
Nav In Use : GPS
Flight Phase : Cruise
Airspace.Class E : ZZZ

Component

Aircraft Component : EICAS/EAD/ECAM
Aircraft Reference : X
Problem : Failed

Person

Reference : 1
Location Of Person.Aircraft : X
Location In Aircraft : Flight Deck
Reporter Organization : Air Taxi
Function.Flight Crew : Captain
Qualification.Flight Crew : Commercial
ASRS Report Number.Accession Number : 1531650

Events

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

Result.Flight Crew : Requested ATC Assistance / Clarification
Result.Air Traffic Control : Provided Assistance

Assessments

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

Narrative: 1

I had reached cruising altitude at 7,000 feet and was IMC. No issues prior to that point. Autopilot was engaged and about 10 minutes into the cruise, the aircraft began a gradual lean to the left 20-30 degrees. I reached down to adjust the aileron trim when I caught a flash from the panel. I was not looking directly at the G600 but suspect the flash came from there. As I looked at the G600 to identify the flash, the aircraft began an un-commanded turn to the right. Garmin 530 showed 70 degrees +/- off course. This all happened in a space of less than 30 seconds. At this point, I disengage the autopilot and requested an immediate descent from Approach to get to VMC. I informed the controller I had lost my glass panel and needed VFR conditions. Controller directed me to descend to 4,700 feet and gave me directions to [an alternate airport]. I broke out at around 5,000 feet and felt the airplane was safe in VMC, so I declined [the diversion and] wanted to head direct to [the destination airport]. Controller passed me onto Center and let me know she had informed them that my glass panel had failed. As I got closer to [the destination airport], the ceilings started to come down and I had to continue to descend to maintain VFR. Eventually I was stuck around 1,000 feet AGL to maintain VFR as I entered [the] airspace. I was given a normal approach to Runway 21 and then offered Runway 25 which I declined. I landed uneventfully.

During the flight back I did some troubleshooting and no circuit breakers were popped, I did not detect any smell of smoke, the GPS/Heading was in GPS mode, and I was correctly programmed. I had tested the autopilot and trim using the normal published procedure. Prior to the event, no deficiencies with either the trim or autopilot systems were observed.

Synopsis

Cessna 208 pilot reported losing the "Glass Panel" during cruise flight and immediately requested VFR conditions from ATC.

Time / Day

Date : 201804

Local Time Of Day : 0601-1200

Place

Locale Reference.Airport : ZZZ.Airport

State Reference : US

Altitude.AGL.Single Value : 0

Environment

Flight Conditions : VMC

Weather Elements / Visibility : Windshear

Weather Elements / Visibility.Visibility : 10

Light : Daylight

Aircraft

Reference : X

ATC / Advisory.CTAF : ZZZ

Aircraft Operator : Personal

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

Crew Size.Number Of Crew : 1

Operating Under FAR Part : Part 91

Flight Plan : None

Mission : Personal

Flight Phase : Landing

Route In Use : Direct

Route In Use : Visual Approach

Person

Reference : 1

Location Of Person.Aircraft : X

Location In Aircraft : Flight Deck

Reporter Organization : Personal

Function.Flight Crew : Pilot Flying

Function.Flight Crew : Single Pilot

Qualification.Flight Crew : Private

Experience.Flight Crew.Total : 197

Experience.Flight Crew.Last 90 Days : 13

Experience.Flight Crew.Type : 101

ASRS Report Number.Accession Number : 1531496

Events

Anomaly.Ground Event / Encounter : Ground Strike - Aircraft

Anomaly.Inflight Event / Encounter : Weather / Turbulence

Detector.Person : Flight Crew

When Detected : In-flight

Result.Aircraft : Aircraft Damaged

Assessments

Contributing Factors / Situations : Weather
Primary Problem : Weather

Narrative: 1

The AWOS reporting winds at variable 5 KTS. Visibility greater than 10. I was set up for landing configuration, was in a stable approach and was in ground effect and at touch down a gust which was a wind shear to a crossing tail wind lifted the right wing and the nose pitched down - and the propeller evidently had a strike to the runway. Gained control of plane to avoid leaving the runway and taxied to the ramp for inspection. After shutdown witnessed all three blades had impact. If I had made a go-around decision earlier and went around I may have avoided this strike.

Synopsis

C182 pilot reported a prop strike resulted when windshear was encountered at touchdown.

Time / Day

Date : 201804

Local Time Of Day : 0001-0600

Place

Locale Reference.Airport : ZZZ.Airport

State Reference : US

Altitude.AGL.Single Value : 0

Environment

Flight Conditions : IMC

Weather Elements / Visibility : Snow

Weather Elements / Visibility.Visibility : 0.75

Light : Dawn

Ceiling.Single Value : 1800

Aircraft

Reference : X

ATC / Advisory.Ground : ZZZ

Aircraft Operator : Air Carrier

Make Model Name : B737-700

Crew Size.Number Of Crew : 2

Operating Under FAR Part : Part 121

Flight Plan : IFR

Mission : Passenger

Flight Phase : Taxi

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 : Pilot Not Flying

Function.Flight Crew : First Officer

Qualification.Flight Crew : Air Transport Pilot (ATP)

Qualification.Flight Crew : Multiengine

Qualification.Flight Crew : Instrument

Experience.Flight Crew.Last 90 Days : 389

ASRS Report Number.Accession Number : 1531262

Person : 2

Reference : 2

Location Of Person.Aircraft : X

Location In Aircraft : Flight Deck

Reporter Organization : Air Carrier

Function.Flight Crew : Pilot Flying

Function.Flight Crew : Captain

Qualification.Flight Crew : Air Transport Pilot (ATP)

Qualification.Flight Crew : Instrument
Qualification.Flight Crew : Multiengine
ASRS Report Number.Accession Number : 1531282

Events

Anomaly.Deviation - Procedural : Published Material / Policy
Anomaly.Deviation - Procedural : FAR
Anomaly.Inflight Event / Encounter : Weather / Turbulence
Detector.Person : Passenger
When Detected : Taxi
Result.General : None Reported / Taken

Assessments

Contributing Factors / Situations : Weather
Primary Problem : Weather

Narrative: 1

We got to the aircraft with snow falling during preflight duties. The Captain and I talked about the weather and both agreed we needed a two-step deice/anti-ice application. With ATIS reporting -SN, BR (mist), temp of +2 C. We determined we could not use the "snowfall intensities as a function of prevailing visibility" chart to determine snowfall intensities because of *1 note at bottom of chart. The note states "Use this table when snow is the ONLY reported precipitation and visibility is not being reduced by other forms of obscuration (e.g., fog [FG], mist [BR]." Using established company policies and procedures the holdover time was calculated using the Clariant Safewing Type IV chart for the current weather conditions.

Type IV Clariant Safewing at -3 and above @ 100% was started at time. Approximately 8 to 10 minutes later the deicing crew informed us we had a clean aircraft and the 2 step was complete. The captain and I used the holdover times tables from the cockpit to determine a very conservative (moderate versus light) holdover time of 0:49-1:20. Just prior to taking the runway for takeoff we performed a flight deck check and we could see no contamination on the aircraft. The takeoff was conducted without incident and landed also without incident. During deplaning a passenger informed us that we had taken off with snow on our wings.

Narrative: 2

[Report narrative contained no additional information.]

Synopsis

B737 Flight Crew reported that after landing a passenger commented that the flight departed with snow on the wings.

Time / Day

Date : 201803
Local Time Of Day : 0601-1200

Place

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

Environment

Flight Conditions : Marginal
Weather Elements / Visibility : Rain
Weather Elements / Visibility : Thunderstorm
Weather Elements / Visibility.Visibility : 10
Light : Daylight
Ceiling.Single Value : 6000

Aircraft

Reference : X
ATC / Advisory.Tower : ZZZ
Aircraft Operator : Personal
Make Model Name : Skyhawk 172/Cutlass 172
Crew Size.Number Of Crew : 1
Operating Under FAR Part : Part 91
Flight Plan : None
Mission : Personal
Nav In Use : GPS
Flight Phase : Descent
Route In Use : Visual Approach
Airspace.Class E : PCT

Person

Reference : 1
Location Of Person.Aircraft : X
Location In Aircraft : Flight Deck
Reporter Organization : Personal
Function.Flight Crew : Pilot Flying
Function.Flight Crew : Single Pilot
Qualification.Flight Crew : Private
Experience.Flight Crew.Total : 314
Experience.Flight Crew.Last 90 Days : 3
Experience.Flight Crew.Type : 200
ASRS Report Number.Accession Number : 1530849
Human Factors : Situational Awareness
Human Factors : Training / Qualification
Analyst Callback : Attempted

Events

Anomaly.Airspace Violation : All Types
Anomaly.Deviation - Procedural : Published Material / Policy

Anomaly.Deviation - Procedural : FAR
Anomaly.Deviation - Procedural : Clearance
Anomaly.Inflight Event / Encounter : Weather / Turbulence
Detector.Person : Air Traffic Control
When Detected : In-flight
Result.General : Police / Security Involved
Result.Flight Crew : Diverted
Result.Air Traffic Control : Issued Advisory / Alert

Assessments

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

Narrative: 1

Yesterday, I experienced firsthand the consequences of poor flight planning and overconfidence. I took off with the intention of flying to ZZZ, two other airports, and back to departure airport. I knew the weather was going to be marginal, so I was prepared to turn around and return at any moment. I completed a biennial the day before, and was intending to practice flying to keep current.

Unfortunately, while preparing the arrival into ZZZ already, I committed the first infraction because ZZZ Tower told me via radio to call a number. Knowing that something was wrong made me nervous. I decided to return to my departure airport and call it a day, but the weather had turned so bad that a direct route was not possible. I could see on the G1000 with NEXRAD where the precipitation was and it pushed me east. Potomac asked the FBO to relay the message that I should land immediately and wait for the agencies. But the weather had become so intense (thunderstorm and heavy rain, wind) that I decided to divert to ZZZ1.

My immediate concern was to land safely and evaluate the situation from the ground. I was in constant communication with Tower and I felt it would have been counterproductive to try and speak to Potomac. I believe I stayed outside of airspace bravo the whole time. However, I violated DC SFRA regulations and I was told in the air that Police and Secret Service would be waiting for me on the ground. This increased my stress level significantly, and was probably not so helpful. I debriefed with the Chief Pilot at my flight school today and he said it would have been best to identify as an emergency on guard or Potomac, so that they knew that I was diverting due to weather, and to have a direct line of communications.

On my arrival, I was told by the local FBO to await interviews with Police and Secret Service. I answered all their questions and acknowledged that I got disoriented and somewhat overwhelmed with the situation. I was comfortable with the G1000 but I now plan to use an iPad backup in the future, which also makes it easier to think through how the flight will proceed, which airspaces are touched etc. I have agreed with the flight school to do some additional training, especially around the airspace restrictions.

Synopsis

C172 pilot reported violating SFRA regulations during a weather deviation.

Time / Day

Date : 201803
Local Time Of Day : 1801-2400

Place

Locale Reference.Airport : ZZZ.Airport
State Reference : US
Relative Position.Distance.Nautical Miles : 10
Altitude.MSL.Single Value : 5000

Environment

Flight Conditions : IMC
Weather Elements / Visibility : Icing
Weather Elements / Visibility : Turbulence
Weather Elements / Visibility.Visibility : 1
Light : Dusk
Ceiling.Single Value : 2500

Aircraft

Reference : X
ATC / Advisory.Center : ZZZ
Aircraft Operator : Air Taxi
Make Model Name : SA-227 AC Metro III
Crew Size.Number Of Crew : 1
Operating Under FAR Part : Part 135
Flight Plan : IFR
Mission : Cargo / Freight
Flight Phase : Climb
Route In Use : Direct
Airspace.Class E : ZZZ

Person

Reference : 1
Location Of Person.Aircraft : X
Location In Aircraft : Flight Deck
Reporter Organization : Air Taxi
Function.Flight Crew : Single Pilot
Qualification.Flight Crew : Instrument
Qualification.Flight Crew : Commercial
Qualification.Flight Crew : Multiengine
Experience.Flight Crew.Total : 1600
Experience.Flight Crew.Last 90 Days : 200
Experience.Flight Crew.Type : 330
ASRS Report Number.Accession Number : 1530841
Human Factors : Communication Breakdown
Communication Breakdown.Party1 : Flight Crew
Communication Breakdown.Party2 : ATC

Events

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

Assessments

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

Narrative: 1

While on the climb out, I checked on with Center. I was radar identified and had been previously cleared to climb and maintain 9,000 feet. Passing through 5,000 feet, I began to experience some light to moderate turbulence. I inquired the Controller if they had any PIREPs regarding the turbulence and was advised that moderate was reported between 7,000 and 9,000 feet. I advised the Controller I would like to go back down to 5,000 feet as the turbulence was continuously moderate. At approximately 5,600 feet the turbulence was moderate to severe, I asked the Controller for the lowest possible altitude in my area to escape it. I was told to stand by. I attempted to hold the aircraft at the assigned altitude of 5,000 feet, however I was unable to do so as the aircraft was experiencing severe turbulence and severe downdrafts were descending me below my assigned altitude. I was able to maintain a level altitude at 4,700 feet and the Controller inquired about my altitude, I advised them of the moderate to severe turbulence and requested 4,000 feet. The rest of the flight continued without further incident.

The Controller was busy, however I was in need of assistance. Through my inquiry of the lowest possible altitude in the area, the Controller should have known something was wrong. I was unable to hold the aircraft at the assigned altitude of 5,000 feet. My immediate concern was for my safety and that of my aircraft. Later on, the Controller was very apologetic for not providing assistance to me when it was desperately required.

Synopsis

SA227 pilot reported being unable to maintain altitude in severe turbulence and was unhappy with the level of support received from ATC.

Time / Day

Date : 201803
Local Time Of Day : 1801-2400

Place

Locale Reference.ATC Facility : RSW.TRACON
State Reference : FL
Altitude.MSL.Single Value : 9000

Environment

Flight Conditions : Mixed
Weather Elements / Visibility : Turbulence
Weather Elements / Visibility : Haze / Smoke
Weather Elements / Visibility : Windshear
Weather Elements / Visibility.Visibility : 5
Light : Night
Ceiling.Single Value : 5000

Aircraft : 1

Reference : X
ATC / Advisory.TRACON : RSW
Aircraft Operator : Personal
Make Model Name : PA-28R Cherokee Arrow All Series
Crew Size.Number Of Crew : 1
Operating Under FAR Part : Part 91
Flight Plan : IFR
Mission : Training
Nav In Use.VOR / VORTAC : LBV
Flight Phase : Cruise
Route In Use : Vectors
Route In Use : Direct
Route In Use.Airway : V157
Airspace.Class E : RSW

Aircraft : 2

Reference : Y
Make Model Name : Any Unknown or Unlisted Aircraft Manufacturer
Operating Under FAR Part.Other
Airspace.Class E : RSW

Person

Reference : 1
Location Of Person.Aircraft : X
Location In Aircraft : Flight Deck
Reporter Organization : Personal
Function.Flight Crew : Instructor
Function.Flight Crew : Pilot Not Flying
Qualification.Flight Crew : Instrument
Qualification.Flight Crew : Commercial

Qualification.Flight Crew : Flight Instructor
Qualification.Flight Crew : Multiengine
Experience.Flight Crew.Total : 1950
Experience.Flight Crew.Last 90 Days : 180
Experience.Flight Crew.Type : 200
ASRS Report Number.Accession Number : 1530776
Human Factors : Situational Awareness
Analyst Callback : Attempted

Events

Anomaly.Conflict : Airborne Conflict
Anomaly.Deviation - Altitude : Excursion From Assigned Altitude
Anomaly.Deviation - Procedural : Clearance
Anomaly.Inflight Event / Encounter : Weather / Turbulence
Anomaly.Inflight Event / Encounter : Wake Vortex Encounter
Detector.Automation : Aircraft TA
Detector.Person : Flight Crew
Detector.Person : Air Traffic Control
Miss Distance.Horizontal : 1500
Miss Distance.Vertical : 600
When Detected : In-flight
Result.Flight Crew : Returned To Clearance
Result.Air Traffic Control : Issued Advisory / Alert

Assessments

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

Narrative: 1

I was on training flight with a student to Miami International airport. The aircraft being used that night was a PA-28R-200. The flight was uneventful for the most part except for some occasional moderate turbulence due to high winds at our cruise level.

As the flight approached the LBV VOR, we noticed an increasing amount of traffic crossing; either directly overhead or slightly west of our position inbound to RSW, which was normal during that time of the day. Suddenly, the aircraft passed through much stronger turbulence, which caused a substantial amount of altitude to be gained (+\ - 300ft). I promptly took controls from my student in an attempt to bring the aircraft under control and back to its assigned altitude of 9,000 feet. As the situation unfolded, ATC ordered that we descend immediately due to arriving traffic overhead, which was not answered back immediately due to my concentration being to fly the aircraft back to our altitude. Shortly after, ATC advised us of a "possible pilot deviation" and gave us a phone number to call after we landed at our destination. The flight [continued] without further complications.

I believe that we may have encountered residues of wake turbulence from the overhead traffic, which appeared to be mostly jet aircraft. If not, it was heavy turbulence due to strong winds at our flight level. Some of the contributing factors to this situation would include, in my opinion, the student having controls of the aircraft at the time of the incident and a delayed response time from instructor due to a surprise factor and general instability of the atmosphere surrounding the airplane at that time.

One way of correcting this situation is to be aware of possible wake turbulence created by heavier aircraft and request an alteration of course from ATC. This way, the aircraft would remain clear of any possible vortexes produced.

Synopsis

PA-28R instructor reported 300 feet altitude deviation occurred when the aircraft encountered either turbulence or wake from overflying jet aircraft.

Time / Day

Date : 201803

Local Time Of Day : 0601-1200

Place

Locale Reference.ATC Facility : ZAU.ARTCC

State Reference : IL

Altitude.MSL.Single Value : 25000

Environment

Flight Conditions : VMC

Weather Elements / Visibility : Turbulence

Light : Dawn

Aircraft

Reference : X

ATC / Advisory.Center : ZAU

Aircraft Operator : Air Carrier

Make Model Name : B737-700

Crew Size.Number Of Crew : 2

Operating Under FAR Part : Part 121

Flight Plan : IFR

Mission : Passenger

Flight Phase : Climb

Airspace.Class A : ZAU

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 : 359

ASRS Report Number.Accession Number : 1530408

Events

Anomaly.Inflight Event / Encounter : Weather / Turbulence

Anomaly.Inflight Event / Encounter : Loss Of Aircraft Control

Detector.Person : Flight Crew

When Detected : In-flight

Result.Flight Crew : Returned To Clearance

Result.Flight Crew : Regained Aircraft Control

Assessments

Contributing Factors / Situations : Weather

Primary Problem : Weather

Narrative: 1

Experienced severe turbulence during climb from approximately FL250 to FL310. Flying in clear air, below some higher clouds. I saw the airspeed start to increase as the wind speed rapidly increased as we climbed into the jet stream. We got a few moderate bumps, and then a short period of severe turbulence. Aircraft experienced a large roll input (similar to wake turbulence) that was not arrested with control wheel inputs. Estimate largest bank angle was approximately 45 to 60 degrees or more. This happened a couple of times. Winds at this time were about 170 knots on the nose. All Flight Attendants and Passengers were seated. No known or reported injuries.

Synopsis

Boeing 737-700 Captain reported temporary loss of aircraft control during climb due to severe turbulence.

Time / Day

Date : 201803

Local Time Of Day : 1201-1800

Place

Locale Reference.ATC Facility : ZHU.ARTCC

State Reference : TX

Environment

Weather Elements / Visibility : Thunderstorm

Light : Daylight

Aircraft

Reference : X

ATC / Advisory.Center : ZHU

Make Model Name : Commercial Fixed Wing

Operating Under FAR Part : Part 121

Flight Plan : IFR

Flight Phase : Cruise

Route In Use : Oceanic

Airspace.Class A : ZHU

Person

Reference : 1

Location Of Person.Facility : ZHU.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) : 16.0

ASRS Report Number.Accession Number : 1530142

Human Factors : Communication Breakdown

Human Factors : Workload

Human Factors : Situational Awareness

Communication Breakdown.Party1 : ATC

Communication Breakdown.Party2 : ATC

Events

Anomaly.ATC Issue : All Types

Anomaly.Deviation - Procedural : Published Material / Policy

Anomaly.Inflight Event / Encounter : Weather / Turbulence

Detector.Person : Air Traffic Control

When Detected : Routine Inspection

Result.General : None Reported / Taken

Assessments

Contributing Factors / Situations : Airspace Structure

Contributing Factors / Situations : Company Policy

Contributing Factors / Situations : Weather
Primary Problem : Company Policy

Narrative: 1

I was training my trainee at [an oceanic] non-radar sector. At the beginning of the shift we asked for an AFP (Flow Control Program) for the day shift. We were denied, I was told, by Washington [Traffic Management]. An AFP is a flow control program with estimated departure clearance times on the east coast, to control the traffic volume in oceanic. This AFP was constructed specifically for this sector, notorious at this time of year for traffic overload. We also had weather visible on our display along the center boundary. This weather had been consistent since 3 days previous, a slow moving west-to-east system doing about the same thing each day. No surprises here. So again, we had asked for our AFP, and I was told that we were denied by Washington. They did not want ground delays, but to manage things manually in the air with a normal departure schedule.

As I was training my trainee on this sector, the traffic volume went to an extremely high level, particularly for a non-radar sector. Coupled with this, almost every aircraft passing through was deviating around weather, most of them up to 50 miles off the airway, rendering non-radar airway separation impossible. The only thing left was altitude separation, and with the volume, we ran out of altitudes quickly. The fact that we made it out the other side of this without having an [operational error] was a miracle. In my opinion, with an AFP in place we can regulate high volumes of southbound traffic easily with estimated departure clearance times. However, in Washington, they have the airline representatives hovering over the flow control people, and for public perception purposes they would rather us just throw all the planes up in the air and try to manage things on the fly, rather than have people sitting on the ground.

In many instances we can do this, but we need to recognize the times when safety is the priority, not profit-driven motives from the airlines. That's the end of the opinion section, now for one last fact. In my [many] years of being an Air Traffic Controller, this was one of the most, if not the most dangerous situation I have ever witnessed or been involved in. Totally unnecessary. Safety first! The AFP was specifically designed to alleviate unsafe traffic overload in this sector. Don't be so scared of the airlines that you're afraid to use it. Why even have it in the first place? Safety first!

Synopsis

Center controller reported the Traffic Management Unit Command Center refused to implement a flow control program for weather in the airspace causing the sector to become over-saturated and compromising safety.

Time / Day

Date : 201803

Local Time Of Day : 0601-1200

Place

Locale Reference.Airport : DFW.Airport

State Reference : TX

Aircraft

Reference : X

ATC / Advisory.TRACON : D10

Aircraft Operator : Air Carrier

Make Model Name : B737-800

Crew Size.Number Of Crew : 2

Operating Under FAR Part : Part 121

Flight Plan : IFR

Mission : Passenger

Flight Phase : Initial Approach

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 : Multiengine

Qualification.Flight Crew : Air Transport Pilot (ATP)

Qualification.Flight Crew : Instrument

ASRS Report Number.Accession Number : 1529962

Human Factors : Communication Breakdown

Communication Breakdown.Party1 : Flight Crew

Communication Breakdown.Party2 : ATC

Person : 2

Reference : 2

Location Of Person.Aircraft : X

Location In Aircraft : Flight Deck

Reporter Organization : Air Carrier

Function.Flight Crew : First Officer

Function.Flight Crew : Pilot Not Flying

Qualification.Flight Crew : Air Transport Pilot (ATP)

Qualification.Flight Crew : Instrument

Qualification.Flight Crew : Multiengine

ASRS Report Number.Accession Number : 1531671

Human Factors : Communication Breakdown

Communication Breakdown.Party1 : Flight Crew

Communication Breakdown.Party2 : ATC

Events

Anomaly.ATC Issue : All Types
Anomaly.Inflight Event / Encounter : Weather / Turbulence
Anomaly.Inflight Event / Encounter : Unstabilized Approach
Detector.Person : Flight Crew
When Detected : In-flight
Result.Flight Crew : Returned To Clearance
Result.Flight Crew : Requested ATC Assistance / Clarification

Assessments

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

Narrative: 1

Moderate to severe turbulence enroute resulted in multiple deviations in attempt to keep best ride, previous crew that flew [the] aircraft stated worst turbulence they had ever experienced. We wrote up and found damage that had been previously repaired on wing so we were in heightened state of alertness for the short flight to Dallas. There were three Approach Controllers routing into Dallas and first two said to expect 35L or at least that is what both pilots heard and expected. FO set up approach in box and I briefed as per procedure. Final controller was dealing with planes answering for others and people stepping on transmissions and at last second released us on vector to join 36L, neither of us caught the change. This set us up flying through 36L LOC and being vectored back towards 36L. We were not setup for it and asked to be vectored out of it.

I hand flew the first two turns then put on autopilot and asked First Officer, who was being pretty aggressive in clarifying 36L pretty much confirming it every radio transmission, to fly while I setup 36L. I did this quickly and we were quickly headed around for second attempt. I briefed as I setup, then took plane back and asked First Officer to make sure his side was correct since we were already on base leg. Unfortunately, I made an error and when I put 36L in the box, did not extend centerline to have a final segment to join. This would have been recoverable except I always use as recommended LNAV, VNAV and had briefed that for ILS approaches till final segment where will switch to approach mode. This ensures compliance with Class B airspace and has been noted as preferred method rather than simply arming approach mode while on vector, the second approach was not fully setup as we were getting close to final and so I asked to just be broken off for vectors with a little more time for setup. Third time joined 36L uneventfully and resumed long taxi to the gate.

I think we should be told much earlier which runway to expect coming into Dallas and some attempt should be made to limit last minute changes. I never want to make errors when flying or doing anything else and need to slow down and not allow short vectors when a mistake has been made. I can work very fast, but sometimes work should be [done] slower. Transmissions that get stepped on don't help either, but overall no excuse, somehow got rushed and am sorry for any inadvertent mistakes attributed to me. Make sure when there are multiple (three) Approach Controllers that all are consistent in which runway to expect, last minute changes add workload exponentially and perhaps having a couple possible changes pre-setup would be a good idea.

Narrative: 2

[Report narrative contained no additional information.]

Synopsis

Air carrier flight crew reported a late runway change during approach due to heavy volume of traffic.

Time / Day

Date : 201803

Local Time Of Day : 0001-0600

Place

Locale Reference.ATC Facility : ZHU.ARTCC

State Reference : TX

Altitude.MSL.Single Value : 33000

Environment

Flight Conditions : IMC

Weather Elements / Visibility : Thunderstorm

Light : Night

Aircraft : 1

Reference : X

ATC / Advisory.Center : ZHU

Aircraft Operator : Air Carrier

Make Model Name : B787-900

Crew Size.Number Of Crew : 2

Operating Under FAR Part : Part 121

Flight Plan : IFR

Mission : Passenger

Flight Phase : Descent

Airspace.Class A : ZHU

Aircraft : 2

Reference : Y

ATC / Advisory.Center : ZHU

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 : Cruise

Route In Use : Vectors

Airspace.Class A : ZHU

Person : 1

Reference : 1

Location Of Person.Facility : ZHU.ARTCC

Reporter Organization : Government

Function.Air Traffic Control : Enroute

Qualification.Air Traffic Control : Fully Certified

ASRS Report Number.Accession Number : 1529864

Human Factors : Communication Breakdown

Human Factors : Workload

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

Person : 2

Reference : 2
Location Of Person.Facility : ZHU.ARTCC
Reporter Organization : Government
Function.Air Traffic Control : Enroute
Qualification.Air Traffic Control : Fully Certified
ASRS Report Number.Accession Number : 1530108
Human Factors : Workload
Human Factors : Communication Breakdown
Communication Breakdown.Party1 : ATC
Communication Breakdown.Party2 : ATC

Person : 3

Reference : 3
Location Of Person.Facility : ZHU.ARTCC
Function.Air Traffic Control : Enroute
Qualification.Air Traffic Control : Fully Certified
ASRS Report Number.Accession Number : 1530109
Human Factors : Workload
Human Factors : Communication Breakdown
Communication Breakdown.Party1 : ATC
Communication Breakdown.Party2 : ATC

Events

Anomaly.Airspace Violation : All Types
Anomaly.ATC Issue : All Types
Anomaly.Conflict : Airborne Conflict
Anomaly.Deviation - Procedural : Published Material / Policy
Anomaly.Deviation - Procedural : Clearance
Anomaly.Inflight Event / Encounter : Weather / Turbulence
Detector.Automation : Aircraft TA
Detector.Person : Air Traffic Control
When Detected : In-flight
Result.Flight Crew : FLC complied w / Automation / Advisory
Result.Air Traffic Control : Issued New Clearance

Assessments

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

Narrative: 1

Weather had impacted the Houston area and aircraft were attempting to navigate around to get to the terminal area. Our FLM (Front Line Manager) had already left for the evening leaving 3 sectors open with weather and deviations impacting all of them. The only management personnel in facility was the midnight watch FLM that was trying his best to

manage all the complex traffic that was inbound and outbound from Houston and surrounding facilities.

We had asked numerous times for a route to get aircraft into Houston and were never given an answer. Using the weather radar, I had instructed several aircraft headed eastbound to deviate north of course and when able direct TNV...IAH. The next sector (78) had accepted several of these aircraft without complaint. Then they called my D-side and told him that they were not accepting any more arrival aircraft. This was news to us, as they appeared to have the only viable route to the Houston terminal area. The FLM came to my sector and instructed us to hold the four current IAH arrivals that we had and any more that we had coming.

Aircraft Y had flashed to sector 78 and this was one that needed to be held in my sector. I instructed my D-side to call them (sector 78) and point out Aircraft Y turning back and holding in our airspace. Aircraft Y was at FL330. I instructed the aircraft to fly I believe a 300 heading to get them back to a high altitude holding waypoint. Sector 78 approved the point out to my D-side. At this time, I saw no traffic at FL330 or climbing/descending through FL330 that would be a factor with Aircraft Y. Sector 78 then flashed Aircraft X east of Aircraft Y who had been level at FL340 (IAH departure to the west) now descending to FL320 for unknown reasons through Aircraft Y. I accepted the handoff on Aircraft X, assuming that sector 78 would ensure the aircraft was either turned behind Aircraft Y that they had taken the point out on or ensured the aircraft were vertically separated. When Aircraft X checked on, I issued the aircraft direct ELP and noticing his rate of descent, then issued a further turn to the north in an attempt to keep separation. Aircraft X then informed me he was responding to a RA and descending. Aircraft Y also responded to an RA and climbed. Neither were timely enough and separation was lost.

The 78 controller apparently told the FLM in charge that he expected Aircraft Y to turn more quickly. Aircraft simply don't turn on a dime at high altitude.

Better communication between TMU/FLM and controllers. We should have been told earlier that Houston arrivals needed to be held so that it wasn't a last minute scramble to keep them from sector 78's airspace. The AUS specialty (which includes sector 78) had combined up early in preparation for the midnight shift. This was premature in my opinion, since the weather was still in the airspace and they were going to need to be prepared for inbound and outbound aircraft from the Houston terminal area.

This weather event was forecast for several days and we should have had plans in place in a more timely manner. This seems to be an on-going problem with ZHU and a lack of preparedness for these types of weather systems.

Narrative: 2

ZHU was heavily impacted with weather. Waves of thunderstorms had passed through the airspace impacting IAH. A third line of storms formed [at the] time of incident. The line was almost solid from south of the US/Mexico border extending up through the Tennessee Valley. There was one small break that aircraft were deviating through. We were told to let aircraft decide how they wanted to go through and to let them. I voiced some concern to my supervisor to whether the receiving sector 83 was prepared for this. They were set up on a mid shift configuration with two controllers. Our specialty RSG had 4 controllers staying overtime as well as other specialties doing the same. [A few hours later], sector 83 shut us off and the watch supervisor asked us to keep all IAH inbound traffic in our airspace to hold. Aircraft Y was in a handoff status to 83. I took the handoff back to pointed out aircraft to sector 83 and told them the aircraft was in a turn to head back

westbound to hold at FL330. Sector 83 verbally accepted the point out. A few minutes later sector 83 APREQED Aircraft X at FL340 descending to FL320. I approved the descent. Aircraft Y was still on 83 scope continuing their turn. Sector 83 switched Aircraft X to our frequency in a descent. My R-side expedited his descent. Aircraft Y responded to a TCAS/RA and climbed to FL340. The next day I was informed that the closest proximity of the aircraft was 4.8 miles and 900 feet.

As has happens quite often there was no real plan as to how aircraft were going to get through or around the weather. I am not sure what role the Command Center had, if any. I also strongly believe a contributing factor was AUS specialty ill prepared for this by only having 2 mid shift controllers on one scope.

Narrative: 3

We had combined all the sectors to get into the midnight shift configuration. Our specialty was shut off all day long and the weather had only gotten worse and covered the entire specialty. TMU informed me that they were going to try and send an IAH arrival in as a test. Not too long after there was multiple IAH arrivals coming into our sector without warning. None of them made it in on a standard arrival so I was dealing with a large amount of deviations. Before we were able to split some sectors off I was too busy and would not be able to accomplish that. Halfway through the session, I had two aircraft deviating at each other at FL340, one being the Aircraft X. I descended them to FL320 and the D side APREQED it with the next sector (74). They had turned their traffic Aircraft Y direct to a fix to hold which turned them right into the Aircraft X. They ended up 4.8 miles and 900 feet apart.

There needed to be TMI's in place to lower my traffic volume. Having too many aircraft in my airspace meant I couldn't pay enough attention to all aircraft.

Synopsis

Three ZHU Controllers reported a loss of separation event. Controllers reported factors were high volume, weather, and no traffic management program in effect.

Time / Day

Date : 201803

Local Time Of Day : 1201-1800

Place

Locale Reference.ATC Facility : ZZZ.TRACON

State Reference : US

Altitude.MSL.Single Value : 2000

Environment

Flight Conditions : IMC

Weather Elements / Visibility.Visibility : 6

Light : Daylight

Ceiling.Single Value : 700

Aircraft

Reference : X

ATC / Advisory.TRACON : ZZZ

Aircraft Operator : FBO

Make Model Name : Cessna 150

Crew Size.Number Of Crew : 1

Operating Under FAR Part : Part 91

Flight Plan : IFR

Mission : Training

Flight Phase : Initial Climb

Route In Use : Direct

Airspace.Class E : ZZZ

Component : 1

Aircraft Component : Compass (HSI/ETC)

Aircraft Reference : X

Problem : Malfunctioning

Component : 2

Aircraft Component : Transponder

Aircraft Reference : X

Problem : Malfunctioning

Person

Reference : 1

Location Of Person.Aircraft : X

Location In Aircraft : Flight Deck

Reporter Organization : FBO

Function.Flight Crew : Instructor

Function.Flight Crew : Pilot Flying

Qualification.Flight Crew : Flight Instructor

Qualification.Flight Crew : Commercial

Experience.Flight Crew.Total : 1235

Experience.Flight Crew.Last 90 Days : 50
Experience.Flight Crew.Type : 300
ASRS Report Number.Accession Number : 1529825

Events

Anomaly.Aircraft Equipment Problem : Critical
Anomaly.Inflight Event / Encounter : Weather / Turbulence
Detector.Person : Flight Crew
When Detected : In-flight
Result.Flight Crew : Requested ATC Assistance / Clarification
Result.Flight Crew : Overcame Equipment Problem
Result.Air Traffic Control : Issued New Clearance
Result.Air Traffic Control : Provided Assistance

Assessments

Contributing Factors / Situations : Aircraft
Primary Problem : Aircraft

Narrative: 1

I requested a local IFR clearance to shoot a series of approaches in a Cessna 150 Commuter equipped with a Garmin 430. I was cleared to the initial approach fix at to climb to 3,000 FT (this was to be a demonstration for my student). After climbing through 850 FT MSL I was directed to contact departure. Departure cleared me to 3,000 FT and direct to [the] IAF for the ILS approach. All initially went well. I then noted that my heading indicator was rotating freely. I asked my student to see if he could get it to stop and set it for the same heading shown in TRK on the GPS. We could not get it to stop. We then noted that the turn coordinator was not functioning correctly (it returned some time later). In the absence of a heading indicator, I changed the 430 to NAV screen 1 to match the direct heading with the indicated tracking heading. However, we learned that it was also moving about and did not match the compass.

ATC asked me to report my altitude and noted that they did not have a primary radar reading on my airplane. Shortly after, I declared that I was in a "no gyro" situation and needed assistance. They vectored me on a heading of 270 and ask that I climb to 4,000 FT to see if they could get a radar reading on me. I entered a climb but had great difficulty stabilizing my heading. At times the artificial horizon and turn coordinators worked sporadically. At 4000' I broke out of the clouds and was able to stabilize heading and climb with pilotage. ATC asked me to climb to 8,000 FT on 270 degree. I replied that I was unable in that airplane but would continue to climb. At 5,000 FT ATC directed me to turn to a heading of 180 degrees. I was able to do so with the systems operating; mostly compass. After a couple of minutes I noted the localizer for the ILS approach coming in and reported that to ATC. They asked if I was established. I replied I would be in I turned inbound immediately. The cleared me to do so and I tracked the localizer inbound. ATC then cleared me to descend to 3,000 FT. Shortly thereafter, they told me to not respond to future instructions and began reporting distance from airport and the desired altitude. I slowed the airplane and descended to intersect the glideslope. I broke out of IMC at 700 FT AGL prior to the threshold and was cleared to land and directed to contact ground on rollout.

I believe I flew this mission to the best of my ability given the number of systems that were not working in the aircraft. During preflight and during the flight, the gauges indicated I had normal vacuum and electrical charge.

ATC personnel met me at the airplane and we had a long discussion of what happened and I thanked them profusely for their professionalism and help. ATC also reported that they only had radar contact briefly during the flight and then again when I broke out of the clouds on final. The NAV and transponder systems were "squawked" and the FBO manager informed of the incident that the airplane is currently not safe to fly.

Synopsis

C150 instructor pilot reported an intermittent transponder and loss of heading information in IFR conditions, and returned to the field with some help from ATC.

Time / Day

Date : 201803

Local Time Of Day : 1201-1800

Place

Locale Reference.Airport : EWR.Airport

State Reference : NJ

Altitude.AGL.Single Value : 2000

Environment

Flight Conditions : VMC

Light : Daylight

Aircraft

Reference : X

ATC / Advisory.Tower : EWR

Aircraft Operator : Air Carrier

Make Model Name : B757 Undifferentiated or Other Model

Crew Size.Number Of Crew : 2

Operating Under FAR Part : Part 121

Flight Plan : IFR

Mission : Passenger

Flight Phase : Climb

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 : Pilot Not Flying

Function.Flight Crew : Captain

Qualification.Flight Crew : Air Transport Pilot (ATP)

Experience.Flight Crew.Total : 20000

Experience.Flight Crew.Last 90 Days : 200

Experience.Flight Crew.Type : 2487

ASRS Report Number.Accession Number : 1529334

Human Factors : Communication Breakdown

Human Factors : Situational Awareness

Human Factors : Distraction

Communication Breakdown.Party1 : Flight Crew

Communication Breakdown.Party2 : Flight Crew

Person : 2

Reference : 2

Location Of Person.Aircraft : X

Location In Aircraft : Flight Deck

Reporter Organization : Air Carrier

Function.Flight Crew : Pilot Flying

Function.Flight Crew : First Officer
Qualification.Flight Crew : Air Transport Pilot (ATP)
Experience.Flight Crew.Total : 1744
Experience.Flight Crew.Last 90 Days : 160
Experience.Flight Crew.Type : 1645
ASRS Report Number.Accession Number : 1529650
Human Factors : Situational Awareness
Human Factors : Confusion
Human Factors : Communication Breakdown
Human Factors : Distraction
Communication Breakdown.Party1 : Flight Crew
Communication Breakdown.Party2 : ATC
Communication Breakdown.Party2 : Flight Crew

Person : 3

Reference : 3
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
Function.Flight Crew : Relief Pilot
Qualification.Flight Crew : Air Transport Pilot (ATP)
Experience.Flight Crew.Total : 329
Experience.Flight Crew.Last 90 Days : 329
ASRS Report Number.Accession Number : 1529658

Events

Anomaly.ATC Issue : All Types
Anomaly.Deviation - Track / Heading : All Types
Anomaly.Deviation - Procedural : Published Material / Policy
Anomaly.Inflight Event / Encounter : Weather / Turbulence
Anomaly.Inflight Event / Encounter : Unstabilized Approach
Detector.Person : Flight Crew
When Detected : In-flight
Result.Flight Crew : Returned To Clearance
Result.Flight Crew : Executed Go Around / Missed Approach

Assessments

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

Narrative: 1

On very short final to runway 4R at Newark we had a 10+ knot speed increase to our Vref. This we attributed to possible wind shear/gust that caused us to carry past the touchdown zone. I called for a go around that resulted in a bailed landing. The aircraft briefly touched the runway before beginning a climb for the go around. Newark instructed us to turn right to 060 and climb to 2000 feet as monitoring pilot I set heading/heading select and altitude to reflect our ATC clearance. During the climb to initial altitude of 2000 feet we received another altitude clearance to 2500 feet our IRO alerted me that we had not yet reconfigured our flaps and gear for the go around. I confirmed that we had established a

positive rate of climb, set flaps to 20 degrees and raised our landing gear. During this sequence we inadvertently turned past our assigned 060 heading. As pilot monitoring I noticed the heading deviation and asked the first officer if we had been given a new heading that I possibly did not hear/confirm. About the same time ATC instructed us to turn back toward 060. Further climb and heading changes to the west for approach re-sequencing were issued by ATC.

Narrative: 2

I was the flying pilot. I had briefed the ILS for 04R prior to descent as dry data, flaps 30, 128 / 138 for speeds based on weight and winds of 060 at something like 15 kts gusting 20 or so; more or less EWR standard for springtime. The arrival and approach was uneventful - approach had us on a long left base to follow an aircraft to final for 04R (VMC); I called the traffic and verified field in sight and the captain informed approach. We were cleared from there to intercept and fly the approach. I announced turning off the auto pilot and auto throttle and hand flew the approach. The entire approach was stable, with only temporary fluctuations in airspeed of 10-15kts due to winds; no deviations from lateral or vertical path. At 500 feet I called 'stabilized' and the captain echoed this call per the new callout profile. At approximately 200 feet I felt the winds shifting and said "We're likely to end up on the backside of this thing (shear), so I'll carry some extra thrust and let it settle..." We were right on target speed at this time and remained so over the numbers, aligned with the PAPI and GS. The landing countdown started and marched evenly - 50-40-30; at 30 I checked the descent slightly and backed the thrust levers off a small amount - 20...10 (approximately adjacent to E taxiway) and began the flare - at this point the captain yelled "Go around." Honestly, I didn't really register the call, not seeing anything around us and knowing we were basically touching down at that point, but he yelled it again in rapid succession one or two more times; so after softly touching down and rolling along the runway for one to two seconds, I smoothly applied full thrust and gently rotated back off - in my mind effectively completing more of a touch and go or perhaps max thrust take-off rather than a go-around or balked landing. I called positive rate, gear up (rather than go-around flaps 20 because I honestly didn't know why we were going around and unsure of whether this profile applied anymore; in any case, I didn't feel comfortable dumping the flaps at this point); as I recall, the captain didn't respond to this and I remained focused on flying the plane and watching the airspeed. I know I called again for gear, flaps, verification of altitude and bugging an appropriate airspeed, but really nothing was happening in terms of flight management other than me just flying the plane raw so to speak. The captain reported the go-around to tower and switched frequency to approach. Somewhere in there we received a heading change and 160 was bugged and I followed it. I didn't hear this instruction from ATC but assuming the captain was dialed-in I followed it - this put us at approximately 2500 feet coming over the Hudson at about 200kts turning south. At some point the IRO yelled for flaps 20 and the captain did comply with this configuration change, at which point I reduced thrust to prevent over-speeding the remaining flaps and level the plane at 2500 (missed approach altitude for 04R which had been set back during the final approach segment). I had just engaged the autopilot when approach asked us where we were going and immediately ordered us to heading 060 and 3000 feet. I turned the autopilot off, turned and climbed the plane to the assigned heading and altitude and then reengaged the automation. I set a speed of 200kts at this point, called for clean-up of flaps and after take-off checklist. Somewhere in here the captain made a passenger announcement and talked with, I believe, the flight attendants. Still thinking about the go-around call, I could only surmise that it was the captain's concern with wind shear (no predictive annunciation during the event) that resulted in the call and therefore reported that to ATC when they asked for a reason for the go-around. Once the captain was back from talking with the cabin, I restated where we were (aircraft state) and that we were being vectored back to 04R. I

quickly re-briefed the approach and flew it exactly as I had before with more or less the exact same approach experience, except I left the automation on until 1000 feet AGL. Again, once below 50 feet, I checked the landing at 30 feet, ensuring we were on target speed and the captain started telling me to put it on the ground. I smoothly flared, closing the thrust levers touching down amid repeated statements from the captain to get it on the ground. After letting auto brakes two (2) kick in, I manually slowed the plane, giving the aircraft back to the captain, and we exited the runway in a normal fashion at taxiway K. It was all checklists and aircraft monitoring all the way to gate - no discussion of the event which was good. [I was] expecting a debriefing at the gate, ...but the captain just kind of said sorry that he had to call "it"; that go-arounds are always a mess, and that we got it on the ground safely. I indicated that I wanted more of a debrief and that I was still unsure of why we went around / rejected the landing in the first place. Both the captain and IRO agreed that we were stable, but the captain indicated that he thought we were going to touch down outside the touchdown zone. I guess I can accept this as a valid reason, but weighing the uncertainty of the flight phase, more than 6000 feet of runway remaining, the potential compromise of safety, the fact that new callouts were in place - not that any callouts were judiciously or correctly made at all - seems to negate the concern over possibly landing a bit outside the touchdown zone. I was stable, on target speed, very aware of the wind conditions, fully in control of the plane and managing flight energy appropriately.

There were absolutely no personality or interpersonal issues with the captain or IRO, and it was otherwise a great trip. I'm not sure if the captain thought I was just going to float down the runway or if he felt the flight was in danger from the windshear. I respected the call as soon as I firmly registered it and complied accordingly. Although not in a desired aircraft state during the rejected landing phase, I did not feel the safety of the flight was at risk or the possibility of a negative outcome - although being in a more or less VFR corridor around the Hudson in the possible vicinity of GA sightseeing traffic did concern me. I believe the rejected landing was unnecessary and it exposed the flight to a higher (comparative) level of risk than necessary. I am of course open to a different view and any data which may demonstrate that my perception of this event is flawed or inaccurate.

Narrative: 3

I was the IRO in the jumpseat. It was the FO's approach and landing into EWR Runway 04R. The weather was clear with winds 060 at 9G17. With the wind corrections, the approach speed was 138. The FO was flying the approach in the low 140s. Around 200-400 AGL, there was a 10 knot gain shear that increased the speed to 150 kts. The FO corrected for this and got the airspeed back to 140. The flare and power pull appeared normal, but the aircraft seemed to hover just below 10ft. With my inexperience in this aircraft, I don't have the best feel for when exactly touchdown will occur below 10 ft...But I wasn't surprised that the Captain called a go-around. I noticed that we were passing the 6 board when the go-around was initiated.

As for the go-around, the FO needed two attempts to hit the go-around switch and advance the throttles. As the throttles advanced, we momentarily touched down. After I saw the throttles advance I focused on the flaps. I don't remember if the FO immediately called for the flaps, but after a few seconds I noticed the flaps were still at 30, so I said "Flaps 20," and the CA got the flaps to 20. It took a few seconds and I believe it was the CA that noticed the gear, so he said positive rate and got the gear up. It was somewhere in here where the FO noticed the speed was still set at 138 and mentioned something about setting 180. I don't remember if the FO or the CA set the MCP speed, but it was set to 179. At the same time, I think it was the tower that said 060 heading and 2500. I don't remember exactly when the switch from tower to departure occurred. As I was focused on

the airspeed increasing, and the configuration of the flaps to 5, I noticed the CA had his hand on the MCP heading select, so I couldn't see what he was setting.

I believe I heard him respond to ATC with the correct 060 heading, but he was turning the MCP to 160. At this point, ATC asked where we were going and corrected our heading to 060 and had us climb to 3000. At this point, the CA corrected the heading on the MCP, but we were on the west side of the Hudson River. It took a few more seconds before the altitude was corrected on the MCP with FLCH engaged. At this point, I believe everything was settled down with the aircraft configured correctly with the correct speed, heading and altitude.

The second approach and landing was uneventful with the same 10 knot gain shear on final approach.

Synopsis

B757 flight crew reported a configuration error and a heading deviation during a go-around.

Time / Day

Date : 201803
Local Time Of Day : 0601-1200

Place

Locale Reference.Airport : ZZZ.Airport
State Reference : US
Altitude.MSL.Single Value : 10000

Environment

Flight Conditions : Mixed
Weather Elements / Visibility : Turbulence
Weather Elements / Visibility.Visibility : 30
Light : Daylight
Ceiling.Single Value : 12000

Aircraft

Reference : X
ATC / Advisory.TRACON : ZZZ
Aircraft Operator : Personal
Make Model Name : Eclipse 500
Operating Under FAR Part : Part 91
Flight Plan : IFR
Mission : Personal
Flight Phase : Initial Climb
Route In Use : Direct
Airspace.Class C : ZZZ

Person

Reference : 1
Location Of Person.Aircraft : X
Location In Aircraft : Flight Deck
Reporter Organization : Personal
Function.Flight Crew : Pilot Flying
Function.Flight Crew : Single Pilot
Qualification.Flight Crew : Instrument
Qualification.Flight Crew : Private
Qualification.Flight Crew : Multiengine
Experience.Flight Crew.Total : 4500
Experience.Flight Crew.Last 90 Days : 60
Experience.Flight Crew.Type : 400
ASRS Report Number.Accession Number : 1529219

Events

Anomaly.Deviation - Altitude : Excursion From Assigned Altitude
Anomaly.Inflight Event / Encounter : Weather / Turbulence
Anomaly.Inflight Event / Encounter : Loss Of Aircraft Control
Detector.Person : Flight Crew
When Detected : In-flight

Result.Flight Crew : Requested ATC Assistance / Clarification
Result.Flight Crew : Regained Aircraft Control
Result.Air Traffic Control : Issued New Clearance

Assessments

Contributing Factors / Situations : Weather
Primary Problem : Weather

Narrative: 1

IFR flight [and I] departed VFR having been issued the IFR clearance on the ground and having agreed to "pick it up" in the air from [ATC]. On the climb, following the filed route, I was assigned 10,000 feet by Controller and told to stand by for IFR clearance. While on the climb to, or shortly after leveling off at the assigned altitude of 10,000 feet, and immediately upon receiving a "ready to copy clearance" call from the Controller with my IFR clearance, I encountered severe turbulence leading to a momentary loss of control of the aircraft. Roll +/- 70 degrees, pitch down 45 degrees. Loss of altitude +/- 100 feet.

My response was "unable severe turbulence struggling to maintain control". [Controller's] response: Altitude your discretion. Commenced 180 degree turn, announced it, and the Controller responded "heading your discretion". During the turn I experienced another severe turbulence event that once again caused momentary loss of control, with immediate recovery to steady flight.

A few seconds later, in relatively smoother air I descended to 6,500 feet. I then asked and received an alternate IFR clearance to [destination]. Flight concluded uneventfully.

Nothing could have been done to avoid the situation except avoiding the area altogether, or, if I had received the IFR clearance earlier, perhaps an earlier climb may have put me above the rough air. Impossible to tell.

Synopsis

EA50 pilot reported loss of control in flight at 10,000 feet after encountering severe turbulence.

Time / Day

Date : 201803
Local Time Of Day : 0601-1200

Place

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

Environment

Weather Elements / Visibility : Rain
Weather Elements / Visibility : Thunderstorm
Weather Elements / Visibility.Visibility : 2
Ceiling.Single Value : 1000
RVR.Single Value : 4000

Aircraft

Reference : X
ATC / Advisory.UNICOM : ZZZ
Aircraft Operator : Corporate
Make Model Name : Caravan Undifferentiated
Operating Under FAR Part : Part 91
Flight Plan : VFR
Mission : Skydiving
Flight Phase : Landing
Route In Use : Visual Approach

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 : Instrument
Qualification.Flight Crew : Commercial
Qualification.Flight Crew : Multiengine
Experience.Flight Crew.Total : 800
Experience.Flight Crew.Last 90 Days : 50
Experience.Flight Crew.Type : 30
ASRS Report Number.Accession Number : 1529217

Events

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

Result.Flight Crew : Took Evasive Action
Result.Flight Crew : Regained Aircraft Control

Assessments

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

Narrative: 1

I landed at ZZZ and went 200 feet into the open field which is beyond the touch down zone end of the runway and into the drop zone. A heavy storm and rain shower had immediately just passed. I made a normal approach which usually gives plenty of stopping distance instead of a longer approach for a wet runway. After touching down I applied brakes and immediately started to hydroplane causing the plane to fishtail. I released the brakes to let the plane roll and put the aircraft into reverse. I decided to not go around as the fishtail had caused me to become off center line and I feared adding power would increase the hydroplaning. Having just flown into the area from [a nearby] airport, I spoke with company on the radio and told them I was coming to park because of the bad weather so I knew there were no skydivers [on] the field. I knew the other Skydive companies were parked and no one was jumping. Having to do a low approach due to rain showers, I also saw that there was no one on or near the open field which is the drop zone. After the hydroplane and putting the aircraft into reverse, I knew the field was open so I let the aircraft roll and went into the field about 200 feet where I was able to apply the brakes and stop. I turned around and parked the aircraft. I was the only person in the aircraft and no damage was done.

The heavy rain and me not allowing for additional stopping distance by landing where I usually do were contributing factors. I believe that because I had flown through heavy rain that had made it very difficult to see for roughly 30 seconds on the downwind leg of approach, that I was more concerned with getting on the ground than thinking about making a longer approach to compensate for the extremely wet conditions. I did not initiate a go around because of the hydroplaning right after landing and being off center line and knowing I still had plenty of distance to stop with the open field.

I understand my decision and lack of forethought and judgment could have proved not safe in another scenario. I will be reflecting on this mistake and make sure I always provide myself with extra runway and make an appropriate approach anytime the weather is bad and wet.

Synopsis

C208 pilot reported a runway excursion after hydroplaning during landing rollout on a wet runway.

Time / Day

Date : 201803

Local Time Of Day : 1201-1800

Place

Locale Reference.ATC Facility : NCT.TRACON

State Reference : CA

Altitude.MSL.Single Value : 4400

Environment

Flight Conditions : VMC

Weather Elements / Visibility.Visibility : 10

Light : Daylight

Aircraft

Reference : X

ATC / Advisory.TRACON : NCT

Aircraft Operator : Personal

Make Model Name : PA-46 Malibu/Malibu Mirage/Malibu Matrix

Crew Size.Number Of Crew : 1

Operating Under FAR Part : Part 91

Flight Plan : IFR

Mission : Training

Flight Phase : Final Approach

Route In Use : Vectors

Airspace.Class C : SJC

Person

Reference : 1

Location Of Person.Aircraft : X

Location In Aircraft : Flight Deck

Reporter Organization : Personal

Function.Flight Crew : Single Pilot

Function.Flight Crew : Pilot Flying

Qualification.Flight Crew : Private

Qualification.Flight Crew : Instrument

Experience.Flight Crew.Total : 589

Experience.Flight Crew.Last 90 Days : 26

Experience.Flight Crew.Type : 64

ASRS Report Number.Accession Number : 1528899

Human Factors : Situational Awareness

Human Factors : Workload

Human Factors : Communication Breakdown

Communication Breakdown.Party1 : Flight Crew

Communication Breakdown.Party2 : ATC

Events

Anomaly.ATC Issue : All Types

Anomaly.Deviation - Speed : All Types

Anomaly.Deviation - Procedural : Clearance
Anomaly.Deviation - Procedural : Published Material / Policy
Anomaly.Inflight Event / Encounter : Weather / Turbulence
Detector.Person : Flight Crew
When Detected : In-flight
Result.Flight Crew : Returned To Clearance

Assessments

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

Narrative: 1

I was returning from an IPC (Instrument Proficiency Check), and was inbound back into San Jose on final. Without warning, the controller issued vector instructions directly into terrain. The controller then issued another set of instructions on a different vector, cutting across the approach corridor into SJC, with a speed restriction. This continued for several minutes. At one point, the plane made a complete figure eight, before another controller came online (presumably the supervisor) and gave me different vectors and sequenced me back into the approach.

All the time, the first controller kept issuing these bizarre sequencing instructions with a climb and descent in the same block of airspace. Due to frequency congestion, and workload, concerned about terrain, I was having trouble maintaining the assigned speed restriction, with turbulence being a complicating factor. (I was worried he was getting me just under inbound jet traffic, so was trying to get down as fast as possible, without stressing the airframe, and while maintaining a speed restriction, all while being worried about terrain and traffic below. I suspect the controller was as well.)

I finally simply stated that speed deviations were occurring to turbulence and left it at that. I was finally handed off to tower, and asked them if they still wanted the same speed restriction and they removed it.

Candidly, I think this situation would have been better served by canceling the approach clearance and issuing vectors for re-sequencing. I doubt it was safe for anyone to have an aircraft crisscrossing the approach corridor to a major airport doing figure eights and climbing/descending on top of rocks and across inbound traffic, particularly with trainer traffic for RHV wedged below.

In addition, it should be made clear in comms of ATC's desire for speed restrictions during immediate climbs and descents vs. vacating altitudes and being less concerned about them. There's a trade-off there and given the controller's behavior it wasn't clear what we were optimizing for in this particular situation.

For me, I should have resisted the temptation to reduce frequency chatter and demanded a proper missed with vectors. While this story ended well, in IMC, that sequence of events would have been even more challenging. I will speak up much more strongly should this situation ever manifest in the future.

Synopsis

PA46 pilot reported receiving multiple heading and speed changes in IMC and turbulence in the vicinity of higher terrain while on an arrival corridor.

Time / Day

Date : 201803

Local Time Of Day : 1201-1800

Place

Locale Reference.Airport : ZZZ.Airport

State Reference : US

Altitude.MSL.Single Value : 40000

Environment

Weather Elements / Visibility : Thunderstorm

Weather Elements / Visibility : Turbulence

Light : Daylight

Aircraft

Reference : X

ATC / Advisory.Center : ZZZ

Aircraft Operator : Air Carrier

Make Model Name : B737-700

Crew Size.Number Of Crew : 2

Operating Under FAR Part : Part 121

Flight Plan : IFR

Mission : Passenger

Flight Phase : Cruise

Airspace.Class A : ZZZ

Person

Reference : 1

Location Of Person.Aircraft : X

Location In Aircraft : Flight Deck

Reporter Organization : Air Carrier

Function.Flight Crew : First Officer

Function.Flight Crew : Pilot Not Flying

Qualification.Flight Crew : Air Transport Pilot (ATP)

Experience.Flight Crew.Last 90 Days : 200

Experience.Flight Crew.Type : 1700

ASRS Report Number.Accession Number : 1528311

Human Factors : Situational Awareness

Events

Anomaly.Flight Deck / Cabin / Aircraft Event : Illness

Anomaly.Deviation - Speed : All Types

Anomaly.Deviation - Procedural : Published Material / Policy

Anomaly.Inflight Event / Encounter : Weather / Turbulence

Anomaly.Inflight Event / Encounter : Loss Of Aircraft Control

Detector.Automation : Aircraft Other Automation

Detector.Person : Flight Crew

When Detected : In-flight

Result.General : Physical Injury / Incapacitation

Result.Flight Crew : Took Evasive Action
Result.Flight Crew : Regained Aircraft Control
Result.Flight Crew : FLC Overrode Automation
Result.Air Traffic Control : Issued New Clearance

Assessments

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

Narrative: 1

Flight Attendants were briefed of weather conditions east and in the vicinity of the airport prior to takeoff, necessitating an early cabin cleanup. Cruising at FL400 approximately 70 NM east and painting no weather returns on the radar, the Captain and I simultaneously noticed rapidly building convective activity at our 12 o'clock position. The Captain began an immediate left turn in an attempt to avoid the area and seated the Flight Attendants via a public address. I notified ATC we were deviating left of course for weather. Soon after, the aircraft entered moderate turbulence, during which the aircraft experienced intermittent low speed stick shaker two different times and bank angle exceeded 45 degrees once. The Captain disconnected autopilot and autothrottles [and] used appropriate pitch and roll inputs while adding power to recover from the stall indications.

It was evident a descent was necessary to gain flying airspeed, so I informed ATC we were descending to FL380 and that we encountered moderate turbulence from convective activity that was not painting on the weather radar. The aircraft recovered at FL380 and ATC gave us pilot discretion descent to FL350. The Captain checked on the Flight Attendants after the event to get the status of all Passengers and Crew while I flew the aircraft and talked to ATC. It was discovered that one of the Flight Attendants hit her head, was emotionally distraught, but did not need immediate medical attention. We were told that no Passengers sustained any injuries. The fasten seatbelt sign remained on during the remainder of the flight, and landing was uneventful.

After landing and just prior to all Passengers deplaning, I discovered that a Passenger who was in the aft lavatory hit [their] head during the turbulence event. I gathered information on the Passenger and passed it on to an Operations Supervisor. The Operations Supervisor called EMS and an assessment was performed. After the assessment with EMS, the Passenger chose to not receive further treatment and exited the aircraft, as this was [their] final destination. The Captain called Dispatch to work any and all issues with Maintenance and Scheduling. The B and C Flight Attendants were pulled from the next leg, and after getting two new Flight Attendants, we continued on.

Synopsis

B737-700 First Officer reported that they encountered moderate turbulence causing momentary loss of control.

Time / Day

Date : 201803

Local Time Of Day : 1801-2400

Place

Locale Reference.Airport : MEM.Airport

State Reference : TN

Environment

Flight Conditions : IMC

Weather Elements / Visibility : Turbulence

Light : Night

Aircraft : 1

Reference : X

ATC / Advisory.TRACON : M03

Aircraft Operator : Air Carrier

Make Model Name : B757-200

Crew Size.Number Of Crew : 2

Operating Under FAR Part : Part 121

Flight Plan : IFR

Mission : Cargo / Freight

Flight Phase : Final Approach

Airspace.Class B : MEM

Aircraft : 2

Reference : Y

ATC / Advisory.Tower : MEM

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

Flight Phase : Final Approach

Airspace.Class B : MEM

Person

Reference : 1

Location Of Person.Aircraft : X

Location In Aircraft : Flight Deck

Reporter Organization : Air Carrier

Function.Flight Crew : Pilot Flying

Function.Flight Crew : Captain

Qualification.Flight Crew : Air Transport Pilot (ATP)

ASRS Report Number.Accession Number : 1527933

Analyst Callback : Completed

Events

Anomaly.Deviation - Track / Heading : All Types
Anomaly.Deviation - Procedural : Clearance
Anomaly.Inflight Event / Encounter : Weather / Turbulence
Anomaly.Inflight Event / Encounter : Wake Vortex Encounter
Detector.Person : Flight Crew
Detector.Person : Air Traffic Control
When Detected : In-flight
Result.Flight Crew : Returned To Clearance

Assessments

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

Narrative: 1

While on final approach into Memphis landing Runway 18L, aircraft encountered significant wake turbulence (believed to be from the aircraft arriving Runway 18R) that caused crew to disconnect autopilot to recover. Aircraft drifted east of course, but crew did their best to fly a heading that brought them back over to the localizer course. Approach did call saying we were east of localizer. We acknowledged the call, told them we encountered the wake turbulence and were correcting back to localizer. We re-established on localizer, intercepted the glideslope, and were stable by the 1000 ft parameter. We landed without any other issues. Crew also wondered if the ILS critical area was being protected for the approach.

Weather was a factor with strong winds out of the west which we believed caused our wake turbulence encounter. Not sure how to avoid wake turbulence issues with low ceilings and strong crosswinds coming into a major hub with all traffic being vectored around.

Synopsis

B757 Captain reported a track excursion occurred when they encountered wake turbulence on final approach to MEM Runway 18L.

Time / Day

Date : 201803

Local Time Of Day : 0601-1200

Place

Locale Reference.Airport : ATL.Airport

State Reference : GA

Altitude.AGL.Single Value : 700

Environment

Weather Elements / Visibility.Visibility : 8

Light : Dawn

Ceiling.Single Value : 5000

Aircraft

Reference : X

Aircraft Operator : Air Carrier

Make Model Name : B767-300 and 300 ER

Crew Size.Number Of Crew : 2

Operating Under FAR Part : Part 121

Flight Plan : IFR

Mission : Cargo / Freight

Nav In Use.Localizer/Glideslope/ILS : Runway 08L

Flight Phase : Final Approach

Airspace.Class B : ATL

Component

Aircraft Component : ILS/VOR

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 Not Flying

Function.Flight Crew : First Officer

Qualification.Flight Crew : Air Transport Pilot (ATP)

ASRS Report Number.Accession Number : 1527382

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 Flying
Qualification.Flight Crew : Air Transport Pilot (ATP)
ASRS Report Number.Accession Number : 1527383
Human Factors : Human-Machine Interface
Human Factors : Situational Awareness

Events

Anomaly.Aircraft Equipment Problem : Less Severe
Anomaly.Deviation - Altitude : Excursion From Assigned Altitude
Anomaly.Deviation - Track / Heading : All Types
Anomaly.Inflight Event / Encounter : Weather / Turbulence
Anomaly.Inflight Event / Encounter : CFTT / CFIT
Detector.Automation : Aircraft Terrain Warning
Detector.Person : Flight Crew
When Detected : In-flight
Result.Flight Crew : Overcame Equipment Problem
Result.Flight Crew : FLC complied w / Automation / Advisory
Result.Flight Crew : FLC Overrode Automation
Result.Flight Crew : Became Reoriented
Result.Air Traffic Control : Provided Assistance

Assessments

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

Narrative: 1

This occurred on approach to ATL. It was a Low Altitude Alert call from Tower while on PAPI glidepath. I was the PM. We were arriving at the airport from the northwest for an ILS 8L. There was weather and moderate chop on the arrival all the way down to breaking out of the clouds at 5700 ft. We were on autopilot and had been given direct to BAZAR, the fix before the final approach fix SCHEL. Due to cells at BAZAR we were then given direct to SCHEL. As the first aircraft into ATL this morning, Approach asked us for a PIREP for the ceiling and cleared us to 3000 ft. Approach then asked if we had the field in sight. Since we had broken out at 5700 ft with 8 miles visibility we did have ATL in sight and he cleared us for the visual. The PF adjusted the heading to intercept the localizer outside of SCHEL and approach mode was selected. We were flying the visual and backing up with the localizer.

We intercepted the localizer but the autopilot overshot and had to correct back. We had selected 3000 ft with FLCH and the altitude at SCHEL would have been 2900. The glide slope indicator had come into view and was indicating we were intercepting glide path as expected. As we were approaching SCHEL, the autopilot continued descent through 3000 ft even though the glideslope had not captured and was still showing a 1/2 dot low.

I live in Atlanta and am very familiar with the approaches and obstacles around ATL. As we were well clear of obstacles, we allowed the autopilot to continue the descent while we determined what it was doing. As we crossed SCHEL, we were at 2700 and as the PAPI for 8L was showing all red we agreed to level off there. At that time the glideslope indication

disappeared. We continued level until the PAPI showed we were on glidepath. As we were approaching the PAPI glidepath, the glideslope indication returned and showed we were below glideslope then as the PAPI showed we were on glideslope, the glideslope indication also agreed. We continued the visual approach. Tower cleared us to land 8L when I called per Approaches instructions at SCHEL. At about 700 AGL, when we had been correctly on PAPI and ILS glidepath, Tower called with a low altitude alert and check altimeter 29.85 (we were on 29.87 per ATC). I replied that we showed we were currently in the center of the PAPI glidepath. The landing continued normally. Upon exiting the runway and receiving taxi instructions, I queried Tower about the low altitude alert. He said it was an automated response from the system, but that he agreed our approach looked normal.

I have to assume the system generated low altitude alert had to have been generated earlier when we were below glidepath. I believe we were receiving a false glideslope indication prior to SCHEL and the correct indication when we were on the PAPI glidepath. I still do not know why the aircraft started a descent early.

While we confirmed the correct ILS frequency during the approach brief, I never identified the frequency. I allowed myself to become distracted by the moderate turbulence, giving a PIREP, looking for the airport, and monitoring the localizer overshoot. It is my habit to ensure one of us identifies the frequency and this underscores the reason for that. I have to believe when we were getting the false glideslope, we would not have gotten a good ID. That would have made us extra cautious about that information. We brief the glideslope intercept altitude during the approach brief primarily to ensure that we are not responding to a false glideslope. We should have simply disconnected the autopilot and leveled off at 2900 until crossing SCHEL. As PM it was my responsibility to provide that backup and call that out. It's not the Automations fault. Even though we were flying a visual approach, we were backing it up with the ILS. We do this for safety to ensure our visual is on target. Regardless of my familiarity with an airport, good discipline and safety dictate that if the altitudes or indications of the ILS is off we do the cautious thing and stick to the most conservative altitudes or indications until we have more information.

Narrative: 2

The flight had been told to expect the visual to 8L at ATL. The aircraft was cleared to the fix outside the FAF for the ILS RWY 8L. There was weather around that fix so we asked to proceed direct to the FAF, (SCHEL). We were cleared as requested. As we proceeded to the fix the controller asked us to report the field in sight as he would not be able to clear us for the ILS approach going direct to the FAF (our course was almost perpendicular to the Final Course). We had been cleared to 3000 ft and were in a descent. A few miles prior to the FAF we got the runway in sight and were cleared for the visual to runway 8L. The controller told us to intercept final outside the FAF. I turned the aircraft slightly away so as to intercept final outside the FAF. The altitude selector was set to 3000 ft and the FAF altitude was 2900. We were still descending as the aircraft intercepted the localizer. The autopilot slightly overshoot the final approach course causing a slight distraction as I worked to ensure we got right back on course.

During the turn I realized the aircraft was descending below the selected altitude, 3000 ft. A quick look at the Flight Director showed us needing to continue to descend, however the glideslope indicated a dot low. We quickly realized this was not correct and I disconnected the autopilot and leveled off the aircraft, approximately 2700 ft. I tracked inbound on the Localizer and we tried to ascertain what was wrong, the glideslope then disappeared from view. Seeing the PAPI indicating low, (red lights), it confirmed what we thought that we were below glidepath (I do not believe the altitude went below 2600 ft until we had at least one white light), and soon the PAPI showed us approaching the glideslope, (one

white light), I began a descent so as not to go high. We ended up back on the PAPI glideslope. At some point the ILS glideslope also came back and showed us on the glidepath. While on glidepath inside the FAF tower came up and stated "Low Altitude Warning, check altimeter 29.85." We responded saying we showed centered on the PAPI glidepath (our altimeters were set to 29.87 per ATIS). The tower responded roger, cleared to land. We continued to an uneventful landing. After landing we asked tower about the warning and that at the time he mentioned it we were on glidepath. He just stated the warning was automatic and then he gave us the altimeter reminder based on that warning and that visually we appeared to be on glidepath.

At the time we received the warning we were on glidepath so I can only speculate the warning was either in error or from earlier in the approach. Not really sure why the aircraft did not capture the selected altitude. The situation was exasperated slightly by the fact the aircraft was turning to intercept the final approach course at the time the aircraft should have leveled off and that intercept was a little late causing a slight overshoot of RWY 8L. Because of the weather we shortened our distance to the FAF which placed us a little high. If we had of taken a bigger cut away from the airport we might have been able to prevent intercept of final and level off from occurring simultaneously, and thus maybe a quicker reaction to the lack of a level off. Also we should have identified the ILS. We thought we had a false glideslope which is why we had the indications to descend, but it is possible that maybe the ILS for RWY 26R was still on. If this were true then the glideslope would have been indicating incorrectly. The incorrect glideslope indications did cause temporary confusion and did attribute the descent below the preferred glideslope initially.

Synopsis

B767 flight crew reported they received a low altitude alert from ATL Tower while on the Runway 8L PAPI glidepath.

Time / Day

Date : 201803

Place

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

Environment

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

Aircraft

Reference : X
ATC / Advisory.ATC Facility : ZZZ
Aircraft Operator : Air Taxi
Make Model Name : Eurocopter AS 350/355/EC130 - Astar/Twinstar/Ecureuil
Crew Size.Number Of Crew : 2
Operating Under FAR Part : Part 135
Flight Plan : VFR
Mission : Ambulance
Flight Phase : Cruise
Airspace.Class E : ZZZ

Person

Reference : 1
Location Of Person.Aircraft : X
Location In Aircraft : Flight Deck
Reporter Organization : Air Taxi
Function.Flight Crew : Pilot Flying
Function.Flight Crew : Captain
Qualification.Flight Crew : Commercial
Qualification.Flight Crew : Rotorcraft
Qualification.Flight Crew : Instrument
ASRS Report Number.Accession Number : 1527257
Human Factors : Workload

Events

Anomaly.Deviation - Procedural : Published Material / Policy
Anomaly.Inflight Event / Encounter : VFR In IMC
Anomaly.Inflight Event / Encounter : Weather / Turbulence
Anomaly.Inflight Event / Encounter : Loss Of Aircraft Control
Detector.Person : Flight Crew
When Detected : In-flight
Result.Flight Crew : Regained Aircraft Control
Result.Flight Crew : Became Reoriented

Assessments

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

Narrative: 1

Flight encountered IMC at night on NVGs which resulted in an unusual flight attitude almost immediately. During the regaining control of the aircraft into a stable flight path, no call was made to approach declaring an emergency or a change to the aircraft squawk due to the task saturation. Once the aircraft control was regained and stabilized, we then started with the company IMC procedures, but regained VMC at that time prior to making the appropriate emergency call or squawk. [Operations] was informed that VMC had been regained and we proceeded VFR.

Given the situation, all focus and effort was on aircraft control and any change to radios would have compounded the issue. Had we remained in VMC after regaining control of the aircraft we would then have proceeded with the IMC checklist which includes making the appropriate calls and squawk change.

Synopsis

Helicopter air taxi pilot reported entering instrument condition and an unusual attitude while operating with night vision goggles.

Time / Day

Date : 201803
Local Time Of Day : 0601-1200

Place

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

Environment

Flight Conditions : VMC
Weather Elements / Visibility : Cloudy
Weather Elements / Visibility.Visibility : 10
Light : Daylight
Ceiling.Single Value : 7000

Aircraft : 1

Reference : X
Aircraft Operator : Personal
Make Model Name : Cessna 152
Crew Size.Number Of Crew : 1
Operating Under FAR Part : Part 91
Flight Plan : VFR
Mission : Training
Flight Phase : Takeoff
Airspace.Class D : ZZZ

Aircraft : 2

Reference : Y
Make Model Name : Any Unknown or Unlisted Aircraft Manufacturer
Flight Plan : IFR
Flight Phase : Final Approach
Airspace.Class D : ZZZ

Person

Reference : 1
Location Of Person.Aircraft : X
Location In Aircraft : Flight Deck
Reporter Organization : Personal
Function.Flight Crew : Pilot Flying
Function.Flight Crew : Single Pilot
Qualification.Flight Crew : Private
Experience.Flight Crew.Total : 253
Experience.Flight Crew.Last 90 Days : 0
Experience.Flight Crew.Type : 253
ASRS Report Number.Accession Number : 1527009
Human Factors : Communication Breakdown
Human Factors : Situational Awareness
Human Factors : Training / Qualification

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

Events

Anomaly.Conflict : NMAC
Anomaly.Deviation - Track / Heading : All Types
Anomaly.Deviation - Procedural : Clearance
Anomaly.Inflight Event / Encounter : Weather / Turbulence
Detector.Person : Flight Crew
Miss Distance.Horizontal : 200
Miss Distance.Vertical : 100
When Detected : In-flight
Result.Flight Crew : Became Reoriented
Result.Flight Crew : Took Evasive Action
Result.Air Traffic Control : Provided Assistance

Assessments

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

Narrative: 1

Conditions at takeoff: Ceiling broken at 7,000, scattered at 200 to 600 ft; visibility 10 SM.: Runway 20 active: Wind 180 degrees at 8 kt. I had not flown in six months and wanted to re-familiarize myself with the Cessna 152. The weather was cloudy with a 1 degree C difference between air temperature and dew point. There were one or two planes in the pattern doing touch and goes on runway 20. I decided the weather was within my skill levels for the local flight I had planned.

ATC ground instructed me to taxi to 20. Just before I got to the hold line the tower said I was cleared for an expedited takeoff (my words) with a departure to the southeast rather than the requested south because there was an IFR flight making an approach on runway 2 (opposite end of 20). I acknowledged the clearance and made my takeoff. As I climbed up through 200 feet AGL I was startled at the bad visibility. By the time I got to 500 feet AGL I didn't want to climb anymore for fear of losing sight of the ground. I thought I had started a slow turn to the SE but in a later phone conversation with tower personnel I had turned to the SW. I cannot deny this because I was really distracted by the poor visibility. I was making a turn to the SE when the plane making the IFR approach on 2 came into view to my left, approximately 100 ft above and approximately 200 away. We both took evasive action banking to our respective right. I do not think we would have collided if evasive action had not been taken.

I contacted the tower and requested a return for landing as I did not wish to continue in the poor visible conditions that prevailed. I had become disorientated. The tower stayed in contact with me until I was able to fix my position. I was eventually able to climb to 800 AGL but felt the visibility was too poor to climb above that. I was able to land without further incident. From engine start up to engine shut down .5 hour of Hobbs time elapsed.

Contributing factors: 1) my failure to make a 65 degree turn after takeoff and allowing myself to become too distracted by visual conditions. 2) ATC allowing an IFR approach on

the opposite end of an active runway (20) 3) the spotty poor visibility conditions were not evident from the ground other than the AWOS report of scattered clouds at 200.

Synopsis

C152 pilot reported a NMAC after departure with an opposite direction IFR arrival.

Time / Day

Date : 201803
Local Time Of Day : 0601-1200

Place

Locale Reference.Airport : ROA.Airport
State Reference : VA
Altitude.MSL.Single Value : 8000

Environment

Flight Conditions : VMC
Light : Daylight

Aircraft

Reference : X
ATC / Advisory.Center : ZDC
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 : ZDC

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 : 1526742
Human Factors : Situational Awareness

Events

Anomaly.Deviation - Procedural : Published Material / Policy
Anomaly.Inflight Event / Encounter : Weather / Turbulence
Anomaly.Inflight Event / Encounter : CFTT / CFIT
Detector.Automation : Aircraft Terrain Warning
When Detected : In-flight
Result.General : None Reported / Taken

Assessments

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

Narrative: 1

On left downwind for Runway 24 going into ROA we began experiencing moderate turbulence at about 8,000 feet. We were cleared to descend to 4,000. Being an airport with terrain in all quadrants, I asked for vectors outside of the final approach fix of HIBAN on the RNAV 24. Approach complied and vectored us onto the downwind and turned us base approximately 3 nm outside HIBAN. We had all of the terrain and the field in sight and relayed that to the Controller. We were then cleared to turn direct the field and I turned to a heading that was close to direct and would allow us to intercept the approach course. Runway 24 has no PAPI or VASI nor does it have an ILS so my only form of vertical guidance came from the GPS "snow flake". We were at 4,000 in the turn direct and received an EGPWS terrain warning. It was visual and we had the terrain in sight and I was intercepting the final approach course and starting a slow descent to the FAF altitude of 3,700 feet. I disengaged the autopilot and followed the approach course and the vertical guidance to the runway. About a snow flakes width high just inside the FAF we received our second EGPWS warning. Again in visual conditions well clear of terrain I elected to continue to an albeit very turbulent but normal landing. Wind shear advisories were in effect and surface wind was 260/24/37.

In hindsight perhaps the moderate turbulence and shearing wind contributed to the EGPWS warnings. All terrain was in sight and well cleared and in no way was the aircraft in any sort of undesired state nor was safety compromised. Additionally while turning base to final there is rising terrain on the opposite side of the approach course by several miles and perhaps the forward looking functions sensed that hill based on the turn to final. Moving forward, I intend to fly the full approach to Runway 24 to avoid the left base just outside HIBAN.

Synopsis

Air Carrier Captain reported receiving two EGPWS terrain warnings on a visual approach to ROA Runway 24. Reporter continued the approach to landing because terrain was in sight.

Time / Day

Date : 201803

Local Time Of Day : 1201-1800

Place

Locale Reference.ATC Facility : ZOA.ARTCC

State Reference : CA

Altitude.MSL.Single Value : 23000

Environment

Flight Conditions : Mixed

Weather Elements / Visibility.Visibility : 30

Light : Daylight

Ceiling.Single Value : 21000

Aircraft

Reference : X

ATC / Advisory.Center : ZOA

Aircraft Operator : Air Carrier

Make Model Name : B737-700

Crew Size.Number Of Crew : 2

Operating Under FAR Part : Part 121

Flight Plan : IFR

Mission : Passenger

Flight Phase : Descent

Airspace.Class A : ZOA

Component

Aircraft Component : Air Data Computer

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.Last 90 Days : 325

Experience.Flight Crew.Type : 15000

ASRS Report Number.Accession Number : 1526568

Human Factors : Human-Machine Interface

Human Factors : Situational Awareness

Human Factors : Confusion

Events

Anomaly.Aircraft Equipment Problem : Less Severe
Anomaly.Deviation - Speed : All Types
Anomaly.Deviation - Procedural : Published Material / Policy
Anomaly.Inflight Event / Encounter : Weather / Turbulence
Detector.Person : Flight Crew
When Detected : In-flight
Result.General : Maintenance Action
Result.General : Flight Cancelled / Delayed
Result.Flight Crew : Became Reoriented
Result.Flight Crew : Overcame Equipment Problem

Assessments

Contributing Factors / Situations : Human Factors
Contributing Factors / Situations : Logbook Entry
Contributing Factors / Situations : Aircraft
Contributing Factors / Situations : Weather
Primary Problem : Ambiguous

Narrative: 1

We originated an aircraft that had a writeup from the previous day that made me wonder. It was an Info Only overspeed writeup that said "ACARS reports overspeed 332.7 CAS .658 Mach ..." I remarked to my FO that the writeup made no sense because neither of those numbers should have triggered an overspeed. Later that day we were descending into [the airport] and the aircraft was struggling to stay on VNAV PATH without going fast. We had asked for (and had been relieved) of the STAR speed restriction, so I let the aircraft run. It got up to .813 so I deselected VNAV and for momentary use of CWS (Control Wheel Steering) Pitch to reset the attitude and control the speed. I slowed it down to about .785.

When we were down around FL230 and about to enter a layer, I reached up to turn on the engine anti-ice when I heard the clacker. When I looked down I saw .84! I quickly raised the nose as we entered the layer and started reducing indicated speed. When we landed we received an ACARS message for overspeed of .84 Mach. I called Dispatch and Maintenance Control was brought into the conversation. I described the overspeed and pointed out the writeup from the day previous. I told Maintenance Control Center that something did not make sense.

The previous day's writeup could not have been an overspeed, and ours seemed that way also. I had not seen any trend in increasing Mach prior to looking up the glance at the anti-ice switches and it happened almost instantaneously. Maintenance Control Center put me on hold, and after a very long time returned and said they'd looked at the data and the aircraft had gone to .84; therefore, it would have to be taken out of service for an inspection.

I felt really bad because there is only Contract Maintenance [at this airport] and this would cause a long delay. I apologized to the Crew taking the aircraft and headed towards hotel. The whole thing bugged me, because the previous day's writeup made no sense and I doubted our overspeed was accurate also. I do a lot of test flight work for other aviation organizations, so I refreshed my memory with some resources I had and went online to confirm my suspicion.

After doing some math on my CR-2 computer (Yes, I still carry one of those!) it was clear

that something was wrong. We all know that VMO equals MMO at FL260 that's where 340 KIAS equals .82 Mach. Therefore, at FL230 and 337 CAS, you could not achieve .84 Mach. Mach number is strictly a function of temperature. In order to reach .84 Mach, at FL230 and 337 KCAS, the temperature would have to be plus 35C! For an indicated airspeed of 337 knots, FL230 and ISA would result in typical Mach of .75. Something is wrong.

Synopsis

B737-700 Captain reported an aircraft overspeed, but suspected a faulty air data computer.

Time / Day

Date : 201803
Local Time Of Day : 0601-1200

Place

Locale Reference.Airport : 1H0.Airport
State Reference : MO
Altitude.MSL.Single Value : 4000

Environment

Flight Conditions : IMC
Weather Elements / Visibility : Icing
Weather Elements / Visibility : Rain
Weather Elements / Visibility.Visibility : 8
Light : Daylight
Ceiling.Single Value : 1600

Aircraft

Reference : X
ATC / Advisory.TRACON : T75
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 : IFR
Mission : Personal
Flight Phase : Descent
Route In Use : Direct
Airspace.Class B : STL

Component

Aircraft Component : AHRS/ND
Aircraft Reference : X
Problem : Malfunctioning

Person

Reference : 1
Location Of Person.Aircraft : X
Location In Aircraft : Flight Deck
Reporter Organization : Personal
Function.Flight Crew : Pilot Flying
Function.Flight Crew : Single Pilot
Qualification.Flight Crew : Instrument
Qualification.Flight Crew : Flight Instructor
Experience.Flight Crew.Total : 5000
Experience.Flight Crew.Last 90 Days : 20
Experience.Flight Crew.Type : 700
ASRS Report Number.Accession Number : 1525989

Human Factors : Situational Awareness
Human Factors : Workload

Events

Anomaly.Aircraft Equipment Problem : Less Severe
Anomaly.Deviation - Track / Heading : All Types
Anomaly.Inflight Event / Encounter : Weather / Turbulence
Detector.Person : Flight Crew
When Detected : In-flight
Result.Flight Crew : Became Reoriented
Result.Flight Crew : Landed As Precaution
Result.Flight Crew : Took Evasive Action

Assessments

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

Narrative: 1

There was no mention in a briefing for ice. In fact, the departure from ZZZ was through IMC without incident. Upon reaching the 1H0 area I was offered direct ODUJY and the RNAV 34 into 1H0. At that time a Falcon Jet went into SUS and reported zero ice on the approach. About 10 miles from the fix I entered IMC as I descended through 4,000. Initially, the ice appeared to be light rime but almost immediately I encountered freezing rain and clear/rime mixed with jagged edges on my leading edges and a useless ice covered windscreen. The controller instructed to "maintain 2,200 MSL" then corrected himself to, "maintain 2,600 until ODUJY." The actual altitude for ODUJY is 2,800 and 2,200 at the FAF. I was hand flying the aircraft to avoid autopilot disconnect and un-commanded aerobatics. There seemed no alternative but continue as the ceiling was reported to be at about 2,000 MSL. Just after the FAF, the navigation displays partially malfunctioned, but since I had a heading from ODUJY to the FAF I continued the approach to VMC and the icing abated. I continued to just above circling minimums and after some mild excursions found the airport. As the aircraft shed the significant ice I was able to circle to land 34. I considered the missed approach, but given an unexpected response from the EFIS and heavy ice, I elected to stay VMC. No damage to anything but the pilot's nerves.

Synopsis

Pilot reported descending below the glidepath on an RNAV approach in order to escape icing conditions.

Time / Day

Date : 201803
Local Time Of Day : 1201-1800

Place

Locale Reference.Airport : ZZZ.Airport
State Reference : US
Altitude.MSL.Single Value : 6000

Environment

Flight Conditions : IMC
Weather Elements / Visibility : Icing
Weather Elements / Visibility.Visibility : 2
Light : Daylight
Ceiling.Single Value : 3000

Aircraft

Reference : X
Aircraft Operator : Personal
Make Model Name : M-20 J (201) / Allegro
Crew Size.Number Of Crew : 1
Operating Under FAR Part : Part 91
Flight Plan : IFR
Mission : Passenger
Flight Phase : Descent

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
Experience.Flight Crew.Total : 2160
Experience.Flight Crew.Last 90 Days : 45
Experience.Flight Crew.Type : 1290
ASRS Report Number.Accession Number : 1525984
Human Factors : Troubleshooting
Human Factors : Situational Awareness

Events

Anomaly.Deviation - Altitude : Excursion From Assigned Altitude
Anomaly.Inflight Event / Encounter : Weather / Turbulence
Detector.Person : Flight Crew
When Detected : In-flight
Result.Flight Crew : Took Evasive Action
Result.Air Traffic Control : Issued New Clearance

Assessments

Contributing Factors / Situations : Human Factors

Contributing Factors / Situations : Weather

Primary Problem : Weather

Narrative: 1

Icing forecast but all airports along route forecasting VFR. The first half of the trip was without incident but then at 8000 ft entered clouds. Initially no ice but after 20-30 minutes picked up slight rime ice. Initially descended but ice was worse at 6000 ft. Cleared to 10,000 ft and broke free of clouds at 9000 ft. Later started descent for approach. Held at 6000 ft as this was minimum vectoring altitude. Started picking up significant ice and ATC could not get me lower due to MVA. I knew there were VFR ceilings beneath me so I [advised ATC of conditions]. Descended to 5000 ft and remained clear of clouds to the field and an uneventful landing. The presence of VFR conditions kept me from filing an alternate, and the terrain following GPS assured clearance from mountains. In the future if icing is forecast I will likely arrange to fly to a different airfield to remain clear of the possibility of icing.

Synopsis

M20 pilot reported accumulating ice at the minimum vectoring altitude and resorted to a descent to VFR conditions.

Time / Day

Date : 201803
Local Time Of Day : 0601-1200

Place

Locale Reference.Airport : ISN.Airport
State Reference : ND
Altitude.AGL.Single Value : 50

Environment

Flight Conditions : IMC
Weather Elements / Visibility : Fog
Weather Elements / Visibility.Visibility : .25
Light : Dawn
Ceiling.Single Value : 100

Aircraft

Reference : X
ATC / Advisory.Center : ZLC
Aircraft Operator : Corporate
Make Model Name : SR22
Crew Size.Number Of Crew : 1
Operating Under FAR Part : Part 91
Flight Plan : IFR
Mission : Passenger
Flight Phase : Final Approach
Route In Use : Visual Approach
Airspace.Class E : ZLC

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 : Multiengine
Qualification.Flight Crew : Air Transport Pilot (ATP)
Qualification.Flight Crew : Flight Instructor
Experience.Flight Crew.Total : 4770
Experience.Flight Crew.Last 90 Days : 103
Experience.Flight Crew.Type : 425
ASRS Report Number.Accession Number : 1525981
Human Factors : Situational Awareness

Events

Anomaly.Deviation - Procedural : FAR
Anomaly.Inflight Event / Encounter : Weather / Turbulence
Anomaly.Inflight Event / Encounter : VFR In IMC

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

Assessments

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

Narrative: 1

ISN was reporting 1/4 mile Vis and VV001 upon the time of my approach to Runway 29. The city was in the clear and it looked like patchy fog around the area. After crossing the FAF I was able to see the runway and all approach and runway lights. Since ISN can be a rather busy airport at times, it's normal practice for pilots to cancel IFR as soon as you can maintain VFR. I thought that this was a situation where the airport was just starting to clear up so I went back to center frequency to cancel my IFR flight plan. Being an Instrument pilot with quite a bit of experience, I didn't think twice when I lost sight of the runway at around 500 feet AGL but had clear visual of both the approach lighting system and the runway threshold lights. I thought for sure that I would get the runway in sight shortly after that which prolonged my decision for a potential go around to avoid IMC conditions. I did eventually get the runway in sight but unfortunately temporarily flew into IMC conditions while on a VFR squawk code. I determined that a landing in IMC with runway in sight would be safer than going around in the IMC conditions so I continued to a landing. Lesson learned, don't be so quick to cancel IFR. That approach would have been legal if I stayed on my IFR clearance down to landing. I can honestly see how these types of scenarios could get an inexperienced VFR pilot into a world of trouble. The fog can be deceptive! This is the first time where I experienced a scenario like this.

Synopsis

SR22 pilot reported entering instrument conditions on approach after a premature cancellation of instrument flight plan.

Time / Day

Date : 201803

Local Time Of Day : 0601-1200

Place

Locale Reference.Airport : ZZZZ.Airport

State Reference : FO

Altitude.MSL.Single Value : 7000

Environment

Flight Conditions : IMC

Weather Elements / Visibility : Thunderstorm

Weather Elements / Visibility : Rain

Aircraft

Reference : X

ATC / Advisory.Center : ZZZZ

Aircraft Operator : Air Carrier

Make Model Name : B757 Undifferentiated or Other Model

Crew Size.Number Of Crew : 3

Operating Under FAR Part : Part 121

Flight Plan : IFR

Mission : Passenger

Nav In Use : FMS Or FMC

Flight Phase : Final Approach

Component

Aircraft Component : Ice/Rain Protection System

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 : Captain

Function.Flight Crew : Pilot Flying

Qualification.Flight Crew : Instrument

Qualification.Flight Crew : Air Transport Pilot (ATP)

Qualification.Flight Crew : Multiengine

Experience.Flight Crew.Last 90 Days : 218

Experience.Flight Crew.Type : 3845

ASRS Report Number.Accession Number : 1525793

Human Factors : Time Pressure

Human Factors : Situational Awareness

Human Factors : Workload

Human Factors : Distraction

Person : 2

Reference : 2
Location Of Person.Aircraft : X
Location In Aircraft : Flight Deck
Reporter Organization : Air Carrier
Function.Flight Crew : First Officer
Function.Flight Crew : Pilot Not Flying
Qualification.Flight Crew : Air Transport Pilot (ATP)
Qualification.Flight Crew : Multiengine
Qualification.Flight Crew : Instrument
Experience.Flight Crew.Last 90 Days : 182
Experience.Flight Crew.Type : 3337
ASRS Report Number.Accession Number : 1525808
Human Factors : Time Pressure
Human Factors : Situational Awareness
Human Factors : Distraction
Human Factors : Workload

Person : 3

Reference : 3
Location Of Person.Aircraft : X
Location In Aircraft : Flight Deck
Reporter Organization : Air Carrier
Function.Flight Crew : First Officer
Function.Flight Crew : Pilot Not Flying
Qualification.Flight Crew : Air Transport Pilot (ATP)
Qualification.Flight Crew : Multiengine
Qualification.Flight Crew : Instrument
Experience.Flight Crew.Last 90 Days : 14
Experience.Flight Crew.Type : 271
ASRS Report Number.Accession Number : 1525806
Human Factors : Time Pressure
Human Factors : Situational Awareness
Human Factors : Distraction
Human Factors : Workload

Events

Anomaly.Aircraft Equipment Problem : Less Severe
Anomaly.Flight Deck / Cabin / Aircraft Event : Other / Unknown
Anomaly.Deviation - Procedural : Published Material / Policy
Anomaly.Inflight Event / Encounter : Weather / Turbulence
Detector.Person : Flight Crew
When Detected : In-flight
Result.General : Maintenance Action
Result.Flight Crew : Overcame Equipment Problem
Result.Flight Crew : Executed Go Around / Missed Approach
Result.Air Traffic Control : Provided Assistance

Assessments

Contributing Factors / Situations : Aircraft
Contributing Factors / Situations : Company Policy
Contributing Factors / Situations : Human Factors

Contributing Factors / Situations : Weather
Primary Problem : Ambiguous

Narrative: 1

On approach to the Airport, a possible static discharge or lightning strike was encountered while descending through approximately FLO70 on downwind followed by an R ENGINE ANTI-ICE EICAS message. The QRH checklist was initiated but was not finished due to time constraints as the approach clearance was given shortly thereafter. A sharp intercept vector to final from Approach combined with a 40-knot crosswind component at altitude prevented the flight guidance from completely capturing the localizer, which also prevented it from capturing the glide slope.

A go-around was executed passing the final approach fix. The initial climb was runway heading to FLO60. The Relief Pilot then completed the QRH checklist, which stated the requirement to avoid icing conditions. A heading and descent to 4,000 feet was requested to VMC conditions. At this point, visual contact and visual separation was maintained with the terrain. A further descent was requested to 3,000 feet into uncontrolled airspace in order to maintain VMC conditions and a warmer Total Air Temperature (TAT) due to rain showers in the area. Even though the lower altitude was below the MSA per the ILS 21 approach chart, it was not below the radar minimum altitude. After maintaining VMC conditions and/or maintaining the TAT above the engine anti-ice requirement, the approach was requested and resumed. The remainder of the approach and landing was uneventful. It did become apparent during the vectoring that other aircraft were being issued holding clearances to allow us to land, hence the priority handling from ATC.

Adding to the challenge was a FAA inspector in the cockpit riding jumpseat, which in and of itself should not have been an issue. However, upon gate arrival after setting the parking brake and shutting down the engines I took a moment to immediately enter the maintenance discrepancies into the ACARS. Prior to calling for the parking checklist and finishing our cockpit duties, the FAA inspector began to debrief us with his thoughts, including the failure to comply with his request that we make a PIREP to Approach about the possible lightning strike. He questioned me about the go-around decision and the subsequent steps that were taken to avoid icing conditions. A full cockpit debriefing then ensued amongst us all for approximately five or ten minutes. A final item in the debriefing was that the inspector said I needed to file a report with the company regarding the lightning strike. To me this meant a company report, and with him still in the cockpit, I referenced the FOM requirements for a company report and a lightning strike. Nothing was found, but he still insisted that I should file a company report. So, at this point I thought perhaps I should at least verbally debrief the dispatcher, and I got out of my seat and exited the aircraft to look for an agent and a cell phone to call. The only scenario that I could possibly imagine to require a company report was priority handling from ATC. I finally found an agent, and they said they would have a cell phone brought down in a few minutes. I returned to the cockpit, and the First Officer and Relief Pilot were readying to leave the aircraft. Later that afternoon at the hotel, a stark reality occurred to me: the parking checklist was never called for or performed. The parking brake was set/verified set and the parking flow was completed after the engines were shut down, but the actual parking checklist was not.

In my opinion, this was the resultant of a flight accented with a barrage of questions about B757 systems and navigation capabilities, actual SATCOM demonstration test calls to Oceanic Control Centers, and queries about North Atlantic normal and contingency procedures. While I was trying to eat my crew meal, I spent nearly fifteen minutes trying to prove to the FAA inspector that our transponder code was supposed to be set to code

2000 after 30 minutes into the oceanic track. The inspector insisted that the squawk code should remain the same all the way into Santa Maria airspace. I easily located the transponder procedures in the [Company manual], but the inspector only relented after I showed him the panel notes from the Jeppesen AT 1-2 chart, which was the same information verbatim in the [Company manual]. I hesitate with this description of events, and I do not want to appear to be complaining about this particular inspector or even about having an enroute inspection. Actually, I usually find FAA inspectors to be quite interesting personally and professionally. However, at the very least this FAA inspector became a distraction with his inquisitiveness beginning with the cockpit preflight and lasting up to and including the approach phase by stating during sterile cockpit that we needed to make a PIREP to Approach regarding the possible lightning strike. I certainly had no idea that the flight would culminate with a post flight threat.

After returning from the trip, I did manage to have a short conversation with my assistant Chief Pilot about what is usually considered normal for an enroute inspection. My assistant Chief Pilot was candid and basically said it was up to the individual inspector, which is what I was expecting him to say. Also, we, as a crew, debriefed this event a second time with fresh eyes on the return flight. I asked the First Officer if we ran the parking checklist after arriving. The "deer in headlights" look was an obvious "no." I then asked, "What could we have realistically done better?" The obvious answer was to complete the parking checklist. The Relief Pilot stated he could tell that we, as the pilot flying and the pilot monitoring, were becoming task saturated and he should have self-initiated the QRH checklist for the R ENGINE ANTI-ICE EICAS message. In hindsight, I now recognize my own task saturation when I heard the FAA inspector state that we needed to make the PIREP to Approach, but being focused on flying the approach, I failed to follow up when the First Officer did not make the radio report. And, the first officer being hard of hearing, which is another threat in itself, simply may not have heard the request from the inspector in the first place. I also recognize that I failed to heed a better suggestion from the First Officer for shorter route in visually deviating around the weather to the final approach course, which may also have kept us from descending to a lower altitude. I thought the view out of my window was good, but the view out of my First Officer's window was probably better. My final thoughts of the event overall are positive. Not positive in the sense that we failed to follow proper checklist discipline, but that this event truly was a real world learning experience that was fraught with threats. I pride myself with my own checklist discipline, and I was really taken aback when I realized that we failed to follow proper checklist procedures. In the future, I will endeavor to complete the parking checklist in a prompt manner upon gate arrival...no exceptions.

Note: Prior to our return flight to Newark, I briefly spoke with the contract maintenance technician that met our arriving flight, and he found no evidence of a lightning strike.

Narrative: 2

[Report narrative contained no additional information.]

Narrative: 3

[Report narrative contained no additional information.]

Synopsis

B757 flight crew reported encountering either a lightning strike or static discharge while on approach, which rendered anti-ice system inoperative.

Time / Day

Date : 201803
Local Time Of Day : 0601-1200

Place

Locale Reference.Airport : LEX.Airport
State Reference : KY

Environment

Flight Conditions : IMC
Weather Elements / Visibility : Snow
Weather Elements / Visibility.Visibility : 1
Light : Daylight
Ceiling.Single Value : 500

Aircraft

Reference : X
ATC / Advisory.Tower : LEX
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
Nav In Use.Localizer/Glideslope/ILS : Runway 22
Flight Phase : Initial Approach
Airspace.Class C : LEX

Person

Reference : 1
Location Of Person.Aircraft : X
Location In Aircraft : Flight Deck
Reporter Organization : Air Carrier
Function.Flight Crew : Pilot Flying
Function.Flight Crew : Captain
Qualification.Flight Crew : Air Transport Pilot (ATP)
Qualification.Flight Crew : Instrument
Qualification.Flight Crew : Multiengine
ASRS Report Number.Accession Number : 1525537

Events

Anomaly.ATC Issue : All Types
Anomaly.Deviation - Procedural : Published Material / Policy
Anomaly.Inflight Event / Encounter : Weather / Turbulence
Detector.Person : Flight Crew
Were Passengers Involved In Event : N
When Detected : In-flight
Result.Flight Crew : Requested ATC Assistance / Clarification
Result.Flight Crew : Executed Go Around / Missed Approach

Assessments

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

Narrative: 1

This started with an ILS to Runway 4 at LEX. ATIS listed visibility at 1 1/4 mile 500 ft overcast, snow, wet runway with braking reported 5/5/5. During the approach at approximately the FAF, the localizer went out of service. We broke off the approach with the Controller and he vectored us around for another attempt at Rwy 4. We re-vectored again with localizer appearing to work and then failing again (I wondered at this point if the localizer was being interfered with by snow accumulation or snow vehicles removing snow). The Controller offered ILS Rwy 22 and when we queried the winds, they were 050/5. Braking was reported as good with a wet runway. We commenced the approach and broke out at minimums to a snow covered runway. I landed without incident, but upon brake activation, the brakes were nominally effective. I kept the thrust reversers deployed at max reverse until the airplane was nearly stopped.

After shutdown, I contacted the Control Tower and wanted to know why there was nothing reported as to snow or runway condition. The Controller told me that was all based on Lexington Airport Ops and they make the calls. How they can call a 'wet' runway and proceed to plow the runway immediately after our landing is concerning. There is a major disconnect on how this information is collected and disseminated to pilots. I was certainly not given all the information I should have received to conduct this operation with safety. If all information would have been made available, I would have elected to divert to our filed alternate.

Synopsis

Air Carrier Captain reported poor braking on landing in LEX on a snow covered runway that had been reported as "wet".

Time / Day

Date : 201803

Local Time Of Day : 1201-1800

Place

Locale Reference.ATC Facility : ZMA.ARTCC

State Reference : FL

Environment

Flight Conditions : IMC

Weather Elements / Visibility : Turbulence

Aircraft

Reference : X

ATC / Advisory.Center : ZMA

Make Model Name : Any Unknown or Unlisted Aircraft Manufacturer

Person

Reference : 1

Location Of Person.Facility : ZMA.ARTCC

Reporter Organization : Government

Function.Air Traffic Control : Enroute

Qualification.Air Traffic Control : Fully Certified

ASRS Report Number.Accession Number : 1525374

Human Factors : Communication Breakdown

Human Factors : Workload

Human Factors : Time Pressure

Communication Breakdown.Party1 : ATC

Communication Breakdown.Party2 : ATC

Events

Anomaly.ATC Issue : All Types

Anomaly.Conflict : Airborne Conflict

Anomaly.Deviation - Procedural : Published Material / Policy

Anomaly.Inflight Event / Encounter : Weather / Turbulence

Detector.Person : Air Traffic Control

When Detected : In-flight

Result.Air Traffic Control : Issued Advisory / Alert

Result.Air Traffic Control : Separated Traffic

Assessments

Contributing Factors / Situations : Airspace Structure

Contributing Factors / Situations : Company Policy

Contributing Factors / Situations : Human Factors

Contributing Factors / Situations : Procedure

Contributing Factors / Situations : Staffing

Contributing Factors / Situations : Weather

Primary Problem : Company Policy

Narrative: 1

Today, ZMA's TMU and management let us and the aircraft down again by forcing us and the airplanes through weather. It is a known problem that they push the airplanes through the weather until they literally will not go through it. "They won't take off if they don't want to fly through it" and "We can't leave the airplanes on the ground" is literally the mentality verbally shared with us. I do believe this will change because it is not sustainable, and I hope it changes prior to there being a weather related accident. At least once during this session, moderate turbulence is reported and I am unable to fill out a PIREP myself, or monitor if the D-side did because of how busy I am trying to separate aircraft. Thanks to conflict alert, there were no loss of standard separations noted during this session.

Although weather is dynamic and never the same, there are very predictable patterns in south Florida. There are often bands of weather that push east, hence pushing aircraft and their routes east, until there is a head on situation. Once this head on situation develops, we continue to depart airplanes into the arrivals head on. Finally, after there is panic and a dangerous situation has turned extremely unsafe, our go-to move is to ground stop the aircraft. Although this is effective, it is extremely delayed. There were at least 1 to 2 dozen aircraft placed too close to other aircraft or weather in this instance alone. What should be done is slow down the aircraft, or reroute the aircraft, and if that doesn't work, then ground stop. What happens regularly is they see a small gap in weather, so they launch as many departures as possible to avoid delays (again, "The aircraft cannot wait on the ground" mentality). Now once the gap closes, there are 5+ airplanes already airborne and aiming towards the gap of weather that has since closed, and more airplanes rolling down the runway. Ideally, if a situation is becoming more and more dangerous, a recommendation would be to slow or cease the operation, or somehow change it, instead of making it worse by launching them all and just expecting it to work.

Synopsis

ZMA Controller reported TMU and facility management forced controllers to work aircraft through weather.

Time / Day

Date : 201803
Local Time Of Day : 0601-1200

Place

Locale Reference.Airport : ZZZ.Airport
State Reference : US
Relative Position.Distance.Nautical Miles : 3
Altitude.MSL.Single Value : 12000

Environment

Flight Conditions : VMC
Weather Elements / Visibility.Visibility : 10
Light : Dusk
Ceiling.Single Value : 3000

Aircraft

Reference : X
ATC / Advisory.Center : ZZZ
Aircraft Operator : Personal
Make Model Name : Cessna 162 Skycatcher
Crew Size.Number Of Crew : 1
Operating Under FAR Part : Part 91
Flight Plan : VFR
Mission : Personal
Flight Phase : Cruise

Person

Reference : 1
Location Of Person.Aircraft : X
Location In Aircraft : Flight Deck
Reporter Organization : Personal
Function.Flight Crew : Instructor
Function.Flight Crew : Pilot Flying
Qualification.Flight Crew : Commercial
Qualification.Flight Crew : Instrument
Qualification.Flight Crew : Flight Instructor
Qualification.Flight Crew : Multiengine
Experience.Flight Crew.Total : 1005
Experience.Flight Crew.Last 90 Days : 352
Experience.Flight Crew.Type : 210
ASRS Report Number.Accession Number : 1525318
Human Factors : Troubleshooting
Human Factors : Time Pressure
Human Factors : Situational Awareness

Events

Anomaly.Aircraft Equipment Problem : Critical
Anomaly.Inflight Event / Encounter : VFR In IMC

Anomaly.Inflight Event / Encounter : Weather / Turbulence

Detector.Person : Flight Crew

When Detected : In-flight

Result.Flight Crew : Landed in Emergency Condition

Result.Flight Crew : Diverted

Result.Air Traffic Control : Issued New Clearance

Result.Air Traffic Control : Provided Assistance

Assessments

Contributing Factors / Situations : Aircraft

Contributing Factors / Situations : Weather

Primary Problem : Ambiguous

Narrative: 1

Departed [in the evening for return flight]. The weather was marginal winds had decreased, ceilings were around 2,000-2,800 with precipitation along entire flight. Departed north bound activated VFR flight plan. [Within about 25 nm] we confirmed we were going to have to stay low along [the highway]. To the west there was blue sky, we decide to climb to fly VFR on top back to [where] there was VFR conditions at with sky clear. As we climb to VFR conditions we were on top at 9,000 feet MSL as we continue north we were caused to have to climb higher after 20 miles at 9,000 feet. To continue VFR conditions we were at 12,500 feet. Temp was -12c wind was 200 @ 40 kts. As we approached ZZZ we experienced light engine roughness, at this point the sun was beginning to set, we were above a solid overcast layer at 13,000 feet MSL with freezing levels at 5,000 feet MSL. We were trying to circle and try and find a hole over ZZZ. I tried to improve the engine roughness with adjusting mixture for altitude, carb heat. When I pulled carb heat I had a severe engine drop in RPM at this point I realized we were in a emergency situation and there was a possibility we could have an engine failure with the temperature so cold the carb heat was not effective. The temperature dew point spread was within a degree of each other. After a few minutes of trying to find a hole in the overcast layer and troubleshooting the engine roughness. I called ATC center as I was not on flight following at the time. I called them and [advised them of the situation] and they gave me a transporter code. They asked me my intentions I told them I needed to get on the ground soon and I did not have the ability to shoot an approach and the risk of ice. ZZZ1 was reporting VFR conditions ATC advised me to continue to ZZZ1, The precipitation was the lightest. They cleared me to ZZZ1 via radar vectors 270 heading, at this point I was at 13,500 feet they wanted me to descend lower I told them I needed to stay VFR for ice conditions so I requested to stay higher they cleared me for 14,000 feet. As I was heading to ZZZ1 I realized I was facing a 40 knot head wind with a ground speed of 38 knots, temperature -15c. As we were heading towards ZZZ1, is where things started to get worse the engine was running very rough at this point I could not maintain altitude I was just on the edge of stall speed with the stall warning going off. I advised ATC that I would not be able to make it to ZZZ1 and asked them for any other airport nearby with better weather there was nothing with better weather that we would be able to stay VFR. I made the decision to attempt ZZZ knowing I would have to take a C162 IMC into Ice conditions. At this point I did not see any other options with the engine running so roughly and not improving. I definitely thought the engine was going to quit with carb heat on and barely running. ATC instructed me to turn to a heading and decided to 7,000 I used G300 to find ZZZ airport put the GPS into OBS mode and selected heading 120 for runway 12. I entered IMC at 13,200 feet MSL -14c, the sun had set by now and it was dark the temp was dropping we were picking up ice on the descent. I was descending at a rapid rate to get to warmer temperature. ATC was talking me though different heading to fly to get me

lined up for the airport runway 12. They were able to get me to 4,000 feet MSL we were still IMC with temperature +1c. They could not clear me any lower with the runway in front of me. I changed to UNICOM 122.8 so I could turn the runway lights on. I turned on terrain function on the G300 and descended lower to see the airport at 3,500 feet MSL. I went back to ATC to report field in sight and I was going to land there. We were greeted by the fire department and EMTs. I called FSS and closed VFR flight plan.

Synopsis

C162 pilot reported diverting through ice and instrument conditions due to a rough running engine.

Time / Day

Date : 201803
Local Time Of Day : 1201-1800

Place

Locale Reference.Airport : BHM.Airport
State Reference : AL
Altitude.MSL.Single Value : 1500

Environment

Flight Conditions : IMC
Light : Daylight
Ceiling.Single Value : 1200

Aircraft

Reference : X
ATC / Advisory.Tower : BHM
Aircraft Operator : Fractional
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 : GPS
Flight Phase : Initial Approach
Airspace.Class C : BHM

Person

Reference : 1
Location Of Person.Aircraft : X
Location In Aircraft : Flight Deck
Reporter Organization : Fractional
Function.Flight Crew : Captain
Qualification.Flight Crew : Commercial
ASRS Report Number.Accession Number : 1525201
Human Factors : Situational Awareness

Events

Anomaly.Inflight Event / Encounter : Weather / Turbulence
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 : Environment - Non Weather Related
Contributing Factors / Situations : Human Factors

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

Narrative: 1

The weather at BHM was reported as ceiling 1,200. We chose to fly the RNAV 36, an LNAV approach with an MDA of 1,480 MSL (847 AGL). We were inside the FAF, descending to 1,500 on the autopilot at 1,000 FPM. At 1,500 MSL or just prior we heard "Caution Obstacle". I immediately began the missed as ATC called with a low altitude alert. After the missed we checked our setup and the vertical profile we had flown and found everything to be correct as far as we could tell. We did not use the advisory glideslope, opting instead to descend to MDA after the FAF. There are a few obstacles noted on the approach plate, however we didn't expect a warning from them. We circled around for the ILS 6 and landed uneventfully.

Synopsis

Turboprop pilot reported an unexpected terrain warning on approach to BHM just prior to the MDA.

Time / Day

Date : 201803

Local Time Of Day : 0601-1200

Place

Locale Reference.ATC Facility : ZZZ.ARTCC

State Reference : US

Altitude.MSL.Single Value : 37000

Environment

Flight Conditions : IMC

Weather Elements / Visibility : Turbulence

Light : Night

Aircraft

Reference : X

ATC / Advisory.Center : ZZZ

Aircraft Operator : Air Carrier

Make Model Name : B767-300 and 300 ER

Crew Size.Number Of Crew : 2

Operating Under FAR Part : Part 121

Flight Plan : IFR

Flight Phase : Cruise

Airspace.Class A : ZZZ

Component : 1

Aircraft Component : Air Data Computer

Aircraft Reference : X

Problem : Malfunctioning

Component : 2

Aircraft Component : Pressurization 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 : Pilot Flying

Function.Flight Crew : Captain

Qualification.Flight Crew : Air Transport Pilot (ATP)

ASRS Report Number.Accession Number : 1525182

Human Factors : Situational Awareness

Events

Anomaly.Aircraft Equipment Problem : Less Severe
Anomaly.Flight Deck / Cabin / Aircraft Event : Other / Unknown
Anomaly.Inflight Event / Encounter : Weather / Turbulence
Detector.Person : Flight Crew
When Detected : In-flight
Result.General : Maintenance Action
Result.Flight Crew : Diverted
Result.Flight Crew : Landed As Precaution
Result.Flight Crew : Requested ATC Assistance / Clarification
Result.Air Traffic Control : Issued New Clearance

Assessments

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

Narrative: 1

Departed and climbed to our cruise altitude of FL350. In IMC with increasing bumps, we elected to climb to FL370, almost on top. Convective activity was well below and off our route. No indication of icing or precipitation. After several minutes at FL370, my airspeed began a sudden, rapid drop all the way to zero indicated. Simultaneously, my altimeter showed severe, rapid altitude loss down from FL370 to FL250. We immediately judged that my instruments were incorrect as the standby and First Officer's instruments showed level at FL370 and steady at Mach 0.78 as before. As pilot flying, with my instruments fluctuating wildly, I elected to transfer controls to the First Officer, and then ran immediate action items for Unreliable Airspeed. After the immediate action items and working through the Unreliable Airspeed QRH, we confirmed the Captain's side data was erroneous and selected Alternate Air Data. My indications returned to normal, but with autothrottles off and my Flight Director off, per the QRH, I designated the First Officer as pilot flying for the remainder of the flight. We soon received Rudder Ratio and Aileron Lockout EICAS messages and complied with the QRH. These are associated messages that confirmed Unreliable Airspeed, as per the QRH. We also received a Ground Proximity System EICAS, even after selecting Ground Proximity Flap override, as previously directed.

At this point, the flight briefly returned to normal and I began entering write-ups in the aircraft logbook. Soon after, our jump seater noticed the cabin altitude gauge and brought it to our attention. Although we had no warnings indicated, the cabin altitude was slowly climbing above 8,500 feet with the outflow valve fully closed. We descended to FL350 and then FL300 and advised ATC of the possibility of an emergency descent. As a precaution, we briefed the Rapid Decompression checklist and agreed to divert to [a nearby alternate], if an emergency descent was needed, as it was closest. Once level at FL300, the cabin altitude reached 9,000 feet and stabilized. We remained at FL300 until given a normal descent and landed flaps 20 as directed by the QRH.

At night, in IMC, at high altitude is about the worst possible time to experience Unreliable Airspeed (at least we weren't ETOPS). Luckily, I had fantastic support from my First Officer and the deadheading Captain. The First Officer immediately took the controls when directed and kept us stable, despite having to briefly hand-fly at FL370 in IMC and turbulence, a much safer option than me flying with confusing, rapidly-changing indications while we ran checklists. The deadheading Captain's sharp eye gave us a heads-up on a pressurization problem that otherwise would've caught us completely by surprise. Had we stayed at FL370, I'm confident we would have eventually received a Cabin Altitude

warning, requiring an emergency descent and diversion. Fantastic coordination and support from the entire crew. When time permitted, I sent an ACARS message to Dispatch advising of our situation. I received no response whatsoever, despite still being at least an hour from landing. At least I can rely on my crew.

Synopsis

Boeing 767-300ER Captain reported diverting to an alternate airport after experiencing air data computer and pressurization system anomalies.

Time / Day

Date : 201803

Local Time Of Day : 1801-2400

Place

Locale Reference.ATC Facility : ZZZ.ARTCC

State Reference : US

Altitude.MSL.Single Value : 24000

Environment

Weather Elements / Visibility : Turbulence

Light : Daylight

Aircraft

Reference : X

ATC / Advisory.Center : ZZZ

Aircraft Operator : Corporate

Make Model Name : Gulfstream IV / G350 / G450

Crew Size.Number Of Crew : 2

Operating Under FAR Part : Part 91

Flight Plan : IFR

Mission : Passenger

Flight Phase : Descent

Airspace.Class A : ZZZ

Person

Reference : 1

Location Of Person.Aircraft : X

Location In Aircraft : Flight Deck

Reporter Organization : Corporate

Function.Flight Crew : Captain

Function.Flight Crew : Pilot Flying

Qualification.Flight Crew : Air Transport Pilot (ATP)

ASRS Report Number.Accession Number : 1525083

Events

Anomaly.Deviation - Altitude : Excursion From Assigned Altitude

Anomaly.Deviation - Speed : All Types

Anomaly.Inflight Event / Encounter : Weather / Turbulence

Anomaly.Inflight Event / Encounter : Loss Of Aircraft Control

Detector.Person : Flight Crew

When Detected : In-flight

Result.Flight Crew : Regained Aircraft Control

Assessments

Contributing Factors / Situations : Weather

Primary Problem : Weather

Narrative: 1

During our initial descent to [the airport] on the arrival we encountered severe, borderline extreme turbulence. During our descent from FL240 we encountered light to moderate turbulence. We illuminated the seat belt sign. Shortly thereafter the turbulence went from moderate to severe. The auto pilot, auto throttles, yaw dampener and pitch trim all disconnected. I was unable to maintain altitude, airspeed or directional control. We heard an airliner in our area experiencing the same turbulence and they [had advised ATC]. The airspeed quickly approached the barber pole, throttles were at idle. I instructed [the first officer] to extend the speed brakes fully as I was not able to take my hand off the yoke to manipulate the speed brakes myself. As the turbulence continued and became borderline extreme, I instructed [the first officer] to [identify ourselves as an emergency aircraft] as I was not certain what altitude we would end up at. At approx. FL210-FL200 we regained control of the aircraft and continued our descent to FL170 as an emergency aircraft. At FL170 we regained full control of the aircraft and were able to re-engage the auto pilot and auto throttles. At this point we advised ATC we would need no further assistance. There was no apparent damage in the cabin, although the Cabin Host went airborne 3 times before managing to strap herself in on the [crew seat]. She struck the ceiling at least once and mentioned some minor discomfort after landing. We had one passenger traveling with a support animal (10 lb Cat). The passenger had been instructed on boarding that the cat would have to be kept in its pet carrier and the carrier to be at all times secured with a seat belt. The cat was out of the carrier laying on the seat besides the passenger and went airborne. The cat did not seem to suffer any injuries. On landing I called Maintenance control and advised them of what had happened. I was told to write it up and submit it to Maintenance Control so they could schedule a structural inspection of the aircraft.

Synopsis

Gulfstream Captain reported moderate to extreme turbulence while descending with a momentary loss of control.

Time / Day

Date : 201802

Local Time Of Day : 1201-1800

Place

Locale Reference.Airport : ZZZ.Airport

State Reference : US

Altitude.AGL.Single Value : 0

Environment

Flight Conditions : IMC

Weather Elements / Visibility : Icing

Weather Elements / Visibility : Snow

Light : Night

Aircraft

Reference : X

ATC / Advisory.Tower : ZZZ

Aircraft Operator : Air Carrier

Make Model Name : Regional Jet 900 (CRJ900)

Crew Size.Number Of Crew : 2

Operating Under FAR Part : Part 121

Flight Plan : IFR

Flight Phase : Takeoff

Person

Reference : 1

Location Of Person.Aircraft : X

Location In Aircraft : Flight Deck

Reporter Organization : Air Carrier

Function.Flight Crew : Captain

Function.Flight Crew : Pilot Not Flying

Qualification.Flight Crew : Air Transport Pilot (ATP)

ASRS Report Number.Accession Number : 1524961

Events

Anomaly.Ground Event / Encounter : Loss Of Aircraft Control

Anomaly.Inflight Event / Encounter : Weather / Turbulence

Detector.Person : Flight Crew

When Detected : In-flight

Result.General : Flight Cancelled / Delayed

Result.Flight Crew : Regained Aircraft Control

Result.Flight Crew : Rejected Takeoff

Result.Flight Crew : Returned To Gate

Assessments

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

Narrative: 1

After multiple runway changes due snow removal and approaching the deicing holdover time limit we lined up on [the runway] and began a FULL-STANDING takeoff as required by the performance solution. On initial application of power the aircraft broke away and began to accelerate despite full wheel brake application. I immediately retarded the thrust levers and called 'My aircraft, stopping' and 'notify ATC'. We rolled for approximately 1,000 feet experiencing nil braking effects, stopped on the runway briefly to consult the QRH Rejected Takeoff checklist, and then cleared the runway which was closed behind us due to our report of 'Braking Action Nil.' Coincident with our turn off we received an ACARS message from dispatch requesting we return to the gate as we were approaching the DOT 3 hour limits.

Synopsis

CRJ-900 Captain reported returning to the gate after rejecting the takeoff because of nil braking conditions on the takeoff runway.

Time / Day

Date : 201803

Local Time Of Day : 0001-0600

Place

Locale Reference.ATC Facility : ZZZZ.ARTCC

State Reference : FO

Aircraft

Reference : X

ATC / Advisory.Center : ZZZZ

Aircraft Operator : Air Carrier

Make Model Name : Widebody Transport

Crew Size.Number Of Crew : 2

Operating Under FAR Part : Part 121

Flight Plan : IFR

Mission : Passenger

Flight Phase : Cruise

Component

Aircraft Component : AC Generator/Alternator

Aircraft Reference : X

Problem : Failed

Person : 1

Reference : 1

Location Of Person.Aircraft : X

Location In Aircraft : Flight Deck

Reporter Organization : Air Carrier

Function.Flight Crew : Captain

Function.Flight Crew : Pilot Not Flying

Qualification.Flight Crew : Multiengine

Qualification.Flight Crew : Air Transport Pilot (ATP)

Qualification.Flight Crew : Instrument

ASRS Report Number.Accession Number : 1524603

Human Factors : Communication Breakdown

Communication Breakdown.Party1 : Flight Crew

Communication Breakdown.Party2 : Other

Communication Breakdown.Party2 : ATC

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 : Instrument

Qualification.Flight Crew : Multiengine

Qualification.Flight Crew : Air Transport Pilot (ATP)
ASRS Report Number.Accession Number : 1524931
Human Factors : Communication Breakdown
Communication Breakdown.Party1 : Flight Crew
Communication Breakdown.Party2 : ATC
Communication Breakdown.Party2 : Other

Events

Anomaly.Aircraft Equipment Problem : Less Severe
Anomaly.Deviation - Procedural : Published Material / Policy
Anomaly.Inflight Event / Encounter : Weather / Turbulence
Anomaly.Inflight Event / Encounter : Fuel Issue
Detector.Person : Flight Crew
When Detected : In-flight
Result.Flight Crew : Overcame Equipment Problem
Result.Air Traffic Control : Provided Assistance
Result.Air Traffic Control : Issued New Clearance

Assessments

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

Narrative: 1

Approximately 45 minutes after departing ZZZ, the R1 GEN failed. The completion of the QRH checklist required the use of the APU for the duration of the flight. After consultation with dispatch and maintenance, we came to the following conclusions. We were planned to arrive with Fuel on Deck (FOD) 15.9 and taking into account an APU burn of 3.3, we predicted a FOD of 12.4. Min planned Reserve and Alternative fuel was 11.6. We communicated with dispatch that we would continue with the flight instead of diverting back to ZZZ, however we would be in close contact and a contingency of reevaluating the fuel with options to make a fuel stop in ZZZZ1 or ZZZZ2 were made.

We operated at recommended altitude and [cruise setting] and were ahead of planned burn, with an arrival fuel of 15.2. As we continued to within 2 hours of arrival, our FMC predicted FOD 14.2. In ZZZZ airspace we were given a R6 offset, which is the management of arrival traffic. In addition we were given an early descent at a high rate requiring speed brakes and a subsequent lower altitude. This had the effect of deteriorating our FOD to 11.8. In addition, the weather was deteriorating to moderate rain, ceiling below 700 feet, and reduced visibility at ZZZZ. In my years of experience flying into ZZZZ, I have observed that these conditions would delay our arrival and the ability to receive a timely clearance to an alternate might be compromised.

In order to communicate in advance with ZZZZ control north of ZZZZZ intersection, I informed them that we were approaching our minimum fuel. They asked twice if we were "emergency fuel" and I clearly stated "negative emergency fuel." It appeared that ZZZZ afforded us expedited arrival, thereby reducing our landing time and increasing our arrival fuel. Our landing fuel was 12.2 and arrival 11.9.

We were detained at the gate and then subsequently in the terminal for by the [Local

Aviation Authorities]. [Two company employees] were on hand attempting to interpret the myriad of questions and requests. Essentially the [Aviation Authorities] wanted information on our generator failure, flight operating manuals, our definition of minimum fuel, and Captain's authority. The [Aviation Authorities] asked the same questions repeatedly and wanted pictures of [our] medical and certificate. I was instructed to give them a written statement, which I complied with in a brief manner. Later they wanted a more detailed explanation and I stated that we were tired and they could receive additional information from our dispatcher and the Chief Pilot on duty. I [was advised to report that the company] would provide the information for the [Aviation Authorities].

Upon arrival at our hotel, the desk manager said that [the local company representative] needed pictures of the certificate and medical of our [relief pilots].

Our flight crew did a great job throughout the flight and ensuing detention at the airport. Communication with the [foreign] ATC is the determining factor and I strongly recommend we establish dialogue with improving the situation with them. We also need to develop a plan to support our flight crews in dealing with this type of situation.

Narrative: 2

[Report narrative contained no additional information.]

Synopsis

Air carrier flight crew reported priority handling for a fuel concern led to questions from the foreign authorities after landing.

Time / Day

Date : 201803

Local Time Of Day : 0601-1200

Place

Locale Reference.Airport : DEN.Airport

State Reference : CO

Altitude.AGL.Single Value : 300

Environment

Flight Conditions : VMC

Weather Elements / Visibility : Windshear

Aircraft

Reference : X

ATC / Advisory.Tower : DEN

Aircraft Operator : Air Carrier

Make Model Name : B737-800

Crew Size.Number Of Crew : 2

Mission : Passenger

Flight Phase : Final Approach

Airspace.Class B : DEN

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 : 1524509

Human Factors : Fatigue

Events

Anomaly.Deviation - Procedural : Published Material / Policy

Anomaly.Inflight Event / Encounter : Weather / Turbulence

Anomaly.Inflight Event / Encounter : Unstabilized Approach

Detector.Automation : Aircraft Other Automation

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 : Weather

Primary Problem : Weather

Narrative: 1

Nearing the end of an [all-night flight to] DEN. Flew squarely through Window of Circadian Low (WOCL) and was feeling fairly fatigued. I First Officer (FO) was flying a ILS/visual approach to 16R. No reports of windshear from ATIS or Approach Control. 1,000 feet AGL the aircraft in front of us reported a 15 knot gain and 20 knot loss. CRM'ed possibly going around but elected to continue approach with a 20 knot target add. At 300 feet AGL experienced a wind shear loss far in excess of 20 knots. Initiated go-around. During go-around Predictive Wind shear System (PWS) announced "Windshear, Windshear" Followed SOP, added max power until verifying we were out of windshear.

Remainder of go-around and vectors were uneventful. Requested 17R as there was no reported windshear to that runway. At 1,500 feet AGL the aircraft in front of us reported windshear and a loss of 15 knots. We decided that it would be more appropriate for the Captain to finish the approach. Transferred aircraft control in compliance with SOP. Elected a 20 knot target once again. At 300 feet AGL we got a windshear gain and Flaps blew up to 25. GPWS momentarily announce "Too Low, Terrain" before immediately quieting as we got another immediate 15-20 kt loss and the flaps moved back to 30. This happened very quickly before go-around could even be considered/announced. The approach immediately re-stabilized and the Captain accomplished a safe landing, on speed, in the touch down zone.

Synopsis

B737NG First Officer reported encountering windshear on two separate approaches into DEN, executing a go-around after the first encounter, but landing after the second, even though they received a terrain alert.

Time / Day

Date : 201803

Local Time Of Day : 0601-1200

Place

Locale Reference.Airport : ZZZ.Airport

State Reference : US

Altitude.AGL.Single Value : 0

Environment

Flight Conditions : IMC

Weather Elements / Visibility.Visibility : 0.5

Ceiling.Single Value : 200

Aircraft

Reference : X

Aircraft Operator : Air Carrier

Make Model Name : B737-700

Crew Size.Number Of Crew : 2

Operating Under FAR Part : Part 121

Flight Plan : IFR

Mission : Passenger

Flight Phase : Taxi

Component

Aircraft Component : Flap Control (Trailing & Leading Edge)

Aircraft Reference : X

Problem : Improperly Operated

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 : 1524477

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 Not Flying

Qualification.Flight Crew : Air Transport Pilot (ATP)

ASRS Report Number.Accession Number : 1524803
Human Factors : Situational Awareness

Events

Anomaly.Aircraft Equipment Problem : Less Severe
Anomaly.Deviation - Procedural : Published Material / Policy
Anomaly.Inflight Event / Encounter : Weather / Turbulence
Anomaly.Inflight Event / Encounter : Fuel Issue
Detector.Person : Flight Crew
When Detected : Routine Inspection
Result.Flight Crew : Overcame Equipment Problem
Result.Aircraft : Aircraft Damaged

Assessments

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

Narrative: 1

We Landed at minimums in a snow storm. ATIS reported a 5-wet runway and upon landing it was covered in snow/slush. I must say I have never landed in this much snow/slush before. We only saw the white edge and center-line lights. A later ATIS while preparing for departure reported 80 percent was one inch of clutter. If asked on a test I would tell you that I should not retract the flaps to less than 15. But my poor excuse is that the stress of the situation and performing the After Landing Flow out of rote was my downfall.

We cautiously taxied in. Having already not thought about ice, we did not go check for ice below the wing or in the flap tracks. We knew we would be deicing before takeoff. There was heavy snow rapidly changing ATIS, and runway closures with ILS equipment out. Numerous aircraft after us diverted due to visibility and runway closure changes. After a ground stop, we loaded up and taxied for deicing.

There was slush on the taxi out and we taxied slowly so as not to kick it up. We deiced and anti-iced with Type IV fluid. Then we taxied the length of the runway on a slush covered taxiway again at about 12 miles per hour because the deice pad was at the opposite end of the departure runway. Looking back, I realize that if I had thought to taxi slowly, I should have thought about inspecting the flaps.

The flight was uneventful. We landed, turned the aircraft, and flew to [next destination.] Upon pushback, we saw puddles with a little ice under the wheel wells. I presumed a small amount had stuck to the gear during the taxi out and had just now fallen off. The flight was uneventful, except that we noticed that we were tight on fuel. We were supposed to land with 5.2 and landed with 4.0.

I turned the aircraft over to another Crew. On their walkaround they discovered ice in the wheel wells and in the flap bays. He reported it to Maintenance and wrote it up. He called me and told me of the situation. He reported to me that the flaps were not fully retracted although there was no indication of this on the flight deck. This explained the fuel over-burn. So I called the Chief Pilot on Call via Dispatch and reported the damage that I had caused.

Narrative: 2

[Report narrative contained no additional information.]

Synopsis

B737 flight crew reported that due to runway clutter, ice accumulated in the flap and wheel well area preventing the flaps from completely retracting.

Time / Day

Date : 201803

Local Time Of Day : 0601-1200

Place

Locale Reference.Airport : OAK.Airport

State Reference : CA

Altitude.MSL.Single Value : 2300

Environment

Flight Conditions : IMC

Weather Elements / Visibility.Visibility : 7

Light : Daylight

Ceiling.Single Value : 1500

Aircraft

Reference : X

ATC / Advisory.TRACON : NCT

Aircraft Operator : Air Carrier

Make Model Name : B737-800

Crew Size.Number Of Crew : 2

Operating Under FAR Part : Part 121

Flight Plan : IFR

Mission : Passenger

Flight Phase : Initial Approach

Airspace.Class C : OAK

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 : 1524470

Human Factors : Distraction

Events

Anomaly.Aircraft Equipment Problem : Less Severe

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 : Weather / Turbulence

Detector.Person : Air Traffic Control

Detector.Person : Flight Crew

When Detected : In-flight

Result.Flight Crew : Returned To Clearance
Result.Air Traffic Control : Issued Advisory / Alert

Assessments

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

Narrative: 1

The airport was turned around to Runway 12. We were the first in line for the changeover. Approach Control gave us short vectors for the ILS 12; however, Approach Control had not completed turning the airport around and the ILS 12 was not turned on yet. We went through the localizer; Approach Control queried us, we told them that the LOC was not on. Approach Control turned on the LOC and vectored us for another short approach.

Just prior to localizer intercept we were hit by lightning and got a little distracted with looking at aircraft systems. We went through the localizer. Approach queried us again and we corrected back to localizer, followed by glideslope intercept for an uneventful landing. Dispatch and Maintenance were notified. An aircraft walkaround revealed a lightning strike on the right winglet top edge. Aircraft was written up and taken out of service for inspection.

Synopsis

B737-800 Captain reported flying through the localizer when they were distracted by a lightning strike.