

ASRS Database Report Set

Pilot / Controller Communications

Report Set Description.....A sampling of reports which highlight issues involving communications between pilots and controllers.

Update Number35

Date of UpdateMarch 30, 2022

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

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



TH: 262-7

MEMORANDUM FOR: Recipients of Aviation Safety Reporting System Data

SUBJECT: Data Derived from ASRS Reports

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

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

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

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

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

A handwritten signature in blue ink, appearing to read "B. Hooey".

Becky L. Hooey, Director
NASA Aviation Safety Reporting System

CAVEAT REGARDING USE OF ASRS DATA

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

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

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

Report Synopses

ACN: 1861273 *(1 of 50)*

Synopsis

Air carrier flight crew reported entering a non-movement area while taxiing at HTS airport, citing poor airport lighting and markings as contributing factors to the incident.

ACN: 1854368 *(2 of 50)*

Synopsis

Corporate jet flight crew reported an NMAC on arrival into CMA after considerable confusion regarding the runway in use.

ACN: 1853898 *(3 of 50)*

Synopsis

Air Carrier pilots reported receiving an RA while descending. The pilot flying started a climb until receiving "clear of conflict." The other aircraft was also an air carrier tracking towards the reporting pilots. There was no alert from ATC according to the reporter.

ACN: 1853630 *(4 of 50)*

Synopsis

Air carrier flight crew reported a ground conflict during taxi in at ORD airport with a Heavy aircraft. Captain stated ATC was extremely busy and that gate related communications issues contributed to the event.

ACN: 1850543 *(5 of 50)*

Synopsis

Air carrier flight crew reported they had to stop taxiing abruptly to avoid a collision with a vehicle that unexpectedly passed in front of the aircraft. The abrupt stop resulted in several flight attendants getting injured when they fell and requiring medical attention.

ACN: 1850183 *(6 of 50)*

Synopsis

B737 MAX flight crew reported that the Runway Approach Alert System volume was so loud that it drowned out the ATC taxi instructions during taxi to the gate.

ACN: 1849204 *(7 of 50)*

Synopsis

Air carrier flight crew reported that while on an RNAV SID to LAS, ATC failed to issue a timely climb to comply with altitude restriction and terrain, resulting in the crew taking evasive action in response to a GPWS caution.

ACN: 1848351 *(8 of 50)*

Synopsis

Air carrier flight crew reported a NMAC while taking off. The crew was cleared for takeoff while another aircraft was cleared to land on an intersecting runway. The tower controller, realizing the mistake, instructed the landing aircraft to go-around. As the landing aircraft commenced go-around the Air Carrier crew reported they flew 300 feet under the go-around aircraft.

ACN: 1847050 *(9 of 50)*

Synopsis

Air carrier flight crew reported after Denver Center issued a clearance to a fix, the flight crew proceeded to a similar sounding fix. ATC informed the flight crew later that they were proceeding to the wrong fix.

ACN: 1847008 *(10 of 50)*

Synopsis

Air carrier flight crew reported descending on a visual approach to PSP Airport before being cleared to do so. Flight crew stated that due to the hazy conditions and angle of the sun they had difficulty visually finding the field. Flight crew added that issues with unclear ATC communications contributed to the event.

ACN: 1846857 *(11 of 50)*

Synopsis

Instructor Pilot and Trainee reported not following the published missed approach procedures on an RNAV approach. The pilots reported after completing a touch and go, they received a terrain warning which resulted in deviation from the procedures.

ACN: 1844305 *(12 of 50)*

Synopsis

Flight crew reported while maneuvering on the runway for takeoff, they observed lights from a landing aircraft. Flight Crew advised they told landing aircraft to go around.

ACN: 1843496 *(13 of 50)*

Synopsis

Pilot and a Flight Instructor reported a NMAC occurred after they incorrectly executed an 'overhead break' clearance issued by ATC. Reporters stated they turned over the approach end of the runway rather than the departure end putting them in proximity to another aircraft on approach.

ACN: 1843408 *(14 of 50)*

Synopsis

Pilots reported a ground conflict with an unknown aircraft while looking for ATC issued traffic.

ACN: 1842291 *(15 of 50)*

Synopsis

Air taxi flight crew reported radio issues in the BFD airport area.

ACN: 1841842 *(16 of 50)*

Synopsis

Falcon 2000 flight crew reported an NMAC event during departure climb. Pilot flying followed the TCAS RA and reported the incident to ATC.

ACN: 1840152 *(17 of 50)*

Synopsis

Flight Instructor and Trainee reported a NMAC while in the traffic pattern. The pilots believed the radio call, from ATC, to begin their base leg was for them. The Instructor and Trainee took evasive action when another aircraft came into view. Later, the pilots realized the transmission was for another aircraft.

ACN: 1839174 *(18 of 50)*

Synopsis

ZMA Center Controller reported repeated radar and communication site outages in the Oceanic Area create unsafe situations. The reporter states there are no backup systems to the main sites.

ACN: 1838687 *(19 of 50)*

Synopsis

Air Carrier flight crew on approach into Morelia, Mexico reported ATC stated there was no VOR 2 Approach to Runway 5 even though the flight crew had the Jeppesen chart for the approach.

ACN: 1838424 *(20 of 50)*

Synopsis

Flight Instructor and student reported the student deviated from assigned altitude resulting in a low altitude alert from ATC, failed to perform the procedure turn on approaches, did not fly the published missed approach procedure and the student would not relinquish aircraft controls to the Instructor.

ACN: 1837293 *(21 of 50)*

Synopsis

Flight crew reported they failed to meet a crossing restriction while descending on a new arrival into TPA after misinterpreting the crossing restrictions and ATC clearance. Issue was further complicated by the use of the same fixes across multiple arrivals.

ACN: 1836808 *(22 of 50)*

Synopsis

Air taxi flight crew reported climbing through their assigned altitude. On read-back to ATC the pilots were not corrected that their stated altitude was incorrect. There was no RA.

ACN: 1826339 *(23 of 50)*

Synopsis

777 Flight Crew reported an NMAC during the departure climb

ACN: 1826224 *(24 of 50)*

Synopsis

TRACON Controller and a pilot reported a NMAC due to the Controller not being aware the Controller they had just relieved had descended another aircraft.

ACN: 1825928 *(25 of 50)*

Synopsis

Air Carrier Flight Crew reported a miscommunication with ATC. A change of STAR and instrument approach resulted in a crew communication error and response to GPWS alert.

ACN: 1824978 *(26 of 50)*

Synopsis

Flight Instructor and Student reported a Near Mid Air Collision and observed the other aircraft pitched up aggressively to avoid collision.

ACN: 1823740 *(27 of 50)*

Synopsis

LAX Tower Local Controller and the Local Assist Controller reported an aircraft which had been instructed to hold short of the runway taxied on to the runway at the same time a departure was beginning their takeoff roll.

ACN: 1822878 *(28 of 50)*

Synopsis

Air carrier flight crew reported a taxiway incursion and ground conflict resulted from receiving ATC taxi instructions during a high workload landing roll and not being able to clarify with Ground Control.

ACN: 1822540 *(29 of 50)*

Synopsis

A flight crew reported they flew into military Restricted Airspace when were assigned a vector off course and issued a frequency change. They could not establish communications on the new frequency in a timely manner due to frequency congestion and saturation on the new frequency.

ACN: 1822494 *(30 of 50)*

Synopsis

B737-800 flight crew reported a CFIT event during approach resulting in a go-around. A communications breakdown between flight crew and ATC was cited as a contributing factor.

ACN: 1819754 *(31 of 50)*

Synopsis

Air taxi First Officer reported being vectored for an approach by TRACON descended below their assigned altitude to avoid VFR traffic which ATC had advised them of but did not issue appropriate instructions to avoid the traffic. ATC advised the pilot they descended below the Minimum Vectoring Altitude.

ACN: 1817781 *(32 of 50)*

Synopsis

Air carrier flight crew reported confusion over their takeoff clearance when the aircraft's RAAS issued an aural warning at the same time the Tower Controller issued the clearance.

ACN: 1813963 *(33 of 50)*

Synopsis

Air carrier flight crew reported departure procedures require clarification by ATC and departure charts regarding direction of turn for southwest departures.

ACN: 1813915 *(34 of 50)*

Synopsis

Air Carrier Pilots reported, after an unstable approach at night to an uncontrolled airport, not executing the published missed approach.

ACN: 1812914 *(35 of 50)*

Synopsis

Air carrier flight crew reported not expediting their taxi out resulting in an aircraft on final being instructed to go-around. The flight crew stated ATC was not using their call sign with the instructions to expedite, which contributed to the event.

ACN: 1812426 *(36 of 50)*

Synopsis

EMB-505 flight crew reported a fume event during initial climb resulted in a diversion.

ACN: 1812051 *(37 of 50)*

Synopsis

Air carrier flight crew reported a CFIT event during approach due to a communication breakdown between ATC and flight crew.

ACN: 1811848 *(38 of 50)*

Synopsis

B737-800 air carrier flight crew reported accepting a reroute clearance on CPDLC that they had initially put on standby.

ACN: 1810906 *(39 of 50)*

Synopsis

Air carrier flight crew reported a taxiway incursion occurred after ATC issued taxi instructions while the aircraft was still decelerating on the landing roll and the crew was unable to hear instructions clearly during that "busy time."

ACN: 1809353 *(40 of 50)*

Synopsis

Pilot reported confusion about whether or not they had clearance into a Class Charlie airspace while under flight following, and a quick termination within 1 mile of the Class Charlie airspace.

ACN: 1807917 *(41 of 50)*

Synopsis

Air carrier flight crew reported runway incursion after landing.

ACN: 1807908 *(42 of 50)*

Synopsis

B737-700 flight crew reported missing an ATC speed assignment on arrival into LAX when they were distracted by a wake turbulence encounter in trail of a heavy B777.

ACN: 1804780 *(43 of 50)*

Synopsis

Flight crew reported a critical ground conflict due to a communications breakdown between Ground Control and flight crew.

ACN: 1804737 *(44 of 50)*

Synopsis

Flight Crew reported both VHF communication systems malfunctioned, and they elected to continue to destination airport.

ACN: 1804662 *(45 of 50)*

Synopsis

Flight crew reported after receiving clearance to line up and wait, they observed another aircraft taxi onto the runway.

ACN: 1803706 *(46 of 50)*

Synopsis

Air carrier flight crew reported a taxiway incursion and cited communication problems with ATC as a contributing factor. Reportedly, the Controller's instructions sounded muffled due to wearing a face mask.

ACN: 1802061 *(47 of 50)*

Synopsis

Flight Crew reported miscommunication led to a departure with a fuel leak that required a diversion and a precautionary emergency landing.

ACN: 1801811 *(48 of 50)*

Synopsis

CE-525 flight crew reported communications failure caused a runway incursion and another aircraft to execute a go around.

ACN: 1799118 *(49 of 50)*

Synopsis

B737-700 flight crew reported a CFIT event during a visual approach due to an ATC communications breakdown between flight crew and Approach Control who was working multiple frequencies with similar callsigns.

ACN: 1798564 *(50 of 50)*

Synopsis

Air Carrier Pilot Crew reported a critical ground conflict during taxi.

Report Narratives

Time / Day

Date : 202112

Local Time Of Day : 0601-1200

Place

Locale Reference.Airport : HTS.Airport

State Reference : WV

Altitude.AGL.Single Value : 0

Environment

Flight Conditions : VMC

Aircraft

Reference : X

ATC / Advisory.Tower : HTS

Aircraft Operator : Air Carrier

Make Model Name : Commercial Fixed Wing

Crew Size.Number Of Crew : 2

Operating Under FAR Part : Part 121

Flight Plan : IFR

Mission : Passenger

Flight Phase : Taxi

Person : 1

Location Of Person.Aircraft : X

Location In Aircraft : Flight Deck

Reporter Organization : Air Carrier

Function.Flight Crew : Pilot Flying

Function.Flight Crew : Captain

Qualification.Flight Crew : Multiengine

Qualification.Flight Crew : Air Transport Pilot (ATP)

Qualification.Flight Crew : Instrument

ASRS Report Number.Accession Number : 1861273

Human Factors : Situational Awareness

Human Factors : Other / Unknown

Human Factors : Communication Breakdown

Human Factors : Confusion

Communication Breakdown.Party1 : Flight Crew

Communication Breakdown.Party2 : ATC

Person : 2

Location Of Person.Aircraft : X

Location In Aircraft : Flight Deck

Reporter Organization : Air Carrier

Function.Flight Crew : First Officer

Function.Flight Crew : Pilot Not Flying

Qualification.Flight Crew : Multiengine

Qualification.Flight Crew : Instrument

Qualification.Flight Crew : Air Transport Pilot (ATP)

ASRS Report Number.Accession Number : 1861270
Human Factors : Other / Unknown
Human Factors : Situational Awareness
Human Factors : Communication Breakdown
Human Factors : Confusion
Communication Breakdown.Party1 : Flight Crew
Communication Breakdown.Party2 : ATC
Analyst Callback : Completed

Events

Anomaly.Deviation / Discrepancy - Procedural : Clearance
Anomaly.Ground Incursion : Taxiway
Detector.Person : Air Traffic Control
When Detected : Taxi
Result.Flight Crew : Became Reoriented
Result.Air Traffic Control : Issued Advisory / Alert

Assessments

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

Narrative: 1

Unfamiliar airport operations, turned out of the gate for deicing crossed the movement area from a non-movement area. Airport has terrible lights, markings, no flood lights operational. There is no way to identify the movement area unless you cross it and get deviated. Charts do not say where the non-movement area [is]. The whole airport is one taxiway, hard to tell if all ramp area is non-movement [We] did not establish two-way communication with Ground Control.

Narrative: 2

Possible pilot deviation for violating a movement area without taxi clearance. [We were] repositioning from hard stand to de-ice pad, and crossed into a movement area without taxi clearance. Suggestions: 1. Make markings more visible. 2. De-ice at gate. 3. Make sure flood lights work. 4. Make a note in company charts and pages of this to make unfamiliar crews aware of potential deviation threat. 1. First time FO (First Officer) has been to airport, unfamiliar with layout. 2. Night time winter operations. 3. Dimly lit hard stand and ramp area, hard to see and navigate. We were advised prior to boarding the airplane by Ground Personnel that ramp flood lights were not working when they usually work. 4. Turn out gate with small ramp; it seems that by the time the Captain had turned the aircraft fully around to reposition to the de-ice pad, we may have already crossed the taxi hold short line. 5. Ramp just transitions to taxiway with no other distinguishing signs, lights, barriers, markings other than the movement/non movement line that we noticed after crossing it already. 6. After clearing the area to the right of the aircraft, FO was heads-down configuring aircraft for de-ice, reducing situational awareness.

Callback: 2

Reporter stated incident location was HTS airport.

Synopsis

Air carrier flight crew reported entering a non-movement area while taxiing at HTS airport, citing poor airport lighting and markings as contributing factors to the incident.

Time / Day

Date : 202111

Local Time Of Day : 1801-2400

Place

Locale Reference.Airport : CMA.Airport

State Reference : CA

Altitude.MSL.Single Value : 4000

Environment

Flight Conditions : VMC

Aircraft : 1

Reference : X

ATC / Advisory.TRACON : NTD

Aircraft Operator : Fractional

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

Crew Size.Number Of Crew : 2

Operating Under FAR Part : Part 135

Flight Plan : IFR

Flight Phase : Initial Approach

Airspace.Class E : NDT

Aircraft : 2

Reference : Y

Make Model Name : Any Unknown or Unlisted Aircraft Manufacturer

Airspace.Class E : NDT

Person : 1

Location Of Person.Aircraft : X

Location In Aircraft : Flight Deck

Reporter Organization : Fractional

Function.Flight Crew : First Officer

Function.Flight Crew : Pilot Not Flying

Qualification.Flight Crew : Air Transport Pilot (ATP)

ASRS Report Number.Accession Number : 1854368

Human Factors : Communication Breakdown

Communication Breakdown.Party1 : Flight Crew

Communication Breakdown.Party2 : ATC

Person : 2

Location Of Person.Aircraft : X

Location In Aircraft : Flight Deck

Reporter Organization : Fractional

Function.Flight Crew : Captain

Function.Flight Crew : Pilot Flying

Qualification.Flight Crew : Air Transport Pilot (ATP)

ASRS Report Number.Accession Number : 1854369

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

Events

Anomaly.ATC Issue : All Types
Anomaly.Conflict : NMAC
Detector.Automation : Aircraft RA
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 : Procedure
Primary Problem : Human Factors

Narrative: 1

After misleading instructions by Point Mugu Approach telling us [CMA] was landing 08 instead of our requested RNAV GPS Y 26 approach we had to reprogram for Runway 8, then were transferred to Approach who told us CMA was landing 26. We asked for vectors to program again the box to RNAV Y 26. ATC vectored us to join RNAV Y 26 approach and we had an RA. We were ready because we had them on TCAS. Captain who was flying followed the RA instruction and we came within 200 ft. of traffic. We asked for vectors to re-intercept the course for the approach and proceeded to land safely. ATC (Point Mugu) were under the false impression that CMA was landing 08 when the actually were landing 26, this created unnecessary stress and reprogramming of FMS and way more complicated vectoring than necessary. Then second approach ATC vectors us too close to traffic they did not speak to, that too was unnecessary and unsafe. ATC Approach personnel should better communicate between locations and double check their facts and serve pilot and passengers instead of shooing them along without understanding the time it takes to reprogram and brief last minute changes.

Narrative: 2

On the descent very close to CMA as we were talking to approach frequency setting up for the approach when we got an RA to climb. We were being vectored around at 4000 ft. when the RA occurred. It instructed to me to climb so I climbed to 4,600 ft. to clear the conflict. We reported the RA to approach. We then set up for the RNAV Runway 26, shot the approach and landed. ATC was the cause! We got the ATIS for CMA and they were landing Runway 26. We set up for Runway 26. Then we got handed over to Point Mugu Approach who emphatically told us that CMA was landing Runway 8. We asked him if we could land 26. He recommended that we set up for Runway 8. So we did. Then he handed us over to either Socal or the Tower (I can't remember). They put us on a heading and then said we were cleared for the RNAV Runway 26. We told them that we were set up for Runway 8 because of what the last Controller had told us. The new Controller asked us what we wanted to do. He asked if we wanted vectors to get reset up for the RNAV Runway 26 and we agreed. So while he was vectoring us we got the RA. Had the Controller at Pt Mugu not given us erroneous information, I don't believe this would have happened.

Synopsis

Corporate jet flight crew reported an NMAC on arrival into CMA after considerable confusion regarding the runway in use.

Time / Day

Date : 202111

Local Time Of Day : 1201-1800

Place

Locale Reference.ATC Facility : ZZZ.ARTCC

State Reference : US

Altitude.MSL.Single Value : 25000

Aircraft : 1

Reference : X

ATC / Advisory.Center : ZZZ

Aircraft Operator : Air Carrier

Make Model Name : Commercial Fixed Wing

Crew Size.Number Of Crew : 2

Operating Under FAR Part : Part 121

Flight Plan : IFR

Mission : Passenger

Nav In Use : FMS Or FMC

Nav In Use : GPS

Flight Phase : Descent

Route In Use : Direct

Airspace.Class A : ZZZ

Aircraft : 2

Reference : Y

ATC / Advisory.Center : ZZZ

Aircraft Operator : Air Carrier

Make Model Name : Commercial Fixed Wing

Crew Size.Number Of Crew : 2

Operating Under FAR Part : Part 121

Flight Plan : IFR

Mission : Cargo / Freight / Delivery

Nav In Use : FMS Or FMC

Nav In Use : GPS

Route In Use : Direct

Airspace.Class A : ZZZ

Person : 1

Location Of Person.Aircraft : X

Location In Aircraft : Flight Deck

Reporter Organization : Air Carrier

Function.Flight Crew : Pilot Not Flying

Function.Flight Crew : Captain

Qualification.Flight Crew : Air Transport Pilot (ATP)

Qualification.Flight Crew : Instrument

Qualification.Flight Crew : Multiengine

ASRS Report Number.Accession Number : 1853898

Human Factors : Distraction

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

Person : 2

Location Of Person.Aircraft : X
Location In Aircraft : Flight Deck
Reporter Organization : Air Carrier
Function.Flight Crew : First Officer
Function.Flight Crew : Pilot Flying
Qualification.Flight Crew : Instrument
Qualification.Flight Crew : Multiengine
Qualification.Flight Crew : Air Transport Pilot (ATP)
ASRS Report Number.Accession Number : 1853660
Human Factors : Distraction
Human Factors : Situational Awareness
Human Factors : Time Pressure
Human Factors : Workload
Human Factors : Communication Breakdown
Communication Breakdown.Party1 : Flight Crew
Communication Breakdown.Party2 : ATC

Events

Anomaly.ATC Issue : All Types
Anomaly.Conflict : NMAC
Anomaly.Deviation - Altitude : Excursion From Assigned Altitude
Detector.Automation : Aircraft RA
Detector.Person : Flight Crew
When Detected : In-flight
Result.Flight Crew : Took Evasive Action
Result.Flight Crew : FLC complied w / Automation / Advisory

Assessments

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

Narrative: 1

It was the First Officer's leg from ZZZ1 to ZZZ. We were flying Flight ABCA. We were flying Aircraft X. On descent into ZZZ, we were cleared to descend via a STAR arrival. We were then given a level off altitude of FL250. We received a TCAS alert from traffic at our 10 O'clock position..."Traffic Traffic"...then a few seconds later we received a RA to "Climb Climb". I notified ATC that we received a RA and that we were climbing. The First Officer immediately disconnected the autopilot and auto throttles and executed a climb. At FL255 the TCAS system said, "Clear of Conflict". We returned to FL 250. ATC then re-cleared us to descend via the STAR arrival again. We landed on Runway XXR (previously XYR) and

taxied into our Gate X at ZZZ. ATC climbed an aircraft within approximately 500 feet of us, we received an RA and reacted to it. Better situational awareness by the ATC controller.

Narrative: 2

While flying the STAR RNAV arrival into ZZZ, we were given a number of step-down descents that kept us above our programmed VNAV descent path. Approaching ZZZZZ at the 12 o'clock position was an aircraft flying at us and climbing toward our altitude. We were at FL250 and received a TCAS RA directing a climb to FL255 with which we complied. We notified ATC of our TCAS RA response. After clear of traffic, we descended back to FL250 and resumed the arrival. Immediately after this occurrence, we changed frequencies. Perhaps this traffic conflict was a result of miscommunication between the two controllers. I am surprised that the ATC controllers would not have received an alert about two aircraft on a collision course. We routinely receive many irrelevant traffic alerts, but in this instance, we heard nothing from ATC.

Synopsis

Air Carrier pilots reported receiving an RA while descending. The pilot flying started a climb until receiving "clear of conflict." The other aircraft was also an air carrier tracking towards the reporting pilots. There was no alert from ATC according to the reporter.

Time / Day

Date : 202111

Local Time Of Day : 1801-2400

Place

Locale Reference.Airport : ORD.Airport

State Reference : IL

Altitude.AGL.Single Value : 0

Aircraft : 1

Reference : X

ATC / Advisory.Ground : ORD

Aircraft Operator : Air Carrier

Make Model Name : Commercial Fixed Wing

Crew Size.Number Of Crew : 2

Operating Under FAR Part : Part 121

Flight Plan : IFR

Mission : Passenger

Flight Phase : Taxi

Aircraft : 2

Reference : Y

Make Model Name : Heavy Transport

Flight Phase : Taxi

Person : 1

Location Of Person.Aircraft : X

Location In Aircraft : Flight Deck

Reporter Organization : Air Carrier

Function.Flight Crew : Pilot Flying

Function.Flight Crew : Captain

Qualification.Flight Crew : Air Transport Pilot (ATP)

Qualification.Flight Crew : Instrument

Qualification.Flight Crew : Multiengine

ASRS Report Number.Accession Number : 1853630

Human Factors : Communication Breakdown

Human Factors : Confusion

Human Factors : Situational Awareness

Communication Breakdown.Party1 : Flight Crew

Communication Breakdown.Party2 : ATC

Person : 2

Location Of Person.Aircraft : X

Location In Aircraft : Flight Deck

Reporter Organization : Air Carrier

Function.Flight Crew : Pilot Flying

Function.Flight Crew : First Officer

Qualification.Flight Crew : Air Transport Pilot (ATP)

Qualification.Flight Crew : Instrument

Qualification.Flight Crew : Multiengine
ASRS Report Number.Accession Number : 1853632
Human Factors : Communication Breakdown
Human Factors : Confusion
Human Factors : Situational Awareness
Communication Breakdown.Party1 : Flight Crew
Communication Breakdown.Party2 : ATC

Events

Anomaly.ATC Issue : All Types
Anomaly.Conflict : Ground Conflict, Critical
Detector.Person : Flight Crew
When Detected : Taxi
Result.Flight Crew : Took Evasive Action

Assessments

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

Narrative: 1

While taxiing to gate after landing on [Runway] 27R inbound from ZZZ we were on Taxiway H on the northern side of the field. We notified ATC of our gate multiple times. We were told to make a right turn on Taxiway B and to the gate. This was strange as they normally bring us down Taxiway A to cross the A bridge on the way to the X gates. As I rounded the turn near Taxiway V the FO and I saw a large aircraft coming towards us on B and he was passing the western side of the international terminal. I immediately stopped my aircraft because I was not sure what the oncoming aircraft's instructions were. He continued towards us coming from our left to go on what looked like Taxiway EE. As he taxied by I could tell it was a Heavy Aircraft Y. The Aircraft Y continued taxiing but slowed their speed as they saw us stopped. Both aircraft cleared each other, however, Aircraft Y's wing tip passed directly over my flight deck. ATC was extremely busy that night with a multitude of arrivals and departures. Upon this incident happening I instructed the FO to contact Ground and tell them about it. The Ground Controller told us he believed we were going the gate Y not X even though we told them our gate multiple times to multiple controllers that night. I think it would help immensely if ORD had a ground frequency for inbound aircraft and a different one for outbound aircraft. Assigning standard taxi routes will help reduce radio chatter as well. For example DFW utilizes standard inbound and outbound taxi routes.

Narrative: 2

Upon arrival in ORD, notified ground of our gate on 121.9. Told "right turn Bravo" from crossing 4L on Hotel. Upon reaching the area of A18/V1 on Bravo, I noticed a dark shadow coming down Bravo taxiing opposite direction per normal. I noticed the green light was on the left with taxi light on towards us. I brought this to the Captain's attention who immediately stopped the aircraft. At this position, and prior while moving, Aircraft Y was to our left, and we were to their right. We attempted to contact ground 2-3 times before getting their attention on the radio. By said time, the Aircraft Y had passed, with their wingtip passing directly over our nose cone, height cleared our aircraft. Ground stated they thought our gate was Y and would have turned before, to which I stated for the third time the gate was X. They apologized and we continued via Bravo to gate after the Aircraft

Y was well past. The cause is DIRECTLY links to two factors: 1- ATC listed our gate in their system as Y, but never gives entry instructions (ever) to ramp. The taxi instructions ended with "Bravo" and we are expected to make a turn into the gate from Bravo. 2- The use of inbound/outbound (121.9/121.75) frequencies instead of east/west or north/south like every other airport with multiple ground frequencies means that aircraft will be passing, cutting in front of, etc. without every hearing what the other aircraft is doing. This adds major confusion daily. ATC should give terminal directions to the ramp. For example, "Taxi via bravo, use A15 to ramp." This would have triggered us to say "we are going to the Lima gates, not Y gates." Change ground frequencies so that everyone on ground near each other are on the same frequencies. Divide the airport into east/west north/south, not inbound/outbound.

Synopsis

Air carrier flight crew reported a ground conflict during taxi in at ORD airport with a Heavy aircraft. Captain stated ATC was extremely busy and that gate related communications issues contributed to the event.

Time / Day

Date : 202110

Local Time Of Day : 1801-2400

Place

Locale Reference.Airport : ZZZ.Airport

State Reference : US

Altitude.AGL.Single Value : 0

Aircraft

Reference : X

ATC / Advisory.Ground : ZZZ

Aircraft Operator : Air Carrier

Make Model Name : A321

Crew Size.Number Of Crew : 2

Operating Under FAR Part : Part 121

Flight Plan : IFR

Mission : Passenger

Flight Phase : Taxi

Person : 1

Location Of Person.Aircraft : X

Location In Aircraft : Flight Deck

Reporter Organization : Air Carrier

Function.Flight Crew : Captain

Function.Flight Crew : Pilot Flying

Qualification.Flight Crew : Multiengine

Qualification.Flight Crew : Instrument

Qualification.Flight Crew : Air Transport Pilot (ATP)

ASRS Report Number.Accession Number : 1850543

Human Factors : Communication Breakdown

Human Factors : Situational Awareness

Communication Breakdown.Party1 : Flight Crew

Communication Breakdown.Party2 : ATC

Person : 2

Location Of Person.Aircraft : X

Location In Aircraft : Flight Deck

Reporter Organization : Air Carrier

Function.Flight Crew : First Officer

Function.Flight Crew : Pilot Not Flying

Qualification.Flight Crew : Multiengine

Qualification.Flight Crew : Instrument

Qualification.Flight Crew : Air Transport Pilot (ATP)

ASRS Report Number.Accession Number : 1850828

Human Factors : Communication Breakdown

Human Factors : Situational Awareness

Communication Breakdown.Party1 : Flight Crew

Communication Breakdown.Party2 : ATC

Events

Anomaly.Flight Deck / Cabin / Aircraft Event : Illness / Injury
Anomaly.Conflict : Ground Conflict, Critical
Anomaly.Deviation / Discrepancy - Procedural : Published Material / Policy
Anomaly.Ground Event / Encounter : Other / Unknown
Detector.Person : Flight Crew
When Detected : Taxi
Result.General : Police / Security Involved
Result.General : Physical Injury / Incapacitation
Result.General : Flight Cancelled / Delayed
Result.Flight Crew : Took Evasive Action

Assessments

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

Narrative: 1

Pushback and engine start was complete, and had received a taxi clearance from ZZZ ground control. I released the parking brake, turned on the TAXI light and started moving forward at approximately walking pace. There was some confusion about the taxi clearance so the First Officer (FO) and I worked to clarify our taxi clearance. During that time I stopped the aircraft briefly, and attempted to get clarification on a busy radio frequency. After some clarification I began to roll forward and begin my taxi toward the runway. As I approached the vehicle lane that crosses the top of the alleyway I saw a white vendor car passing right to left. I reacted and applied the brakes when the vehicle was approximately mid left wing. I stopped the aircraft to avoid a collision. I had to lean forward into the glareshield to see the driver and vehicle pass in front. I would estimate it at less than 20 feet. Shortly after I stopped the aircraft a fuel truck passed right to left. Upon stopping the aircraft I contacted the 1st Flight Attendant (FA) to check on their status. 2 FAs had been standing during the event. She was injured, shook up and another flight attendant who was standing in the forward galley was hurt with bumps and bruises to her torso. I coordinated a return to gate and requested paramedics to meet the aircraft to attend to the FAs. Ground control and company operations were both informed of the vehicle incursion at the time of the event. Multiple ZZZ [authorities] interviewed the flight deck and flight attendants for their report. Ultimately the entire crew was replaced and went to the hotel. A replacement crew arrived and the flight departed approximately 2 1/2 hours later. Dark operations, very active airport with ground vehicles, inattentive vehicle drivers. Our taxi clearance was confusing so my taxi may have appeared to be unpredictable. My taxi and beacon lights were on throughout the event and that should have given any road traffic an indication I may move at any time. Prior to departing gate area both pilots checked the immediate areas left and right and stated "clear left, clear right" before aircraft moved. As we worked out the taxi clearance, I slowed and then stopped the aircraft. It is possible that prior to moving again I did not verify with the FO that the right side was clear. He may have been heads down looking at the taxi chart. I know that I cleared the left side and as much of the right side as possible. The vehicle actually slowed to a stop at the appropriate hold line while I was moving. The vehicle for unknown reasons then started moving into our path. [Suggest] Elimination of all road traffic from aircraft movement areas. Obviously that's not possible. Better vigilance on the flight deck clearing the area and recognizing vehicle crossings as a potential hotspot for collision. I should have not taxied the aircraft until the FO was completely engaged with

clearing the area in front and to the sides of the aircraft prior to movement to provide more warning for ground traffic failing to yield.

Narrative: 2

We had both engines started, after start flows complete, after start checklist complete, flaps were set and after taxiing a few feet to the top of the alley we were holding short of the service road when we contacted metering for taxi sequencing abeam Gate X. Metering told us to monitor ground. Ground control gave us a confusing clearance to Runway XXL. Since both of us were confused we took time to check our charts and discuss a plan. After thoroughly discussing the route and our options we decided to contact ground again to get clarification. Ground control was typically busy so we had to wait to get a word in so we were sitting there not moving for probably a couple of minutes. At no time did we signal or wave any service road traffic to pass in front of us. We both felt comfortable taxiing out of the alley as we were going to clarify our clearance before proceeding on [taxiway] 1. As we started to slowly roll forward a vehicle moving right to left on the service road did not yield to us. The beacon and taxi light were on. The Captain was vigilant and quickly applied the brakes to stop the aircraft as it became evident the traffic was not going to stop (we weighed about 175,000 lbs). I don't think we could have been moving at more than a few mph. Our abrupt stop assured clearance from the first vehicle and a subsequent fuel truck that also passed in front of us. The quick stop caused two flight attendants to lose their balance and stumble/fall during their demo. After communicating with the FA's, ground, metering, ops and hearing of a possible injury we return to gate X. FAs were evaluated by paramedics, they were all taken off the trip and went to the hotel. It would be speculation to suggest what might have caused the driver of the vehicle to not yield to us. We were stopped as we clarified our clearance but the beacon and taxi light were on as we moved. It was night and the ramp was typically busy. Perhaps the driver did not expect us to taxi as we had been sitting at the top of the alley for some time. Continue education for all SIDA badged employees on the importance of giving way to aircraft. Including that causing an aircraft to stop abruptly can cause injuries if flight attendants are up in the cabin. Also, when an aircraft taxi light is on be aware the aircraft may taxi at any moment, even if it has been sitting for some time. Crews should assure the taxi light is on anytime they are going to move. Vigilant monitoring of ramp and airport traffic by the flight crew is key to safety while taxiing, especially at night and in congested areas. Making a slow roll before adding much power to taxi in congested areas will also help add a barrier to potential ground conflicts. A slow roll and taxi light on should give airport traffic a clear sign that the aircraft is beginning a taxi.

Synopsis

Air carrier flight crew reported they had to stop taxiing abruptly to avoid a collision with a vehicle that unexpectedly passed in front of the aircraft. The abrupt stop resulted in several flight attendants getting injured when they fell and requiring medical attention.

Time / Day

Date : 202110

Local Time Of Day : 1201-1800

Place

Locale Reference.Airport : ZZZ.Airport

State Reference : US

Altitude.AGL.Single Value : 0

Environment

Flight Conditions : Mixed

Weather Elements / Visibility : Rain

Light : Daylight

Aircraft

Reference : X

ATC / Advisory.Tower : ZZZ

Aircraft Operator : Air Carrier

Make Model Name : B737 MAX Series Undifferentiated

Crew Size.Number Of Crew : 2

Operating Under FAR Part : Part 121

Flight Plan : IFR

Mission : Passenger

Flight Phase : Taxi

Airspace.Class B : ZZZ

Component : 1

Aircraft Component : Air/Ground Communication

Aircraft Reference : X

Problem : Malfunctioning

Component : 2

Aircraft Component : Indicating and Warning - Flight & Navigation Systems

Aircraft Reference : X

Problem : Design

Person : 1

Location Of Person.Aircraft : X

Location In Aircraft : Flight Deck

Reporter Organization : Air Carrier

Function.Flight Crew : Pilot Flying

Function.Flight Crew : Captain

Qualification.Flight Crew : Air Transport Pilot (ATP)

Qualification.Flight Crew : Instrument

Qualification.Flight Crew : Multiengine

Experience.Flight Crew.Total : 5946

Experience.Flight Crew.Last 90 Days : 203

Experience.Flight Crew.Type : 5946

ASRS Report Number.Accession Number : 1850183
Human Factors : Distraction
Human Factors : Communication Breakdown
Communication Breakdown.Party1 : Flight Crew
Communication Breakdown.Party2 : ATC

Person : 2

Location Of Person.Aircraft : X
Location In Aircraft : Flight Deck
Reporter Organization : Air Carrier
Function.Flight Crew : First Officer
Function.Flight Crew : Pilot Not Flying
Qualification.Flight Crew : Instrument
Qualification.Flight Crew : Multiengine
Qualification.Flight Crew : Air Transport Pilot (ATP)
Experience.Flight Crew.Total : 874
Experience.Flight Crew.Last 90 Days : 169
Experience.Flight Crew.Type : 874
ASRS Report Number.Accession Number : 1850494
Human Factors : Situational Awareness
Human Factors : Communication Breakdown
Communication Breakdown.Party1 : Flight Crew
Communication Breakdown.Party2 : ATC

Events

Anomaly.Aircraft Equipment Problem : Less Severe
Anomaly.ATC Issue : All Types
Anomaly.Deviation / Discrepancy - Procedural : Published Material / Policy
Detector.Automation : Aircraft Other Automation
Detector.Person : Flight Crew
Detector.Person : Air Traffic Control
Were Passengers Involved In Event : N
When Detected : Taxi
Result.General : None Reported / Taken

Assessments

Contributing Factors / Situations : Aircraft
Primary Problem : Aircraft

Narrative: 1

After landing in ZZZ on XXR in a MAX, we made an approved turn-off onto Runway XYR to expedite our exit. It was at that time that the Runway Alert system began to make call outs about "approaching XYR, runway remaining, and approaching XXL". The volume of those calls were so loud, that we missed an ATC call to expedite across XXL. Because we were unsure of the call, we obviously did not move until clarification was made. No violation occurred, but ATC was obviously irate during at our missed response, which could have caused a runway incursion or go around from an aircraft landing behind us. The system has caused more missed ATC calls in my experience, and is a degradation to safety despite its reason for being installed.

Narrative: 2

We turned onto Runway XXR after landing on Runway XZR. While making the turn, the RAAS system announced that we are Runway XXR just as the Tower was giving us additional taxi instructions over the radio. The RAAS system was so loud that I could not understand tower and had to ask them to repeat. Tower repeated the instructions and we continued taxiing without incident. I was wearing a noise canceling head set with the volume properly adjusted. I am concerned that the volume of the system could cause problems since it is providing alerts at times that ATC instructions are likely to be made.

Synopsis

B737 MAX flight crew reported that the Runway Approach Alert System volume was so loud that it drowned out the ATC taxi instructions during taxi to the gate.

Time / Day

Date : 202110

Local Time Of Day : 1801-2400

Place

Locale Reference.Airport : LAS.Airport

State Reference : NV

Relative Position.Angle.Radial : 011

Relative Position.Distance.Nautical Miles : 3

Altitude.MSL.Single Value : 6000

Environment

Light : Night

Aircraft

Reference : X

ATC / Advisory.TRACON : L30

Aircraft Operator : Air Carrier

Make Model Name : Commercial Fixed Wing

Crew Size.Number Of Crew : 2

Operating Under FAR Part : Part 121

Flight Plan : IFR

Mission : Passenger

Flight Phase : Climb

Route In Use.SID : RADYR2

Airspace.Class B : LAS

Person : 1

Location Of Person.Aircraft : X

Location In Aircraft : Flight Deck

Reporter Organization : Air Carrier

Function.Flight Crew : Pilot Not Flying

Function.Flight Crew : Captain

Qualification.Flight Crew : Air Transport Pilot (ATP)

Qualification.Flight Crew : Multiengine

Qualification.Flight Crew : Instrument

Experience.Flight Crew.Last 90 Days : 135

Experience.Flight Crew.Type : 13401

ASRS Report Number.Accession Number : 1849204

Human Factors : Communication Breakdown

Communication Breakdown.Party1 : Flight Crew

Communication Breakdown.Party2 : ATC

Person : 2

Location Of Person.Aircraft : X

Location In Aircraft : Flight Deck

Reporter Organization : Air Carrier

Function.Flight Crew : Pilot Flying

Function.Flight Crew : First Officer

Qualification.Flight Crew : Air Transport Pilot (ATP)
Qualification.Flight Crew : Multiengine
Qualification.Flight Crew : Instrument
Experience.Flight Crew.Last 90 Days : 150
Experience.Flight Crew.Type : 2300
ASRS Report Number.Accession Number : 1849211
Human Factors : Communication Breakdown
Communication Breakdown.Party1 : Flight Crew
Communication Breakdown.Party2 : ATC

Events

Anomaly.ATC Issue : All Types
Anomaly.Deviation / Discrepancy - Procedural : Published Material / Policy
Anomaly.Deviation / Discrepancy - Procedural : Clearance
Anomaly.Inflight Event / Encounter : CFTT / CFIT
Detector.Automation : Aircraft TA
Detector.Person : Flight Crew
Result.Flight Crew : Took Evasive Action
Result.Flight Crew : Requested ATC Assistance / Clarification

Assessments

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

Narrative: 1

We departed LAS off of Runway 1R, on the RADYR 2 Departure, except we were told to maintain 6000 ft. All was normal, but ATC did not climb us as expected. Departure frequency was 125.9. As we approached HRRLY, I called ATC and stated we needed to climb. (XA18Z). He gave us a climb to FL 190. As he did so, we got a "Caution, Obstacle." The First Officer was flying and he disconnected the autopilot and autothrottles and added power to climb thrust and adjusted the flight path. Once clear of the obstacle, autopilot and autothrottles were re-engaged. No further incident.

Narrative: 2

During departure from Las Vegas we were assigned the RADYR 2 RNAV Departure off of Runway 1R. Prior to departure we were assigned 6000 ft. as a top altitude by ATC. As we climbed out and leveled off at 6000 ft., we turned and were approaching HRRLY intersection we were given an "unable next altitude" message on the FMC. Shortly after the message, the terrain prior to GRUDN began turning yellow. The Captain and I agreed we needed to immediately request a higher altitude from ATC. As we requested the altitude the terrain became a solid yellow block on our display. As ATC was giving us clearance to a higher altitude we received a "Caution Obstacle" alert from our GPWS system. I disconnected the autopilot and autothrottle, added power, and corrected the flight path while climbing clear of the caution without further incident.

Synopsis

Air carrier flight crew reported that while on an RNAV SID to LAS, ATC failed to issue a timely climb to comply with altitude restriction and terrain, resulting in the crew taking evasive action in response to a GPWS caution.

Time / Day

Date : 202110

Local Time Of Day : 1801-2400

Place

Locale Reference.Airport : ZZZ.Airport

State Reference : US

Altitude.AGL.Single Value : 0

Environment

Light : Night

Aircraft : 1

Reference : X

ATC / Advisory.Tower : ZZZ

Aircraft Operator : Air Carrier

Make Model Name : Commercial Fixed Wing

Crew Size.Number Of Crew : 2

Operating Under FAR Part : Part 121

Flight Plan : IFR

Mission : Passenger

Nav In Use : FMS Or FMC

Nav In Use : GPS

Flight Phase : Takeoff / Launch

Route In Use : Direct

Aircraft : 2

Reference : Y

ATC / Advisory.Tower : ZZZ

Aircraft Operator : Air Carrier

Make Model Name : Commercial Fixed Wing

Crew Size.Number Of Crew : 2

Operating Under FAR Part : Part 121

Flight Plan : IFR

Mission : Passenger

Nav In Use : FMS Or FMC

Nav In Use : GPS

Flight Phase : Landing

Route In Use : Direct

Person : 1

Location Of Person.Aircraft : X

Location In Aircraft : Flight Deck

Reporter Organization : Air Carrier

Function.Flight Crew : First Officer

Function.Flight Crew : Pilot Not Flying

Qualification.Flight Crew : Multiengine

Qualification.Flight Crew : Air Transport Pilot (ATP)

Qualification.Flight Crew : Instrument

ASRS Report Number.Accession Number : 1848351
Human Factors : Communication Breakdown
Human Factors : Distraction
Human Factors : Other / Unknown
Human Factors : Situational Awareness
Human Factors : Time Pressure
Human Factors : Workload
Human Factors : Confusion
Communication Breakdown.Party1 : Flight Crew
Communication Breakdown.Party2 : ATC

Person : 2

Location Of Person.Aircraft : X
Location In Aircraft : Flight Deck
Reporter Organization : Air Carrier
Function.Flight Crew : Pilot Flying
Function.Flight Crew : Captain
Qualification.Flight Crew : Air Transport Pilot (ATP)
Qualification.Flight Crew : Instrument
Qualification.Flight Crew : Multiengine
ASRS Report Number.Accession Number : 1848420
Human Factors : Communication Breakdown
Human Factors : Distraction
Human Factors : Situational Awareness
Human Factors : Time Pressure
Human Factors : Troubleshooting
Human Factors : Workload
Human Factors : Other / Unknown
Human Factors : Confusion
Communication Breakdown.Party1 : Flight Crew
Communication Breakdown.Party2 : ATC

Events

Anomaly.ATC Issue : All Types
Anomaly.Conflict : NMAC
Anomaly.Conflict : Ground Conflict, Critical
Anomaly.Deviation / Discrepancy - Procedural : Published Material / Policy
Detector.Automation : Air Traffic Control
Detector.Person : Flight Crew
Detector.Person : Air Traffic Control
Were Passengers Involved In Event : N
When Detected : In-flight
Result.Flight Crew : Took Evasive Action
Result.Air Traffic Control : Issued Advisory / Alert

Assessments

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

Narrative: 1

ZZZ Tower cleared us to line up and wait on Runway XL for an Aircraft Y on a 4 mile final for the crossing Runway YZ and then cleared us for takeoff on XL after only sitting for about 30 seconds. We couldn't see the Aircraft 2 because it was in both of our blind spots so we assumed the controller had the proper spacing to make it work. Right before we hit 80 knots I made visual contact with the Aircraft Y converging with us. As we reached V1 I realized that we were on a perfect collision course with the traffic at the runway intersection. We couldn't reject as we were reaching V1 and if they didn't go around and we rejected we would've hit them on the runway no doubt, but at that moment ZZZ tower called up with collision alarms blaring in the background telling them to go around as we rotated. I out loud confirmed that the Captain had them in sight to begin maneuvering under them. However now we were both climbing for the exact same point in the sky and ZZZ Tower began yelling for us to level at 1,000 feet and both to turn, us left and them right only to switch the directions up a few seconds later realizing his mistake. We flew directly under the Aircraft maintaining visual separation and broke into a right turn. We later looked at a playback on the ground in ZZZ1 and found that we missed each other by about 300 feet. The Captain maintained aircraft control the entire time and never stopped flying the airplane. I attribute the outcome to excellent CRM and a phenomenal Captain. We complied with vectors and reconfigured the aircraft and continued the rest of the flight with no issues. Tower apologized in their final remarks to us and took full credit for the incident.

Narrative: 2

At around midnight we were taking the Runway XL in ZZZ "line up and wait" we were advised that Aircraft Y was on a 4 mile final landing Runway YZ and additional traffic crossing downfield. We were given the clearance by tower " Aircraft X Runway XL fly heading 080 cleared for takeoff". We took off at the same time tower had instructed "Aircraft Y go around, go around and climb hard, climbing right turn please." They had instructed us as we were taking off to maintain in 1,000 feet and to make a left turn "hard left turn" then shortly after that clearance tower amended that and instructed us to make a right turn (which I think we were both thinking was the safest course of action at the time). After the traffic was no longer a factor anymore tower said on frequency " Aircraft X that was all my fault there, climb and maintain 5,000 feet and go back to a heading of 080". That was a little too close for comfort and left me feeling extremely uneasy the whole flight. We proceeded to ZZZ1 without any further incidents. Pay closer attention to all the crossing/landing/take-off clearances while lining up and waiting and when cleared for take-off. I am pretty good at doing that usually but that night I had lost track of who was who and who was were.

Synopsis

Air carrier flight crew reported a NMAC while taking off. The crew was cleared for takeoff while another aircraft was cleared to land on an intersecting runway. The tower controller, realizing the mistake, instructed the landing aircraft to go-around. As the landing aircraft commenced go-around the Air Carrier crew reported they flew 300 feet under the go-around aircraft.

Time / Day

Date : 202110

Local Time Of Day : 0601-1200

Place

Locale Reference.ATC Facility : ZDV.ARTCC

State Reference : CO

Altitude.MSL.Single Value : 37000

Environment

Light : Daylight

Aircraft

Reference : X

ATC / Advisory.Center : ZDV

Aircraft Operator : Air Carrier

Make Model Name : Commercial Fixed Wing

Crew Size.Number Of Crew : 2

Operating Under FAR Part : Part 121

Flight Plan : IFR

Mission.Other

Nav In Use : FMS Or FMC

Nav In Use : GPS

Flight Phase : Cruise

Route In Use : Direct

Person : 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)

Qualification.Flight Crew : Instrument

Qualification.Flight Crew : Multiengine

Experience.Flight Crew.Last 90 Days : 200

Experience.Flight Crew.Type : 11000

ASRS Report Number.Accession Number : 1847050

Human Factors : Communication Breakdown

Human Factors : Human-Machine Interface

Human Factors : Situational Awareness

Human Factors : Troubleshooting

Human Factors : Confusion

Communication Breakdown.Party1 : Flight Crew

Communication Breakdown.Party2 : ATC

Person : 2

Location Of Person.Aircraft : X

Location In Aircraft : Flight Deck

Reporter Organization : Air Carrier
Function.Flight Crew : Pilot Flying
Function.Flight Crew : First Officer
Qualification.Flight Crew : Air Transport Pilot (ATP)
Qualification.Flight Crew : Multiengine
Qualification.Flight Crew : Instrument
Experience.Flight Crew.Last 90 Days : 180
Experience.Flight Crew.Type : 1800
ASRS Report Number.Accession Number : 1848621
Human Factors : Communication Breakdown
Communication Breakdown.Party1 : Flight Crew
Communication Breakdown.Party2 : ATC

Events

Anomaly.Deviation - Track / Heading : All Types
Anomaly.Deviation / Discrepancy - Procedural : Clearance
Detector.Automation : Air Traffic Control
Detector.Person : Air Traffic Control
Were Passengers Involved In Event : N
When Detected : In-flight
Result.Flight Crew : Requested ATC Assistance / Clarification
Result.Flight Crew : Became Reoriented
Result.Air Traffic Control : Issued Advisory / Alert

Assessments

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

Narrative: 1

Denver Center cleared us direct to MITBEE (MMB), but we heard MNKEE instead. Both fixes were on our route. Since we didn't know that MMB was MITBEE until much later in the flight, we assumed the clearance was direct MNKEE. We read back "cleared direct MNKEE" to Denver Center and then programmed the LNAV direct and executed that clearance. Later in the flight, ATC asked us which fix we were flying to and we said MNKEE. The Controller and I figured out that we had previously been cleared to MITBEE, but had mistakenly proceeded to MNKEE. Both fixes were on our route and sounded similar. We repeated the wrong fix and our error was not noticed by ATC. This type of error is very difficult to catch. Crew vigilance and situational awareness must be maintained to try to trap such errors. ATC could have told us "cleared direct MITBEE, Mike Mike Bravo" and that might have prevented our mistake.

Narrative: 2

[Report narrative contained no additional information.]

Synopsis

Air carrier flight crew reported after Denver Center issued a clearance to a fix, the flight crew proceeded to a similar sounding fix. ATC informed the flight crew later that they were proceeding to the wrong fix.

Time / Day

Date : 202110

Local Time Of Day : 1201-1800

Place

Locale Reference.ATC Facility : SCT.TRACON

State Reference : CA

Altitude.MSL.Single Value : 7000

Aircraft

Reference : X

ATC / Advisory.TRACON : SCT

Aircraft Operator : Air Carrier

Make Model Name : Commercial Fixed Wing

Crew Size.Number Of Crew : 2

Operating Under FAR Part : Part 121

Flight Plan : IFR

Mission : Passenger

Flight Phase : Initial Approach

Airspace.Class E : SCT

Person : 1

Location Of Person.Aircraft : X

Location In Aircraft : Flight Deck

Reporter Organization : Air Carrier

Function.Flight Crew : Pilot Flying

Function.Flight Crew : First Officer

Qualification.Flight Crew : Instrument

Qualification.Flight Crew : Multiengine

Qualification.Flight Crew : Air Transport Pilot (ATP)

Experience.Flight Crew.Last 90 Days : 100

Experience.Flight Crew.Type : 1373

ASRS Report Number.Accession Number : 1847008

Human Factors : Confusion

Human Factors : Situational Awareness

Human Factors : Communication Breakdown

Communication Breakdown.Party1 : Flight Crew

Communication Breakdown.Party2 : ATC

Person : 2

Location Of Person.Aircraft : X

Location In Aircraft : Flight Deck

Reporter Organization : Air Carrier

Function.Flight Crew : Captain

Function.Flight Crew : Pilot Not Flying

Qualification.Flight Crew : Multiengine

Qualification.Flight Crew : Air Transport Pilot (ATP)

Qualification.Flight Crew : Instrument

Experience.Flight Crew.Last 90 Days : 202

Experience.Flight Crew.Type : 65400
ASRS Report Number.Accession Number : 1847048
Human Factors : Confusion
Human Factors : Situational Awareness
Human Factors : Communication Breakdown
Communication Breakdown.Party1 : Flight Crew
Communication Breakdown.Party2 : ATC

Events

Anomaly.ATC Issue : All Types
Anomaly.Deviation - Altitude : Excursion From Assigned Altitude
Anomaly.Deviation / Discrepancy - Procedural : Clearance
Anomaly.Inflight Event / Encounter : CFTT / CFIT
Detector.Person : Air Traffic Control
When Detected : In-flight
Result.Flight Crew : Returned To Clearance
Result.Flight Crew : Became Reoriented
Result.Air Traffic Control : Issued Advisory / Alert

Assessments

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

Narrative: 1

I was the Pilot Flying. The flight was uneventful until the approach. This was my first time into PSP in a long time and the Captain had only been in there a few times previously. We were able to get the METAR only while en route and it was reporting the wind VRB at 4 knots. This left us guessing on what runway they were using, but saw in the forecast that the wind would be shifting to the northwest. We decided to set up for the RNAV visual to 31L. About 15 minutes out, we received the voice ATIS which confirmed 31L. We checked on with SoCal Approach and they said expect vectors for the visual to 31L. Since we were both pretty unfamiliar with the airport and with all the high terrain, we were more comfortable with the RNAV visual and requested that. We received a vector out to the north of SBONO and a descent to 7,000 feet. The airport was in sight almost the entire time we were vectored. However, as we were getting closer to SBONO the sun was creating a lot of visibility issues and we lost sight of the field. There was also a lot of haze and the mountain behind the airport cast a shadow over it making it very difficult to see. We also noticed our descent to 7,000 feet took us below what's published at SBONO, which says to cross at or above 7,500 feet. We asked the Controller to confirm we were cleared to 7,000 feet and he responded "that's what I was told." We were sort of confused by the response but could see that terrain would be no factor. I was still a little unsure if we would be given direct to SBONO or another intermediate fix. A few miles from SBONO we were given direct to it and to report the airport in sight. We could not see the airport at this time due to setting sun. We both were trying to visually acquire it and became distracted with it. During that time, I set 1,300 feet in the altitude selector and we were in VNAV path. I think I announced to the Captain "That is what I was doing," but can't say with certainty. The aircraft was in VNAV PATH, so after crossing SBONO, it started descending to cross WEMIR at or above 6,000 feet. At about 6,400 feet, the Controller came on and said to stop the descent and climb back to 6,600 ft. and that we were not cleared for the visual approach and we need to report the airport in sight. We climbed up to 6,600 feet which he said was the minimum vectoring altitude. We continued flying the

lateral portion now becoming really high. We still couldn't see the field and the Controller said he couldn't get us a descent even though according to the chart we could be at 4,000 feet. Eventually we located the airport and he cleared us for the visual approach. We were configured and able to get back on path to execute a stable approach. The rest of the flight was uneventful. The lighting conditions made our visual approach very difficult. I should have better communicated the setting of a lower altitude and made sure the Captain agreed with it. I must say, the attitude and helpfulness of this Controller was poor. The response we got when verifying an altitude was non-standard and unprofessional. Our clearance was also not very clear but we should have verified it before descending. Sometimes a little more communication from the Controllers helps so we have a more shared mental model. I think putting a little more on the Company page could help because I was not really sure what to expect as far as an approach going in. More communication from the controller on what to expect and better [automation management] on my part.

Narrative: 2

We requested an RNAV visual [Runway] 13R, since we were flying into the sun and there was a thick haze in the valley. We were given 7,000 feet, then direct SBONO. SBONO has a restriction of 7, 500 feet or above. I asked approach to verify 7,000 feet was the assigned altitude since SBONO was 7,500 feet. The Controller replied "That's what I was told," in a very condescending tone. We were headed directly into the sun and there was a thick haze in the valley. The Controller asked us to report the field. I was looking intently for the field leaning over the glare shield so I did not have the MCP or anything below it in view. We were headed right into the sun and there was thick haze up the valley. The approach was going to turn us north, so I knew we would be able to see the field then. The Controller had given us direct SBONO but not a clearance for the approach. As I was looking for the field, the Controller told us to "Stop descent and climb to 6,600 feet. You were not cleared for the approach! I looked at the MCP and saw that my FO had begun the descent. The Controller stated "You were not cleared for the approach, but told to report the field." I told him there was thick haze and the Sun was in our eyes. He said "Well you asked for the RNAV. What would you want to do? Something else?" I just replied that we would have the field soon. He had to stop someone else from climbing and explained to the other aircraft that he had an aircraft descend that he had not expected. I finally spotted the field and informed him, then he cleared us to 4,000 feet, then handed us over to Tower. All we needed was for Approach to turn us north. While it was an error on my part, in not monitoring the approach, I was taken aback by the Controllers attitude that I hesitated to respond to his asking "What would you like?" He seemed to have not liked our request for this approach. He cleared us direct SBONO but did not confirm 7,000 feet. While it was our fault that the descent was started early, his attitude and lack of input were not helpful. When we finally spotted the field he cleared us to 4,000 feet and handed us off to the Tower. The rest of the approach was uneventful. While I admit that I failed to do proper monitoring, mitigating circumstances were at play in that I was intently looking out the forward windshield for the field under a very difficult visual situation and he did not reassert 7,000 feet. I found the Controller to be totally unhelpful and confrontational. We were both unfamiliar with this approach and airport from this direction and that is why we requested the RNAV visual. The Controller could have been more helpful by clearing us to SBONO but reminding us to maintain 7,000 feet, or suggesting another approach or even giving us vectors. He was totally unhelpful, which in my experience, is very unusual from Controllers in general, from my experience.

Synopsis

Air carrier flight crew reported descending on a visual approach to PSP Airport before being cleared to do so. Flight crew stated that due to the hazy conditions and angle of the sun they had difficulty visually finding the field. Flight crew added that issues with unclear ATC communications contributed to the event.

Time / Day

Date : 202110

Local Time Of Day : 1801-2400

Place

Locale Reference.ATC Facility : ZZZ.ARTCC

State Reference : US

Relative Position.Angle.Radial : 350

Relative Position.Distance.Nautical Miles : 10

Altitude.MSL.Single Value : 6000

Environment

Flight Conditions : Mixed

Weather Elements / Visibility.Visibility : 10

Ceiling.Single Value : 3000

Aircraft

Reference : X

ATC / Advisory.Center : ZZZ

Aircraft Operator : FBO

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

Crew Size.Number Of Crew : 2

Operating Under FAR Part.Other

Flight Plan : IFR

Mission : Training

Nav In Use : GPS

Nav In Use.Localizer/Glideslope/ILS : RNAV Y

Flight Phase : Initial Approach

Flight Phase : Final Approach

Route In Use : Direct

Airspace.Class E : ZZZ

Person : 1

Location Of Person.Aircraft : X

Location In Aircraft : Flight Deck

Reporter Organization : FBO

Function.Flight Crew : Instructor

Function.Flight Crew : Pilot Not Flying

Qualification.Flight Crew : Instrument

Qualification.Flight Crew : Commercial

Qualification.Flight Crew : Flight Instructor

Experience.Flight Crew.Total : 960

Experience.Flight Crew.Last 90 Days : 150

Experience.Flight Crew.Type : 700

ASRS Report Number.Accession Number : 1846857

Human Factors : Communication Breakdown

Human Factors : Distraction

Human Factors : Time Pressure

Human Factors : Troubleshooting

Human Factors : Workload
Human Factors : Situational Awareness
Communication Breakdown.Party1 : Flight Crew
Communication Breakdown.Party2 : ATC

Person : 2

Location Of Person.Aircraft : X
Reporter Organization : FBO
Function.Flight Crew : Pilot Flying
Qualification.Flight Crew : Instrument
Qualification.Flight Crew : Private
Experience.Flight Crew.Total : 220
Experience.Flight Crew.Last 90 Days : 21
Experience.Flight Crew.Type : 9
ASRS Report Number.Accession Number : 1846930
Human Factors : Communication Breakdown
Human Factors : Confusion
Human Factors : Distraction
Human Factors : Time Pressure
Human Factors : Workload
Human Factors : Situational Awareness
Communication Breakdown.Party1 : Flight Crew
Communication Breakdown.Party2 : ATC

Events

Anomaly.Deviation - Track / Heading : All Types
Anomaly.Deviation / Discrepancy - Procedural : Clearance
Anomaly.Inflight Event / Encounter : CFTT / CFIT
Detector.Automation : Aircraft Terrain Warning
Were Passengers Involved In Event : N
When Detected : In-flight
Result.Flight Crew : Took Evasive Action
Result.Flight Crew : Executed Go Around / Missed Approach
Result.Air Traffic Control : Issued Advisory / Alert

Assessments

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

Narrative: 1

Student filed IFR Cross country plan to ZZZ via ZZZ ZZZ1 ZZZ with the RNAV Y into ZZZ1. Contact was made with center after being handed off by Departure and the instrument approach was executed with a touch and go on Runway XX. After the touch and go the Instructor and Student were startled by a TCAS/ Terrain warning which led to a deviation from the missed approach procedure. Once contact was re-established with Center the student and instructor were called out for a possible pilot deviation and given the number to call. While the instructor failed to remind the student of their responsibility as instrument pilots to execute the missed approach on an IFR flight plan, due to the Terrain warning both pilots decided to alter course to maintain obstruction and terrain clearance which led to the deviation. Both pilots will be calling the number and starting the recovery process asap, as well as completing FAA online IFR recurring courses.

Narrative: 2

With an instructor on board, I filed an IFR cross-country flight plan to ZZZ via ZZZ ZZZ1 ZZZ with the RNAV Y into ZZZ1 for a touch-and-go (as stated in the flight plan remarks). Contact was made with Center after being handed off by Departure and the instrument approach was executed with a touch and go on Runway XX. After the touch-and-go, both my instructor and I were startled by a TCAS/Terrain warning which led to a deviation from the missed approach procedure as we turned from the surrounding hills. Once contact was re-established with Center, we were called out for a possible pilot deviation and given a number to call. While the instructor failed to remind the student of their responsibility as instrument pilots to execute the missed approach on an IFR flight plan, due to the Terrain warning both pilots decided to alter course to maintain obstruction and terrain clearance which led to the deviation. Both pilots will be calling the number and starting the recovery process ASAP and completing FAA online IFR recurring courses.

Synopsis

Instructor Pilot and Trainee reported not following the published missed approach procedures on an RNAV approach. The pilots reported after completing a touch and go, they received a terrain warning which resulted in deviation from the procedures.

Time / Day

Date : 202110

Local Time Of Day : 0601-1200

Place

Locale Reference.ATC Facility : ZZZZ.Tower

State Reference : FO

Altitude.AGL.Single Value : 0

Aircraft : 1

Reference : X

ATC / Advisory.Tower : ZZZZ

Aircraft Operator : Air Carrier

Make Model Name : Commercial Fixed Wing

Crew Size.Number Of Crew : 2

Operating Under FAR Part : Part 121

Flight Plan : IFR

Mission : Passenger

Flight Phase : Taxi

Aircraft : 2

Reference : Y

ATC / Advisory.Tower : ZZZZ

Make Model Name : Any Unknown or Unlisted Aircraft Manufacturer

Flight Phase : Landing

Person : 1

Location Of Person.Aircraft : X

Location In Aircraft : Flight Deck

Reporter Organization : Air Carrier

Function.Flight Crew : First Officer

Function.Flight Crew : Pilot Flying

Qualification.Flight Crew : Multiengine

Qualification.Flight Crew : Instrument

Qualification.Flight Crew : Air Transport Pilot (ATP)

ASRS Report Number.Accession Number : 1844305

Human Factors : Communication Breakdown

Human Factors : Situational Awareness

Communication Breakdown.Party1 : Flight Crew

Communication Breakdown.Party2 : ATC

Person : 2

Location Of Person.Aircraft : X

Location In Aircraft : Flight Deck

Reporter Organization : Air Carrier

Function.Flight Crew : Pilot Flying

Function.Flight Crew : Captain

Qualification.Flight Crew : Multiengine

Qualification.Flight Crew : Air Transport Pilot (ATP)

Qualification.Flight Crew : Instrument
ASRS Report Number.Accession Number : 1844017
Human Factors : Communication Breakdown
Communication Breakdown.Party1 : Flight Crew
Communication Breakdown.Party2 : ATC

Events

Anomaly.ATC Issue : All Types
Anomaly.Conflict : Ground Conflict, Critical
Anomaly.Deviation / Discrepancy - Procedural : Published Material / Policy
Detector.Person : Flight Crew
When Detected : Taxi
Result.Flight Crew : Requested ATC Assistance / Clarification

Assessments

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

Narrative: 1

After starting engines and completing the before takeoff checklist on the ZZZZ Ramp, ZZZZ Tower Control cleared us to back taxi & lineup/wait runway XX, and the I correctly read those instructions back to the controller. Before taxiing onto the runway from taxiway C--which is approximately 3,500 ft. from the approach end of Runway XX--we verified that both the runway and final approach areas were clear, especially since it was still dark out, wet runway, and the weather was reported scattered at 2,000 ft AGL. With about 2,000 ft. of taxi distance remaining, both the Captain & I observed an approaching aircraft's landing lights breaking out of the weather. (Call sign of that aircraft is unknown.) Captain observed on TCAS that the approaching aircraft was only about 500 ft above our position at field elevation. At no time did we hear communication between the approaching aircraft and tower prior to observing the landing lights. This also highlights that the actual weather on approach to Runway XX was significantly lower than the reported 2,000 ft. scattered. I immediately communicated via tower freq "The approaching aircraft needs to go around, we are still on the runway" at which point we observed a climb from the approaching aircraft while the tower controller and approaching aircraft pilot were communicating in non-English. With the approaching aircraft go-around underway, we completed our back-taxi, and were cleared for an uneventful takeoff & departure shortly thereafter. We operated strictly IAW flight manual and ICAO procedures, to include maintaining SA of the aerodrome environment which allowed us to see the traffic and direct the go-around, preventing a more dramatic outcome. The cause is very simply sub-standard Country ATC operations that allowed this situation to arise. (Regrettably--and even though this was the first experience for me in the dozen or so times I have operated in Country--events like this are purportedly not uncommon in Country based on fellow pilots' accounts. Country operators do not adhere to the highest standards of ICAO procedures.) In this case, it is safe to assume that there was a likely ATC coordination breakdown between approach and tower controllers since we were cleared onto an active runway while an approaching aircraft was on final approach. And for whatever reason, the approaching aircraft was not on tower freq until well inside the final approach fix, otherwise we would have heard the check in. Also, had it been VMC, we would have likely seen the aircraft on approach and declined to take the runway. NEVER get complacent operating in Country.

Narrative: 2

We were given clearance to back taxi and to line up and wait on Runway XX in ZZZZ. After receiving the clearance, I confirmed with my First Officer, turned on all aircraft lighting, checked for traffic, and proceeded. While taxiing on the runway, we observed landing lights breaking out of what appeared to be an overcast layer from an approaching aircraft. My first officer immediately transmitted on the tower frequency that "the approaching aircraft needs to go around, we are on the runway". I recall that simultaneously the aircraft started a climb and there was communication in non-English on the tower frequency. We were subsequently given clearance for takeoff. Human error on ATC. Add a parallel taxiway at ZZZZ airport.

Synopsis

Flight crew reported while maneuvering on the runway for takeoff, they observed lights from a landing aircraft. Flight Crew advised they told landing aircraft to go around.

Time / Day

Date : 202110

Local Time Of Day : 1201-1800

Place

Locale Reference.Airport : ZZZ.Airport

State Reference : US

Relative Position.Distance.Nautical Miles : .75

Altitude.MSL.Single Value : 1500

Environment

Flight Conditions : VMC

Weather Elements / Visibility.Visibility : 10

Light : Daylight

Ceiling.Single Value : 10000

Aircraft : 1

Reference : X

ATC / Advisory.Tower : ZZZ

Aircraft Operator : Personal

Make Model Name : Albatros (L39)

Crew Size.Number Of Crew : 2

Operating Under FAR Part : Part 91

Flight Plan : None

Mission : Personal

Flight Phase : Initial Approach

Route In Use : Visual Approach

Airspace.Class C : ZZZ

Aircraft : 2

Reference : Y

Make Model Name : Skyhawk 172/Cutlass 172

Crew Size.Number Of Crew : 1

Flight Phase : Initial Approach

Airspace.Class C : ZZZ

Person : 1

Location Of Person.Aircraft : X

Location In Aircraft : Flight Deck

Reporter Organization : Personal

Function.Flight Crew : Pilot Flying

Function.Flight Crew : Instructor

Qualification.Flight Crew : Instrument

Qualification.Flight Crew : Flight Instructor

Qualification.Flight Crew : Commercial

Qualification.Flight Crew : Multiengine

Experience.Flight Crew.Total : 1130

Experience.Flight Crew.Last 90 Days : 250

Experience.Flight Crew.Type : 0

ASRS Report Number.Accession Number : 1843496
Human Factors : Confusion
Human Factors : Situational Awareness
Human Factors : Communication Breakdown
Communication Breakdown.Party1 : Flight Crew
Communication Breakdown.Party2 : ATC

Person : 2

Location Of Person.Aircraft : X
Location In Aircraft : Flight Deck
Reporter Organization : Personal
Function.Flight Crew : Pilot Flying
Qualification.Flight Crew : Private
Qualification.Flight Crew : Instrument
Experience.Flight Crew.Total : 1660
Experience.Flight Crew.Last 90 Days : 81
Experience.Flight Crew.Type : 195
ASRS Report Number.Accession Number : 1843523
Human Factors : Communication Breakdown
Human Factors : Situational Awareness
Human Factors : Confusion
Communication Breakdown.Party1 : Flight Crew
Communication Breakdown.Party2 : ATC

Events

Anomaly.ATC Issue : All Types
Anomaly.Conflict : NMAC
Anomaly.Deviation - Track / Heading : All Types
Anomaly.Deviation / Discrepancy - Procedural : Clearance
Result.Flight Crew : Requested ATC Assistance / Clarification
Result.Flight Crew : Took Evasive Action
Result.Air Traffic Control : Provided Assistance
Result.Air Traffic Control : Issued New Clearance

Assessments

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

Narrative: 1

Myself, a Commercial pilot, CFI-I and a Private Pilot who owned the aircraft were flying back into ZZZ and had requested the overhead break approach. The approach controller cleared us for the approach and informed us to report a 2 mile initial for the approach. At the same time a C172 was on the ILS XX at ZZZ above us. When we reported the 2 mile initial for the overhead break we had just passed underneath the C172 and subsequently lost visual contact on the aircraft as they were above and behind us. The tower cleared us for a right break over the departure end of Runway XX and to wait for the tower to call the base turn. I am not sure why but both myself and the other pilot on board misinterpreted the exact location to start the approach. We both believed that we should start the turn over the approach end of Runway XX, even after correctly repeating back the instructions for starting the turn on the departure end. Again, I am not entirely sure why two experienced pilots both misinterpreted a relatively simple instruction, but a

misunderstanding between pilot and controller was evident. The pilot who was on the radio asked the control tower for clarification on when to start the break and we were met with no answer. I began the right turn over the approach end of the runway. The control tower immediately requested to know what our intentions were. Again, we asked for clarification on when to start the turn on the break and the tower instructed us to continue the downwind and wait for clearance to turn base. This was where the major mistake was made, as I continued the right turn into the final approach corridor. I am not sure why I made this mistake, most likely due to stress and loss of situational awareness, however I believe continuing the right turn was probably the worst reaction to those stressors as I knew there was an aircraft somewhere near my altitude and on a converging path. The appropriate reaction would have been to turn away from the final approach corridor. We came close to colliding with the C172, although I never had visual contact on the aircraft so I am not sure how close. A few key points that I believe helped in creating the misunderstanding were the clearance for the overhead break. The intentions of the tower and the intentions of the pilots were very different in this case. The tower needed us to extend our upwind and then extend our downwind. We were anticipating an overhead break approach where we kept a tight break into a descending approach onto final. I believe both myself and the tower could have made our mutual intentions clearer to each other to help avoid this near miss from happening. I believe there was also an error with the sequencing of the aircraft. We were brought in underneath an aircraft on the ILS and that led to loss of SA, knowing that we were going to be turning back into the direction of that plane.

Narrative: 2

Doing an overhead break approach to Runway XX at ZZZ I was given instruction to break over the departure end of the runway and land #2 behind traffic on final. I have done the overhead break approach over 100 times and have always gotten break over the numbers or midfield. I know now that the controller wanted me to break over the far end of the runway (over number XY), not over the number XX. I didn't understand the sequencing and asked for clarification 3 times. The controller repeated the instructions twice (which I still didn't understand) and the 3rd time didn't answer me. I broke over the numbers XX and announced my break to the controller and asked if we were cleared to land. I was still at 1500 ft. AGL and turning right base, and the controller told me to establish on the downwind. At this point I was not clear which way to go and was eventually told to maintain heading and climb (in a series of radio calls). We came around and repeated the maneuver and was cleared to break over the numbers without any issues. My mistakes were not understanding that I was expected to break at the far end of the runway (which was the first time I had ever gotten this direction), not understanding what the controller wanted me to do when he realized we broke early, not asking for a go around early in the process because of the lack of understanding on my part.

Synopsis

Pilot and a Flight Instructor reported a NMAC occurred after they incorrectly executed an 'overhead break' clearance issued by ATC. Reporters stated they turned over the approach end of the runway rather than the departure end putting them in proximity to another aircraft on approach.

Time / Day

Date : 202110

Local Time Of Day : 1201-1800

Place

Locale Reference.Airport : ZZZ.Airport

State Reference : US

Altitude.AGL.Single Value : 0

Environment

Flight Conditions : VMC

Aircraft : 1

Reference : X

ATC / Advisory.Ground : ZZZ

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 : Cargo / Freight / Delivery

Flight Phase : Taxi

Aircraft : 2

Reference : Y

ATC / Advisory.Ground : ZZZ

Make Model Name : Gulfstream Jet Undifferentiated or Other Model

Crew Size.Number Of Crew : 2

Operating Under FAR Part : Part 121

Flight Plan : IFR

Flight Phase : Taxi

Aircraft : 3

Reference : Z

ATC / Advisory.Ground : ZZZ

Aircraft Operator : Air Carrier

Make Model Name : B767 Undifferentiated or Other Model

Crew Size.Number Of Crew : 2

Operating Under FAR Part : Part 121

Flight Plan : IFR

Flight Phase : Taxi

Person : 1

Location Of Person.Aircraft : X

Location In Aircraft : Flight Deck

Reporter Organization : Air Carrier

Function.Flight Crew : Pilot Not Flying

Function.Flight Crew : First Officer

Qualification.Flight Crew : Air Transport Pilot (ATP)
Qualification.Flight Crew : Instrument
Qualification.Flight Crew : Multiengine
ASRS Report Number.Accession Number : 1843408
Human Factors : Communication Breakdown
Human Factors : Confusion
Human Factors : Situational Awareness
Communication Breakdown.Party1 : Flight Crew
Communication Breakdown.Party2 : ATC

Person : 2

Location In Aircraft : Flight Deck
Function.Flight Crew : Pilot Flying
Function.Flight Crew : Captain
Qualification.Flight Crew : Instrument
Qualification.Flight Crew : Multiengine
Qualification.Flight Crew : Air Transport Pilot (ATP)
ASRS Report Number.Accession Number : 1843410
Human Factors : Confusion
Human Factors : Situational Awareness
Human Factors : Communication Breakdown
Communication Breakdown.Party1 : Flight Crew
Communication Breakdown.Party2 : ATC

Events

Anomaly.ATC Issue : All Types
Anomaly.Conflict : Ground Conflict, Critical
Anomaly.Ground Incursion : Runway
Detector.Person : Flight Crew
When Detected : Taxi
Result.Flight Crew : Took Evasive Action

Assessments

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

Narrative: 1

While taxiing from the southeast ramp, westbound on taxiway 1, Ground Control issued us the following clearance, "Aircraft X, taxi to Runway XXL via [Taxiway] 2, cleared to cross Runway XY, give way to Aircraft Y on [Taxiway] 3." As we turned southbound onto Taxiway 2, as I was looking right to clear for crossing the runway, the Captain brought the aircraft to an abrupt stop and I noted a 767 taxiing westbound on Runway XY. Luckily the Captain saw them before we hit them. We queried Ground Control about the conflict and we noted that the 767 crew remarked, "That was a close call". There was never any mention of giving way to a 767 taxiing westbound on Runway XY in our taxi instructions. Human Factors breakdown.

Narrative: 2

While taxiing to Spot X on Taxiway 1, Ground issued the following clearance just prior to reaching Spot X: "Aircraft X Taxi to Runway XXL via [Taxiway] 2, cleared to cross Runway XY, give way to Aircraft Y on [Taxiway] 3." As I turned the airplane onto Taxiway 2 (north

side of Runway XY) to cross Runway XY, I had to yield/stop uninstructed to give way to a 767 aircraft taxiing on Runway XY westbound from my left to avoid a taxi incursion with that aircraft.

Synopsis

Pilots reported a ground conflict with an unknown aircraft while looking for ATC issued traffic.

Time / Day

Date : 202109

Local Time Of Day : 0601-1200

Place

Locale Reference.ATC Facility : ZOB.ARTCC

State Reference : OH

Altitude.MSL.Single Value : 9000

Environment

Flight Conditions : VMC

Weather Elements / Visibility.Visibility : 10

Light : Dawn

Ceiling : CLR

Aircraft

Reference : X

ATC / Advisory.Center : ZOB

Aircraft Operator : Air Taxi

Make Model Name : Small Transport

Crew Size.Number Of Crew : 2

Operating Under FAR Part : Part 135

Flight Plan : IFR

Mission : Passenger

Flight Phase : Cruise

Airspace.Class E : ZOB

Component

Aircraft Component : Air/Ground Communication

Aircraft Reference : X

Problem : Malfunctioning

Problem : Failed

Person : 1

Location Of Person.Aircraft : X

Location In Aircraft : Flight Deck

Reporter Organization : Air Taxi

Function.Flight Crew : Captain

Function.Flight Crew : Pilot Not Flying

Qualification.Flight Crew : Air Transport Pilot (ATP)

Qualification.Flight Crew : Instrument

Qualification.Flight Crew : Multiengine

Experience.Flight Crew.Total : 2960

Experience.Flight Crew.Last 90 Days : 300

Experience.Flight Crew.Type : 2610

ASRS Report Number.Accession Number : 1842291

Human Factors : Communication Breakdown

Human Factors : Distraction

Human Factors : Human-Machine Interface

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

Person : 2

Location Of Person.Aircraft : X
Location In Aircraft : Flight Deck
Reporter Organization : Air Taxi
Function.Flight Crew : Pilot Flying
Function.Flight Crew : First Officer
Qualification.Flight Crew : Multiengine
Qualification.Flight Crew : Commercial
Qualification.Flight Crew : Instrument
Experience.Flight Crew.Total : 1240
Experience.Flight Crew.Last 90 Days : 200
Experience.Flight Crew.Type : 450
ASRS Report Number.Accession Number : 1842295
Human Factors : Communication Breakdown
Communication Breakdown.Party1 : Flight Crew
Communication Breakdown.Party2 : ATC

Events

Anomaly.ATC Issue : All Types
Anomaly.Deviation / Discrepancy - Procedural : Clearance
Detector.Person : Flight Crew
When Detected : In-flight
Result.Flight Crew : Overcame Equipment Problem

Assessments

Contributing Factors / Situations : ATC Equipment / Nav Facility / Buildings
Contributing Factors / Situations : Environment - Non Weather Related
Primary Problem : ATC Equipment / Nav Facility / Buildings

Narrative: 1

Lost communications with ARTCC Cleveland Center. The flight departed BFD en route to ZZZ via ETG V33 [...]. We picked up the clearance and were released for departure through Cleveland Center while on the ground in BFD over 124.32 (Cleveland Center Bradford Sector). Once airborne, we checked in with the same frequency and received radar contact. This was the last time we heard Cleveland Center. Sometime later, approximately fifteen thorough twenty minutes an aircraft relayed a message to us that Cleveland Center was trying to contact us on 124.4 (Cleveland Center Altoona Sector). We acknowledged and reestablished communications with Cleveland Center. The rest of the flight continued without incident. Normally we receive a frequency change somewhere around our top of climb, in this case nine thousand feet. However, none was given or heard. As PIC I should have noticed this earlier and queried ATC. That said, there seems to be a significant gap in coverage in that area. This is most evident when approaching BFD from the south. A frequency change is given from 126.72 to 124.32 and it usually takes several minutes to raise a controller because of this weak signal. The typical scenario is that Cleveland Center is able to hear us trying to check in but we are unable to hear them. It is my belief that this gap may have contributed to the lost communications. If the hand off was made we were not able to hear it.

Narrative: 2

Lost Comms with ARTCC. We contacted Cleveland Center on 124.32 upon start in BFD and picked up our clearance without incident. We contacted Cleveland Center airborne and were given radar contact. This was the last time we heard from them. No hand-off was given. The Captain was pilot on comms and I was pilot flying when he had just completed the VOR check and Engine trend monitoring sheet when we were contacted by an Air Carrier X jet with a relayed message to contact Cleveland Center on 124.4. We contacted Cleveland Center on 124.4 and the flight continued without any further incident.

Synopsis

Air taxi flight crew reported radio issues in the BFD airport area.

Time / Day

Date : 202109

Local Time Of Day : 0601-1200

Place

Locale Reference.ATC Facility : ZZZ.ARTCC

State Reference : US

Altitude.MSL.Single Value : 13000

Environment

Flight Conditions : VMC

Light : Daylight

Aircraft : 1

Reference : X

ATC / Advisory.Center : ZZZ

Aircraft Operator : Corporate

Make Model Name : Falcon 2000

Crew Size.Number Of Crew : 2

Operating Under FAR Part : Part 91

Flight Plan : IFR

Mission : Passenger

Flight Phase : Climb

Route In Use : Vectors

Airspace.Class E : ZZZ

Aircraft : 2

Reference : Y

ATC / Advisory.Center : ZZZ

Make Model Name : Skyhawk 172/Cutlass 172

Flight Phase : Cruise

Airspace.Class E : ZZZ

Person : 1

Location Of Person.Aircraft : X

Location In Aircraft : Flight Deck

Reporter Organization : Corporate

Function.Flight Crew : Pilot Not Flying

Function.Flight Crew : First Officer

Qualification.Flight Crew : Instrument

Qualification.Flight Crew : Flight Instructor

Qualification.Flight Crew : Air Transport Pilot (ATP)

Qualification.Flight Crew : Multiengine

Experience.Flight Crew.Total : 5100

Experience.Flight Crew.Last 90 Days : 80

Experience.Flight Crew.Type : 1100

ASRS Report Number.Accession Number : 1841842

Human Factors : Situational Awareness

Human Factors : Time Pressure

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

Person : 2

Location Of Person.Aircraft : X
Location In Aircraft : Flight Deck
Reporter Organization : Corporate
Function.Flight Crew : Captain
Function.Flight Crew : Pilot Flying
Qualification.Flight Crew : Flight Instructor
Qualification.Flight Crew : Instrument
Qualification.Flight Crew : Multiengine
Qualification.Flight Crew : Air Transport Pilot (ATP)
Experience.Flight Crew.Total : 6305
Experience.Flight Crew.Last 90 Days : 131
Experience.Flight Crew.Type : 1535
ASRS Report Number.Accession Number : 1841868
Human Factors : Communication Breakdown
Human Factors : Situational Awareness
Communication Breakdown.Party1 : Flight Crew
Communication Breakdown.Party2 : ATC

Events

Anomaly.Conflict : NMAC
Anomaly.Deviation - Altitude : Excursion From Assigned Altitude
Anomaly.Deviation / Discrepancy - Procedural : Published Material / Policy
Anomaly.Deviation / Discrepancy - Procedural : Clearance
Detector.Automation : Aircraft RA
Detector.Person : Air Traffic Control
Detector.Person : Flight Crew
Were Passengers Involved In Event : N
When Detected : In-flight
Result.Flight Crew : Took Evasive Action

Assessments

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

Narrative: 1

On our flight today ZZZ ATC leveled us off at 13,000 feet during our climb out for traffic. ATC advised the traffic was Aircraft Y at 13,500 feet. As we got close to the target the TCAS alerted us of a TA immediately followed by an RA. Watching the TCAS it got down to 100 feet of separation. The Captain immediately followed the evasive action from the alert. During the evasive maneuver I informed ATC that we received an RA due to the Aircraft Y and we are following the evasive maneuver. ATC seemed very lost and on what an RA was, after 3 attempts to tell her we received an RA, the Captain told her we received a "Resolution Advisory which supersedes your instructions". ATC then apologizes and asks Aircraft Y their altitude, they report back at 13,400 feet. After receiving the TA I was watching the TCAS and the separation went from +3 to +2 to +1. I suspect Aircraft Y had descended from their assigned altitude of 13,500 feet. Fortunately, everyone was fine and it will make a good learning experience.

Narrative: 2

Leaving ZZZ enroute to ZZZ1 we were told to climb and maintain 13,000 feet on a heading. ATC advised us of traffic, Aircraft Y at 13,500 feet maneuvering. We never had the traffic in sight before we received a TA followed by a RA and complied immediately. During the maneuver, PNF (Pilot Not Flying) alerted ATC and was told that we were not to climb and we were restricted to 13,000 feet. After three attempts to tell ATC we were responding to an RA and that takes priority over their instructions, we finally were able to clear the confusion with the controller. ATC then apologizes and asks Aircraft Y what altitude they were at and he replied "13,400". After the flight, I can only assume Aircraft Y had [descended] through his altitude of 13,500 feet and climbed back up. Fortunately, no one was hurt and the flight completed safely.

Synopsis

Falcon 2000 flight crew reported an NMAC event during departure climb. Pilot flying followed the TCAS RA and reported the incident to ATC.

Time / Day

Date : 202109

Local Time Of Day : 0601-1200

Place

Locale Reference.ATC Facility : ZZZ.Tower

State Reference : US

Relative Position.Angle.Radial : 0

Relative Position.Distance.Nautical Miles : 2

Altitude.MSL.Single Value : 1300

Environment

Flight Conditions : VMC

Weather Elements / Visibility.Visibility : 10

Light : Daylight

Ceiling.Single Value : 3000

Aircraft : 1

Reference : X

ATC / Advisory.Tower : ZZZ

Aircraft Operator : Personal

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

Crew Size.Number Of Crew : 1

Operating Under FAR Part : Part 91

Flight Plan : None

Mission : Training

Flight Phase : Landing

Route In Use : Visual Approach

Route In Use : Direct

Airspace.Class D : ZZZ

Aircraft : 2

Reference : Y

Make Model Name : Any Unknown or Unlisted Aircraft Manufacturer

Crew Size.Number Of Crew : 1

Flight Phase : Initial Approach

Airspace.Class D : ZZZ

Person : 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 : Private

Experience.Flight Crew.Total : 154.6

Experience.Flight Crew.Last 90 Days : 79.5

Experience.Flight Crew.Type : 1.3

ASRS Report Number.Accession Number : 1840152
Human Factors : Communication Breakdown
Human Factors : Confusion
Human Factors : Human-Machine Interface
Human Factors : Time Pressure
Human Factors : Troubleshooting
Human Factors : Workload
Human Factors : Situational Awareness
Communication Breakdown.Party1 : Flight Crew
Communication Breakdown.Party2 : ATC

Person : 2

Location Of Person.Aircraft : X
Location In Aircraft : Flight Deck
Reporter Organization : Personal
Function.Flight Crew : Pilot Flying
Function.Flight Crew : Trainee
Qualification.Flight Crew : Private
Qualification.Flight Crew : Instrument
Experience.Flight Crew.Total : 155
Experience.Flight Crew.Last 90 Days : 78
Experience.Flight Crew.Type : 1.0
ASRS Report Number.Accession Number : 1840175
Human Factors : Communication Breakdown
Human Factors : Confusion
Human Factors : Troubleshooting
Human Factors : Workload
Human Factors : Situational Awareness
Communication Breakdown.Party1 : Flight Crew
Communication Breakdown.Party2 : ATC

Events

Anomaly.ATC Issue : All Types
Anomaly.Conflict : NMAC
Anomaly.Deviation - Track / Heading : All Types
Anomaly.Deviation / Discrepancy - Procedural : Published Material / Policy
Anomaly.Deviation / Discrepancy - Procedural : Clearance
Detector.Person : Flight Crew
Detector.Person : Air Traffic Control
Miss Distance.Horizontal : 6000
Miss Distance.Vertical : 0
Were Passengers Involved In Event : N
When Detected : In-flight
Result.Flight Crew : Took Evasive Action
Result.Air Traffic Control : Issued Advisory / Alert

Assessments

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

Narrative: 1

During a training flight to become familiarized and train towards a complex endorsement my instructor and I were conducting circuits in the pattern at the airport. The aircraft was unusually busy with 4-5 aircraft in the pattern and ATC was also handling various IFR clearances. We were on our first downwind leg and the ATC told us to extend our downwind a bit for traffic. We read back the instruction and continued on downwind. At the point in the pattern where we usually turn base, ATC told us "[Aircraft X] you are now past traffic in opposite direction, make left traffic pattern at your discretion". I read back the instruction and me and my instructor took that to mean that we could start our left base turn. We checked to visually make sure final was clear. However, unknown to us there was another aircraft 2 miles to the north on a right base leg that started to turn final. About 10 seconds after turning left [my EFB] gave me a traffic alert and I saw I was too close to the other incoming traffic. I did a steep left 180 to avoid coming into the other's aircraft path. Tower also notified us of the traffic alert and also asked us why we were not on downwind. At that point my instructor took over the radios and told ATC the other aircraft was in sight and we were returning to our downwind leg. After we landed we came to the conclusion that ATC miss-spoke and that the call to "make left traffic pattern at your discretion" was meant for a different aircraft.

Narrative: 2

During a training flight to obtain familiarization with complex aircraft I was flying with my instructor and we were flying in the pattern. The airport was unusually busy with 4-5 other airplanes in the pattern and various aircraft requesting IFR clearances on the ground. On our first circuit as we were flying downwind, tower told us to stay on downwind leg and we maintained our downwind heading. About the point in the pattern where we usually turn base ATC called and told us "[Aircraft X] you are now past traffic in opposite direction, make left traffic pattern at your discretion". I read the instruction back and me and my instructor took that to mean we could start our base turn left since final looked clear. However, unknown to us there was an aircraft turning from base (opposite direction) to final about 2 miles north of us. About 10 seconds after we turned base, [the EFB] gave me a traffic alert and I saw that we were too close to the other aircraft after which I started a steep left 180 to avoid traffic. Tower also immediately gave us the alert and asked us why we were not still on downwind. After analyzing the flight, we came to the conclusion that ATC said the wrong call-sign and that the "make left traffic pattern at your discretion" call was meant for a different aircraft.

Synopsis

Flight Instructor and Trainee reported a NMAC while in the traffic pattern. The pilots believed the radio call, from ATC, to begin their base leg was for them. The Instructor and Trainee took evasive action when another aircraft came into view. Later, the pilots realized the transmission was for another aircraft.

Time / Day

Date : 202109

Local Time Of Day : 0601-1200

Place

Locale Reference.ATC Facility : ZMA.ARTCC

State Reference : FL

Aircraft

Reference : X

ATC / Advisory.Center : ZMA

Make Model Name : Any Unknown or Unlisted Aircraft Manufacturer

Crew Size.Number Of Crew : 2

Flight Plan : IFR

Flight Phase : Climb

Flight Phase : Descent

Flight Phase : Cruise

Airspace.Class A : ZMA

Person : 1

Location Of Person.Facility : ZMA.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) : 9

ASRS Report Number.Accession Number : 1839174

Human Factors : Communication Breakdown

Human Factors : Workload

Human Factors : Human-Machine Interface

Communication Breakdown.Party1 : ATC

Communication Breakdown.Party2 : Flight Crew

Person : 2

Location Of Person.Facility : ZMA.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) : 4

ASRS Report Number.Accession Number : 1839164

Human Factors : Communication Breakdown

Human Factors : Human-Machine Interface

Human Factors : Troubleshooting

Human Factors : Workload

Human Factors : Time Pressure

Communication Breakdown.Party1 : ATC

Communication Breakdown.Party2 : Flight Crew

Person : 3

Location Of Person.Facility : ZMA.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) : 4
ASRS Report Number.Accession Number : 1839160
Human Factors : Communication Breakdown
Human Factors : Human-Machine Interface
Human Factors : Troubleshooting
Human Factors : Workload
Human Factors : Time Pressure
Communication Breakdown.Party1 : ATC
Communication Breakdown.Party2 : Flight Crew

Events

Anomaly.ATC Issue : All Types
Anomaly.Ground Event / Encounter : Ground Equipment Issue
Detector.Person : Air Traffic Control
When Detected : In-flight
Result.General : Flight Cancelled / Delayed
Result.Air Traffic Control : Separated Traffic

Assessments

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

Narrative: 1

This type of event happens way too often in the Ocean area of ZMA. I have been at work before working sector 62 or 63 and the same thing has happened to me so I feel compelled to write this report. On Date there was a massive equipment failure. GDT (Radar and comm site) failed along with the GDT frequencies. The ZNY ATOP system failed also, along with the Santo Domingo ADE (Flight Plan Processing) system. Because we are only one source of RADAR coverage and only one site of frequencies at sectors 62/63, when these fail it makes it impossible to provide safe air traffic services to the flying public. The Ocean area is in desperate need of some redundancy as we are constantly in danger of losing our only source of surveillance and usable frequencies. Whether it's because of maintenance or every year during hurricane season. If these type of events happen once it's one too many. Controllers were put in harms way and took drastic measures to maintain some type of order and safety to the flying public. It could've been horrible for everyone involved. Thankfully, there was no need to be on the evening news because of a catastrophic event. We need overlapping sources of surveillance and we need more coverage and back ups for the frequencies. We feel there is a lack of attention in the Ocean area and the flying public isn't aware of the potential danger. If the airspace was over CONUS (Continental United States) we would not be asked to deal with this. We are constantly having to use landlines to speak to foreign facilities because of the failures on the MEVA's [Multi National Network System, Mejoras al Enlace de VOZ del ATS]. Please look into these issues and finally do something.

Narrative: 2

I was working R62 combined with sector 43 and 63. The GTK radar failed around XA: 30Z together with all frequencies at the GTK site. I was unable to communicate with any airplanes under my control initially. I started broadcasting on 121.50 off the ZIN site, and

tried to advise all airplanes on frequency 126.45 and 135.20 that we had lost the radar and the frequencies, followed by an advisory to use extreme caution. There was also a lot of weather in the sector with a majority of airplanes in sector 62 and 63 deviating. I also kept broadcasting on 121.50 informing the airplanes to use extreme caution due to the outages, and to try to reach me on frequency 123.77 (ZIN site). I also tried reaching out to airplanes from the ZIN 126.45 site, but that frequency is very unreliable and I was unable to communicate there initially. After having re-established communications with numerous aircraft, now on frequency 123.77, I was able to take appropriate actions to separate airplanes that needed vertical separation, and re-routed some northbound airplanes to the west towards frequency and radar coverage. I established vertical separation with these airplanes. With the help of surrounding sectors, surrounding facilities and great teamwork in the area, we were able to avoid any disastrous consequences. We need a new backup frequency site that can cover the entirety of sector 62 and 63, and more importantly an additional radar/ADS-B feed that will prevent us from going non-radar. We cannot rely purely on non-radar procedures if we lose the frequency. There needs to be a push to fix these problems! Additionally, we need to make sure the backup frequencies actually work properly. 126.45 at ZIN was working horribly and could not be considered as a reliable backup frequency, especially during times it was most needed.

Narrative: 3

We lost the GTK (Grand Turk) site completely, this includes radar and frequencies. We were busy and had no way of seeing or communicating with any aircraft on sector 62 or 63. When I showed up to my shift the radar/frequencies were out. I plugged in at sector R58 and had to re-route every single aircraft out of Sector 62 and 63. I recommend we continue to push for Space-based ADS-B and install a new back up frequency site, the current equipment that we have is outdated and unreliable, it can go out at any moment.

Synopsis

ZMA Center Controller reported repeated radar and communication site outages in the Oceanic Area create unsafe situations. The reporter states there are no backup systems to the main sites.

Time / Day

Date : 202109

Local Time Of Day : 1801-2400

Place

Locale Reference.ATC Facility : MMFR.ARTCC

State Reference : FO

Altitude.MSL.Single Value : 11000

Environment

Flight Conditions : VMC

Light : Daylight

Aircraft

Reference : X

ATC / Advisory.Center : MMFR

Aircraft Operator : Air Carrier

Make Model Name : Commercial Fixed Wing

Crew Size.Number Of Crew : 2

Operating Under FAR Part : Part 121

Flight Plan : IFR

Mission : Passenger

Nav In Use : FMS Or FMC

Nav In Use : GPS

Flight Phase : Initial Approach

Person : 1

Location Of Person.Aircraft : X

Location In Aircraft : Flight Deck

Reporter Organization : Air Carrier

Function.Flight Crew : Pilot Not Flying

Function.Flight Crew : Captain

Qualification.Flight Crew : Air Transport Pilot (ATP)

Qualification.Flight Crew : Instrument

Qualification.Flight Crew : Multiengine

ASRS Report Number.Accession Number : 1838687

Human Factors : Confusion

Human Factors : Distraction

Human Factors : Situational Awareness

Human Factors : Workload

Human Factors : Communication Breakdown

Communication Breakdown.Party1 : Flight Crew

Communication Breakdown.Party2 : ATC

Person : 2

Location Of Person.Aircraft : X

Location In Aircraft : Flight Deck

Reporter Organization : Air Carrier

Function.Flight Crew : 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 : 1838688
Human Factors : Human-Machine Interface
Human Factors : Situational Awareness
Human Factors : Time Pressure
Human Factors : Workload
Human Factors : Communication Breakdown
Communication Breakdown.Party1 : Flight Crew
Communication Breakdown.Party2 : ATC

Events

Anomaly.ATC Issue : All Types
Anomaly.Deviation / Discrepancy - Procedural : Published Material / Policy
Detector.Person : Flight Crew
When Detected : In-flight
Result.Flight Crew : Requested ATC Assistance / Clarification
Result.Air Traffic Control : Issued New Clearance

Assessments

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

Narrative: 1

We were coming into Morelia. It was night VMC and we carefully set up and briefed the VOR2 to Runway 5. We reviewed it over and over all the way there and were very prepared. We chose the VOR2 approach because the one other time I flew to Mexico they always have us do the approach with the arc, and the VOR2 approach was the one with the arc. Also, we made our best guess as to which approach we would use because there is no way to get the weather there. We sent an ACARS to our Dispatcher and never received an answer. At about 10 miles out, the Approach Controller gave us the VOR1 approach to Runway 5. We told him we were all set up for the VOR2 approach and we wanted to do that one. He told us there was no VOR2 approach to Runway 5. We have it in our JEPPS and told him we had the plate and we were going to do that approach. I explained to him that it was too late to change everything. He kept insisting that there was no VOR2 approach to Runway 5, but I was looking at it. We had gone over it numerous times in cruise and we both knew we were OK on all the altitudes and we both felt the safest thing to do was to proceed with what we planned. We are both unfamiliar, it was night in mountainous terrain, and that is not the time to have a head down making changes in the MCDU. As soon as we made the turn on a left downwind to head towards the Initial Approach Fix, we got the runway in sight and asked for a visual, and were given a visual. Not only do we have an approach that the approach control/tower doesn't have, the names on the plate compared to the MCDU don't match. We reviewed all of them and they all check out DME wise and match the approach plate, but the names (which are letters and numbers) did not match. This is a huge safety concern. If it were IMC it could have ended a lot worse. The only thing that could have helped was to ask approach what runway they were using farther out so we had time to make changes, but I'm not sure they would have been able to tell us.

Narrative: 2

While [enroute] to MMMM (Morelia, Mexico), we briefed and prepared for the VOR DME 2 approach to Runway 5. We were advised by Mexico Center to contact Morelia Approach and to descend and maintain 11,000 feet. Morelia Approach asked us to report 25 nm DME from the airport. At 10 nm DME, Morelia Approach cleared us for the VOR DME 1 to Runway 5. Because of high terrain on all quadrants, night time, unfamiliarity with the terrain/environment, low to the ground condition, we decided to ask the Controller to keep us on the VOR DME 2 instead. The Controller claimed to not have such an approach available for that airport. We told him we had all the information we needed to safely execute the approach in our FMS database. We sighted the runway and asked for a visual approach. We were granted clearance for the visual approach and flew the profile corresponding to the VOR DME 2 approach which we were all set up for. The landing went on uneventfully. In the future, I'll make sure to ask the Controller as soon as able for the approach in use (there was no ATIS at this airport) so that we can set up for the right approach and thus avoid last minute changes which could be fatal specially at unfamiliar/high terrain airports.

Synopsis

Air Carrier flight crew on approach into Morelia, Mexico reported ATC stated there was no VOR 2 Approach to Runway 5 even though the flight crew had the Jeppesen chart for the approach.

Time / Day

Date : 202108

Local Time Of Day : 0601-1200

Place

Locale Reference.ATC Facility : ZZZ.ARTCC

State Reference : US

Relative Position.Angle.Radial : 127

Relative Position.Distance.Nautical Miles : 7

Altitude.MSL.Single Value : 5600

Environment

Flight Conditions : Mixed

Weather Elements / Visibility : Rain

Weather Elements / Visibility.Visibility : 3

Light : Daylight

Ceiling.Single Value : 2000

Aircraft

Reference : X

ATC / Advisory.Center : ZZZ

Aircraft Operator : Personal

Make Model Name : Any Unknown or Unlisted Aircraft Manufacturer

Crew Size.Number Of Crew : 2

Operating Under FAR Part : Part 91

Flight Plan : IFR

Mission : Training

Flight Phase : Initial Approach

Route In Use : Direct

Airspace.Class E : ZZZ

Person : 1

Location Of Person.Aircraft : X

Location In Aircraft : Flight Deck

Reporter Organization : Personal

Function.Flight Crew : Single Pilot

Qualification.Flight Crew : Private

Qualification.Flight Crew : Student

Qualification.Flight Crew : Instrument

Experience.Flight Crew.Total : 336.8

Experience.Flight Crew.Last 90 Days : 7.1

Experience.Flight Crew.Type : 37.1

ASRS Report Number.Accession Number : 1838424

Human Factors : Communication Breakdown

Human Factors : Confusion

Human Factors : Distraction

Human Factors : Situational Awareness

Human Factors : Training / Qualification

Human Factors : Workload

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

Person : 2

Location Of Person.Aircraft : X
Location In Aircraft : Flight Deck
Function.Flight Crew : Pilot Not Flying
Function.Flight Crew : Instructor
Qualification.Flight Crew : Flight Instructor
Qualification.Flight Crew : Commercial
Qualification.Flight Crew : Instrument
Experience.Flight Crew.Total : 328.7
Experience.Flight Crew.Last 90 Days : 58.7
Experience.Flight Crew.Type : 1.3
ASRS Report Number.Accession Number : 1838454
Human Factors : Situational Awareness
Human Factors : Communication Breakdown
Communication Breakdown.Party1 : Flight Crew
Communication Breakdown.Party2 : ATC

Events

Anomaly.Deviation - Altitude : Excursion From Assigned Altitude
Anomaly.Deviation - Track / Heading : All Types
Anomaly.Deviation / Discrepancy - Procedural : Clearance
Anomaly.Inflight Event / Encounter : CFTT / CFIT
Detector.Automation : Air Traffic Control
Detector.Person : Flight Crew
Detector.Person : Air Traffic Control
When Detected : In-flight
Result.Flight Crew : Requested ATC Assistance / Clarification
Result.Flight Crew : Executed Go Around / Missed Approach
Result.Flight Crew : Became Reoriented
Result.Air Traffic Control : Provided Assistance
Result.Air Traffic Control : Issued New Clearance
Result.Air Traffic Control : Issued Advisory / Alert

Assessments

Contributing Factors / Situations : Chart Or Publication
Contributing Factors / Situations : Environment - Non Weather Related
Contributing Factors / Situations : Software and Automation
Contributing Factors / Situations : Procedure
Contributing Factors / Situations : Human Factors
Primary Problem : Human Factors

Narrative: 1

This was the first flight to work on regaining my instrument proficiency after an over 30 year layoff. I have about 12 hours of simulator time in the past several months, but this was going to be my first flight under the hood, mixed with some actual IMC in three decades and my first instrument time in my aircraft. Additionally, my aircraft has recently had an all new Garmin GPS MFD, CDI and autopilot system installed. I've practiced with the Garmin software simulator and watched training videos, but only used my specific

equipment on two brief VFR flights. My instructor seemed generally familiar with my Garmin equipment but may have been less familiar with the details of things like loading and activating approaches. By agreement with my instructor, I used the flight director but not the autopilot on this flight. Two days before this flight I spent two hours with my instructor reviewing ground training material (e.g., lost comm. procedures and reading IFR charts). At the conclusion of that session we decided to plan a trip from ZZZ to ZZZ1, intending to fly an LPV approach to DA, execute the published missed approach and then return to ZZZ, completing an approach and landing. I spent a fair amount of time studying the planned flight, particularly the available RNAV approach and its published missed approach procedure. However, the morning of our flight I arrived at the FBO and spoke with my instructor. He was concerned that some convective activity may be morning our direction, so we agreed to change our plans and fly to ZZZ2 instead. He instructed me to file a round-robin flight to ZZZ2 via ZZZZZ (an IAF/IF for the approach we intended to make into ZZZ2) and ZZZZZ1 (an IF/IAF for the approach we wanted back into ZZZ). I filed via ForeFlight and received an email that advised us to expect to be cleared as filed. I programmed our GPS with the expected route. We called for our clearance from ZZZ Center by telephone and departed. At 500 feet, per my instructor's instructions, I turned direct ZZZZZ and contacted ZZZ Center and continued climbing to our assigned altitude, 7,000 feet. Soon after reaching 7,000 feet we were told to cross ZZZZZ at or above 6,000 feet (we may also have been cleared for the approach at this point, but I don't remember for sure). After confirming with my instructor, I set my altitude select to 6,000 feet and began a descent. As we descended my instructor cautioned me that we did not want to descend below 6,000 feet and then asked a question about our planned approach and I went to look at the plate in ForeFlight I managed to close the plate accidentally. As I bobbled with my tablet, I lost track of my altitude. At roughly the same time, I noticed I was too low, my instructor told me I needed to climb and Center called on the radio with an altitude alert. I immediately started a climb to 6,000 feet and then acknowledged Center's alert. Sometime around when we got back to 6,000 feet Center cleared us (possibly for the second time) for the RNAV Y Runway XX approach, again instructing us to cross ZZZZZ at or above 6,000 feet. I repeated the clearance, accidentally saying Runway XY. My instructor corrected me and I corrected myself to Center. I believe this is the point my instructor took over communications for the rest of the flight. As we approached ZZZZZ my instructor told me to turn right to intercept final. I did so and tracked lateral and vertical guidance, struggling with the vertical, in particular. At 1,700 feet, a little above the published DA, my instructor declared a missed approach and our intention to return to ZZZ. Tower acknowledged and told us to contact Center when we climbed past an altitude (I believe 5,000 feet), which we did. As we climbed towards 7,000 feet my instructor told me to fly direct ZZZZZ1 and then amended that to ZZZZZ2. During this he was programming something into the GPS and making it difficult to track the CDI so I just tried to maintain my heading and climb for the moment. I believe he had an exchange or two with Center in this time. Soon the GPS was programmed for ZZZ via ZZZZZ1 and I was flying that route. On the way back, we were asked to copy a number and contact Center on the ground. Subsequently, we were cleared for the RNAV RWY YY approach into ZZZ. We executed the approach and circled to land on RWY YY without further incident. When we contacted Center we were informed of three possible Pilot Deviations: The altitude excursion prior to ZZZZZ. Failure to do a Procedure Turn (PT) before turning on final at ZZZ2. Not mentioned by ATC, but we may have made the same error coming back to ZZZ. Failure to fly the published missed out of ZZZ2. Lessons learned. This flight was likely overly ambitious. We should have spent time getting me used to flying my airplane under the hood maintaining airspeed, course, altitude, making heading and altitude changes, etc. Instead of jumping to a short cross country with two approaches in MVFR or to IMC conditions. It likely would have been wiser to scrub this flight rather than change the intended plan at the last minute. Given how long it has been since I flew in simulated

or actual instrument conditions, a radical plan change at the last minute increased my workload and stress level beyond my current ability to compensate. I should not be so complacent. I flew under conditions that I would not have were I solo, even if I could have dodged around the IMC. I should not have divided my attention during the descent prior to ZZZZZ. Once there, I should probably have used the autopilot, or at least requested permission from my instructor, before messing around trying to get the approach plate back up. I could have requested delay vectors or, ironically, flown the published hold, if I needed more time. I should have questioned my instructor more about the PT/hold-in-lieu. It showed up on the moving map. More generally, before we got into a position where we had to fly it, my instructor and I should have briefed the approaches into ZZZ1, ZZZ, and any other approaches we might have had to fly, making sure up front we knew what to expect, including missed approach procedures.

Narrative: 2

While conducting an IPC with my student who has not flown anything instrument related in 30 plus years were flying on a IFR flight plan from ZZZ to ZZZ via ZZZ2 for a practice approach on the RNAV. Although the weather conditions were not perfect, they were VFR with constant visibility to the ground. While en-route and approximately halfway between ZZZ and ZZZ2, ZZZ Center cleared us for the RNAV Y XX into ZZZ2 telling us to cross over ZZZZZ at or above 6,000 feet. My student read this back as "Cleared RNAV XY" not XX. I corrected my student but Center did not. I have found this to be common as it could be heard as XY. While continuing to ZZZZZ, my student struggled to maintain altitude and was continually descending. I was advising him to watch his altitude and regain the 6,000 foot assigned clearance ATC gave us. He continued to descend lower and lower. I was struggling to get control of the airplane as he insisted, he had the situation control and guarded the throttle and stick preventing me from assisting. It should be noted that my student is a larger gentleman and I am a smaller person relatively speaking. His hand was guarding the single throttle tightly not letting go and I was struggling to move in the cockpit of the small aircraft to gain control of the airplane. By this time it was too late and ATC gave us the "low altitude" alert over the radio. As ATC was contacting us I was forcing myself to add throttle and pull the stick back to regain the altitude lost abruptly and dramatically. This was deviation 1. The lesson here to myself, as somewhat new CFII with lots of experience showing people how to fly in VMC but not on an instrument flight plan, is to not let the students over power you. Seeing as this was a smaller airplane with dual controls although limited access, it is certainly a mistake I will not be making again. Further on in the flight, while approaching ZZZZZ and after getting the clearance to fly the RNAV Y XX into ZZZ2, my student and I discussed how to enter the approach at XXXXX seeing as it was an IAP. We both agreed that turning directly inbound to the final approach course of XXX was the correct choice and not flying the procedure turn. I personally settled on the choice for 3 reasons. Because in all of my experience flying, whenever ATC wants me to fly a procedure turn, they specifically ask or tell me to do so. Seeing as no notification was received on our end, the led me to believe a straight in turn was desired. This includes flights with numerous other CFII's, other pilots and even DPEs. I have actually asked this question to numerous CFII's who taught me and all have agreed with the decision I made before this incident occurred. From our perspective, the turn was approximately 90 degrees and was by no means unsafe or reckless in any manner to make that turn. We were on the correct side to make a straight in approach and procedure turn would have been more unnecessary all things considering. The Garmin GNC 355 with an up to date database, said to make that turn. Not saying I am one of them, but I know several pilots who will do anything their GPS tells them to do. As I do not think this is wise, coupled with the previous two reasons, it cemented my choice to make that turn. Every approach, even GPS approaches like an RNAV should be backed up with the proper approach plates and proper procedure. However, if the GPS unit in the aircraft is

the one displaying guidance and if it is giving information you truly do believe to be correct, it is hard to ignore it. That was deviation 2. While it is easy for me to say that this deviation was 100% not my fault, after going back and looking at resources like Flightaware and our ground track on Foreflight, it can be seen that the turn was more than 90 degrees and telling us that maybe something was not right. In hindsight and now be able to look at the regulations closer (AIM 5-4-9), we were supposed to fly the procedure turn. However, after watching over another CFII giving instruction from the back seat on the following day, this exact same thing happened on the RNAV [approach] into ZZZ3. They were cleared for the approach via ZZZZZ3 and no "procedure straight in" instructions were given. Approach did not mention anything to them as if it never happened and is an acceptable procedure. Overall this error in flying the approach is on me. Plain and simple, I cannot blame anyone else for it. With that being said I know for a fact that I have been told by several other instructors and seen it done numerous other times with ATC intervention or no repercussions what so ever. A good solution to this problem would be to increase communication between pilots ATC to ensure that they are both on the same page when it comes to entering a approach at the angle we did. I should have contacted them and asked to clarify. That is on me. After crossing over ZZZZZ and continuing the approach everything went flawlessly. I told my student to relax, and to fly the approach as he has done in the past. Somewhere around the final approach fix, ZZZ approach handed us off to ZZZ. In this transmitting I specifically remember him saying "talk to you soon" implying that we are going missed and he will pick us up on the missed approach. This would make sense as this is how we filed and we were cleared "as filled" when we took off out of ZZZ. After being handed off to ZZZ2 tower and continuing the approach, we hit the minimums for our training exercise and flew out on published missed approach. It should be noted that we were never given any specific missed approach clearance implying that we fly the published missed. While going missed, we informed ZZZ2 tower and they said passing though 3,500 feet to contact ZZZ Center. When we came through 3,500 feet, we contacted center and they asked us if we intended to go back to ZZZ to which we said yes. In our reply I recall asking them if we are cleared direct ZZZZZ1 to which I heard a yes from center and responded by saying "cleared direct ZZZZZ1". As we started to fly direct to ZZZZZ1, Center came back and told us to fly the published missed. We re-scrambled our radios/nav at that time and did as instructed. This is when I realized that something had happened. This was deviation 3. The lesson here is that there was a breakdown in communication on what was expected from us on the missed approach. Seeing as we filed from ZZZ-ZZZZZ-ZZZ2-ZZZZZ1-ZZZ and we cleared for this, the idea of proceeding to ZZZZZ1 was fresh in our mind so when we heard that "ready to go back to ZZZ" call, we asked for direct ZZZZZ1. What we heard, or thought we heard was obviously different than what we were cleared for. For this, I am equally in the wrong as everybody else involved. More clarification once again should have been made between our aircraft and the controller. To offer a little bit more context and a possible explanation for some of these events, I would like to back track and set the stage before the flight. Remember, this is not an excuse, only a possible explanation. After we got in the airplane and taxied out, did our run up, we were ready to get our IFR clearance. Note ZZZ is an uncontrolled airport. We tried for a few minutes on the ground to get a hold of ZZZ Center on XXX.XX. This almost always works and we can get the clearance and copy it down with easy and proceed as directed. This time, there was an issue where it appeared Center could hear us but we could not hear them. We tried several times then gave up and called the clearance delivery phone number. They informed us that they could hear us and to try again, so we hung up and tried again. We did this to no avail and could still not get them on the radio. We then called the number again and got our clearance that way. What this means to me is there was some sort of radio issues that were happening possibly before we even took off. Seeing as clearance delivery over the phone said Center could hear us, this was negated especially as the weather at this time was MVFR-VFR, and we proceeded with the

flight. Looking back this could have been the root for some of the issues. What if some of our messages were not getting to center during the procedure turn issue or the missed approach instruction issues? The weather was hazy and the atmosphere was polluted immensely. Could this have been a part of the issue? If I am remembering events incorrectly, a different way or in a different order, that is totally possible. I am only human. But one thing I remember for sure from this entire flight was the lack of clear communication between our aircraft and Center. I make mistakes and I am more than happy to and willing to own up to those. But I can say with confidence that as a CFI, flying with a student who over powers the airplane and poor communication when ATC who thinks you are doing something and not confirming does not help. For me, the overall take away points from this flight is to really ensure both pilots have 100% clear and total access to the controls. This means as a CFI that you need to make sure your student knows when to listen and correct the mistakes you are pointing out OR give up flight controls to the CFI to correct them. Also, clarifying any and all procedures. Communication was poor and both parties were assuming something different 2 different times and neither clarified effectively. With that, I am glad nobody got hurt and it was all in VMC conditions executed safely. I really do appreciate the professionalism of ZZZ Center that day and at the very least pointing out or mistakes. Happy Flying.

Synopsis

Flight Instructor and student reported the student deviated from assigned altitude resulting in a low altitude alert from ATC, failed to perform the procedure turn on approaches, did not fly the published missed approach procedure and the student would not relinquish aircraft controls to the Instructor.

Time / Day

Date : 202109

Local Time Of Day : 1201-1800

Place

Locale Reference.ATC Facility : ZJX.ARTCC

State Reference : FL

Altitude.MSL.Single Value : 27000

Environment

Flight Conditions : VMC

Aircraft

Reference : X

ATC / Advisory.Center : ZJX

Aircraft Operator : Corporate

Make Model Name : Light Transport

Crew Size.Number Of Crew : 2

Operating Under FAR Part : Part 91

Flight Plan : IFR

Mission : Passenger

Flight Phase : Descent

Route In Use.STAR : MAATY1

Airspace.Class E : ZJX

Person : 1

Location Of Person.Aircraft : X

Location In Aircraft : Flight Deck

Reporter Organization : Corporate

Function.Flight Crew : Pilot Flying

Function.Flight Crew : Captain

Qualification.Flight Crew : Flight Instructor

Qualification.Flight Crew : Air Transport Pilot (ATP)

Qualification.Flight Crew : Instrument

Qualification.Flight Crew : Multiengine

Experience.Flight Crew.Total : 2800

Experience.Flight Crew.Last 90 Days : 60

Experience.Flight Crew.Type : 440

ASRS Report Number.Accession Number : 1837293

Human Factors : Confusion

Human Factors : Human-Machine Interface

Human Factors : Situational Awareness

Human Factors : Communication Breakdown

Communication Breakdown.Party1 : Flight Crew

Communication Breakdown.Party2 : ATC

Person : 2

Location Of Person.Aircraft : X

Location In Aircraft : Flight Deck

Reporter Organization : Corporate
Function.Flight Crew : Pilot Not Flying
Qualification.Flight Crew : Multiengine
Qualification.Flight Crew : Air Transport Pilot (ATP)
Qualification.Flight Crew : Flight Instructor
Qualification.Flight Crew : Instrument
Experience.Flight Crew.Total : 7200
Experience.Flight Crew.Last 90 Days : 80
Experience.Flight Crew.Type : 420
ASRS Report Number.Accession Number : 1837489
Human Factors : Communication Breakdown
Human Factors : Human-Machine Interface
Human Factors : Situational Awareness
Human Factors : Confusion
Communication Breakdown.Party1 : Flight Crew
Communication Breakdown.Party2 : ATC

Events

Anomaly.ATC Issue : All Types
Anomaly.Deviation - Altitude : Crossing Restriction Not Met
Anomaly.Deviation - Altitude : Undershoot
Anomaly.Deviation - Track / Heading : All Types
Anomaly.Deviation / Discrepancy - Procedural : Published Material / Policy
Anomaly.Deviation / Discrepancy - Procedural : Clearance
Detector.Person : Air Traffic Control
When Detected : In-flight
Result.Flight Crew : Became Reoriented

Assessments

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

Narrative: 1

We were proceeding direct to HEVVN when ATC instructed us to cross LEGGT at FL270. The RNAV arrival had already been loaded in the FMS and briefed with the altitude crossing restrictions confirmed in the flight plan. FL270 was set and confirmed in the Altitude Preselect and the VNAV was armed. The airplane intercepted the VPATH and we were given a frequency change. When the Pilot Monitoring (PM) checked in with the controller advising we were FL28.5 descending to cross LEGGT at FL270, the controller responded that we were past LEGGT and to confirm our crossing restriction. The PM advised ATC we had an issue/conflict with our FMS and ATC cleared us to expedite a descent to FL190. The rest of the flight was completed without further event. Reflecting back on the event, I think there are several factors that contributed. First, the MAATY1 RNAV Arrival is one of the new arrivals as part of the greater Florida Metroplex airspace revamp. However, the first two fixes in our flight plan on the arrival, HEVVN and LEGGT, are the same first two fixes on the FOOXX5 arrival. Up until the last month, we had routinely flown the FOOXX5 arrival into TPA numerous times each month for the last several years. From my perspective, one of the key important differences between the FOOXX5 and MAATY1 arrivals is that all the altitudes listed in the FOOXX5 are "expect", while in the MAATY1 they are published as mandatory (without "expect"). Another key

difference is that in the FOOXX5, the procedure calls for a crossing restriction "AT" LEGGT at FL270...The new MAATY1 procedure calls for a crossing restriction "AT OR ABOVE" LEGGT at FL270. When previously loading the FOOXX5 arrival into our FMS, we had to manually enter the crossing altitudes into the flight plan since all of the altitudes in the procedure were "expect". When loading the MAATY1 arrival into our FMS, all of the altitude restrictions are automatically loaded into the flight plan. So, today when we loaded the MAATY1 into the FMS, both the PM and myself saw the "at or above FL270" at LEGGT that was automatically loaded in the flight plan when the procedure was selected. We both mistook that as crossing "AT FL270". Hence, when our VNAV VPATH was intercepted, it had us crossing LEGGT "at or above FL270" as properly depicted in the published procedure - despite our ATC clearance to cross LEGGT "AT" FL270. In short summary the factors contributing to this event were: 1) New MAATY1 RNAV ARRIVAL in use with common fixes from FOOXX5. 2) Same altitude with difference constraints between MAATY1/FOOXX5 ("Expect" FL270 "AT" LEGGT in FOOXX5 vs. published "AT OR ABOVE" FL270 at LEGGT in MAATY1). 3) FMS programming error in FMS VNAV/lack of close cross-checking altitude constraints vs. ATC clearance by crew. 4) ATC issuing a crossing restriction at a fix (LEGGT "AT" FL270) on the assigned RNAV arrival that differed from the STAR published restriction (LEGGT "AT or ABOVE" FL270) without emphasizing the change. To prevent this recurrence, we as a crew will be much more diligent in cross-checking altitudes in the FMS flight plan whenever crossing restrictions are issued by ATC, specifically when differentiating between crossing "AT" vs "AT or ABOVE". We will also query ATC if there are any questions when the clearance issued by ATC contradicts published altitudes or crossing restrictions in a procedure. I also think it would be beneficial for all involved if there was a way for ATC to emphasize crossing altitude instructions whenever they differ from published altitudes or crossing restrictions in the SID/STAR. I think something along the lines of "descend via MAATY1 except cross LEGGT AT FL270" may have helped in this scenario, though it is possible that may be too redundant or possibly be cause for additional confusion for other crews/controllers. It comes down finding a way to differentiate between the assigned clearance of crossing a fix "AT" compared to the published restriction "AT or ABOVE".

Narrative: 2

While flying the MAATY1 arrival yesterday into TPA, we were given an altitude restrictions to "cross LEGGT at FL270." 27,000 was entered into the altitude preselector and FL270 was already pre-programmed into the FMS, as this is the altitude shown on the arrival. VNAV on the auto-pilot was armed, and we intercepted the VPATH to FL270. We were given a frequency change and when I checked in I said that we were "28,500 descending to 27,000 at LEGGT". The controller said that we had already crossed LEGGT and asked what our previously assigned altitude restriction was. I saw that we were on the Glide Path to 27,000 and wasn't sure immediately why we hadn't arrived at 27,000 at LEGGT. I said that "we were assigned 27,000 at LEGGT and that we were having an FMS issue." The detail that the crew failed to notice was that the FL270 is an AT OR ABOVE altitude as depicted on the arrival plate and as pre-programmed in the FMS. We used the VNAV mode on the autopilot and the display on the G5000 appeared to be bringing us to 27,000 at LEGGT. We were then cleared to FL190 and told to expedite, which we did. Later we were given MAATY at 13,000 and 250kts and the FMS functioned as expected. After taking some time to diagnose the issue, we learned that the FMS was pre-programmed to cross LEGGT AT OR ABOVE FL270. Not to cross AT FL270 as instructed. After thoroughly debriefing the flight, there are multiple factors as to why I believe this event occurred. 1) The implementation of the new arrivals from the Florida Metroplex and the similarities (and subtle differences) between the MAATY1 and the FOOXX5 arrivals. 2) Even though the altitudes in the FMS were briefed, the crew failed to notice the altitude constraint difference between the pre-loaded altitudes in the FMS and the clearance received from

ATC. 3) ATC used an altitude restriction from the FOOXX5 as an altitude restriction on the MAATY1. 4) ATC did not emphasize the difference between the clearance and the published arrival. 1) The pilots have been flying the FOOXX5 arrival regularly for many years. The FOOXX5 says to EXPECT LEGGT at FL270, and it was very common for the controllers to issue this restriction. We would always enter FL270 AT LEGGT manually into the FMS. By entering the altitude manually, we always create an "AT" altitude. Since the new procedure shows the same altitude at the same point I think that it is easy for the crew to assume that the FMS will cross LEGGT at FL270, just as it always has. However, "AT OR ABOVE" FL270 is now pre-programmed in the FMS and the auto-pilot will not cross LEGGT at FL270 like it did previously. It now requires re-entering the altitude into the FMS as an "AT" altitude if the controller issues the "cross LEGGT "AT" FL270" like they have done for many years. 2) To prevent this from happening in the future, the crew must be sure to cross-check the constraints ("AT OR ABOVE" vs "AT" altitudes) for the arrival. The crew must also be aware that ATC altitude restrictions MAY NOT coincide with the published arrival procedures and must be sure to cross-check each clearance. 3) There are similarities between the FOOXX5 and the MAATY1 in that they use some of the same fixes (HEVVN and LEGGT). The published altitudes at LEGGT are subtly different. FOOXX5 publishes expect LEGGT "AT" FL270 and MAATY1 publishes cross LEGGT "AT OR ABOVE" FL270. The controller used the altitude constraint from the FOOXX5 as opposed to the altitude constraint on the MAATY1. The controller that issued "cross LEGGT at FL270" may have issued that clearance hundreds of times in his career from the FOOXX5 and may not think anything of it, even though this clearance differs from the published altitude in the MAATY1. With MAATY1 programmed, the FMS in our aircraft schedules the crossing of LEGGT somewhere between FL280 and FL290 since it is projecting a 3 degree glidepath to GOJOE between FL260 and FL210 and MAATY AT 13,000. To make our FMS cross LEGGT "AT" FL270, it requires reprogramming the altitude restriction in the FMS. This is easily missed since the altitude displayed next to LEGGT is FL270 within the FMS. 4) If a clearance differs from the published arrival procedure, it would be helpful if ATC would emphasize that difference. For example "Descend via the MAATY1 EXCEPT cross LEGGT at FL270." Going forward the crew will also be sure to question ATC when a clearance does not match a published procedure.

Synopsis

Flight crew reported they failed to meet a crossing restriction while descending on a new arrival into TPA after misinterpreting the crossing restrictions and ATC clearance. Issue was further complicated by the use of the same fixes across multiple arrivals.

Time / Day

Date : 202109

Local Time Of Day : 0601-1200

Place

Locale Reference.ATC Facility : ZZZ.ARTCC

State Reference : US

Altitude.MSL.Single Value : 27500

Environment

Flight Conditions : VMC

Light : Daylight

Ceiling : CLR

Aircraft : 1

Reference : X

ATC / Advisory.Center : ZZZ

Aircraft Operator : Air Taxi

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

Crew Size.Number Of Crew : 2

Operating Under FAR Part : Part 135

Flight Plan : IFR

Mission : Passenger

Nav In Use : FMS Or FMC

Nav In Use : GPS

Flight Phase : Climb

Route In Use : Direct

Airspace.Class A : ZZZ

Aircraft : 2

Reference : Y

ATC / Advisory.Center : ZZZ

Make Model Name : Any Unknown or Unlisted Aircraft Manufacturer

Airspace.Class A : ZZZ

Person : 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 : Flight Instructor

Qualification.Flight Crew : Multiengine

Qualification.Flight Crew : Instrument

Qualification.Flight Crew : Air Transport Pilot (ATP)

Experience.Flight Crew.Total : 8400

Experience.Flight Crew.Last 90 Days : 120

Experience.Flight Crew.Type : 1200

ASRS Report Number.Accession Number : 1836808

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

Person : 2

Location Of Person.Aircraft : X
Location In Aircraft : Flight Deck
Reporter Organization : Air Taxi
Function.Flight Crew : Pilot Not Flying
Function.Flight Crew : First Officer
Qualification.Flight Crew : Instrument
Qualification.Flight Crew : Multiengine
Qualification.Flight Crew : Air Transport Pilot (ATP)
Experience.Flight Crew.Total : 1900
Experience.Flight Crew.Last 90 Days : 200
Experience.Flight Crew.Type : 150
ASRS Report Number.Accession Number : 1836822
Human Factors : Communication Breakdown
Human Factors : Situational Awareness
Human Factors : Time Pressure
Human Factors : Workload
Human Factors : Confusion
Communication Breakdown.Party1 : Flight Crew
Communication Breakdown.Party2 : ATC

Events

Anomaly.ATC Issue : All Types
Anomaly.Conflict : NMAC
Anomaly.Deviation - Altitude : Overshoot
Anomaly.Deviation - Altitude : Crossing Restriction Not Met
Anomaly.Deviation / Discrepancy - Procedural : Clearance
Detector.Automation : Air Traffic Control
Detector.Person : Air Traffic Control
Miss Distance.Horizontal : 20
Miss Distance.Vertical : 500
Were Passengers Involved In Event : N
When Detected : In-flight
Result.Flight Crew : Took Evasive Action
Result.Air Traffic Control : Issued Advisory / Alert

Assessments

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

Narrative: 1

Talking to ZZZ Center. Was assigned, what we thought, was an altitude of FL370. We read back FL370. ATC specialist actually assigned us FL270, but didn't correct our read back. A few minutes after the altitude assignment, ATC then advised us of crossing traffic at

FL280. Upon us passing FL275 MSL, ATC queried if we were level at FL270. We advised ATC that we were climbing to our assigned altitude of FL370. ATC then clarified our clearance of FL270. Autopilot was disconnected and a return to FL270 was commenced as the other aircraft was given a heading assignment to further relieve the conflict. At no point did we receive a TA or RA, nor did the conflicting traffic report either.

Narrative: 2

[Narrative contained no additional information.]

Synopsis

Air taxi flight crew reported climbing through their assigned altitude. On read-back to ATC the pilots were not corrected that their stated altitude was incorrect. There was no RA.

Time / Day

Date : 202107

Local Time Of Day : 0601-1200

Place

Locale Reference.ATC Facility : ZZZ.TRACON

State Reference : US

Altitude.MSL.Single Value : 10000

Environment

Flight Conditions : VMC

Aircraft : 1

Reference : X

Aircraft Operator : Air Carrier

Make Model Name : B777 Undifferentiated or Other Model

Crew Size.Number Of Crew : 2

Operating Under FAR Part : Part 121

Flight Plan : IFR

Mission : Passenger

Nav In Use : GPS

Nav In Use : FMS Or FMC

Flight Phase : Climb

Route In Use.SID : ZZZZZ

Aircraft : 2

Reference : Y

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

Person : 1

Location Of Person.Aircraft : X

Location In Aircraft : Flight Deck

Reporter Organization : Air Carrier

Function.Flight Crew : Captain

Function.Flight Crew : Pilot Flying

Qualification.Flight Crew : Air Transport Pilot (ATP)

Qualification.Flight Crew : Instrument

Qualification.Flight Crew : Multiengine

Experience.Flight Crew.Total : 17407

Experience.Flight Crew.Last 90 Days : 83

Experience.Flight Crew.Type : 48

ASRS Report Number.Accession Number : 1826339

Human Factors : Communication Breakdown

Human Factors : Time Pressure

Human Factors : Workload

Human Factors : Distraction

Communication Breakdown.Party1 : Flight Crew

Communication Breakdown.Party2 : ATC

Person : 2

Location Of Person.Aircraft : X
Location In Aircraft : Flight Deck
Reporter Organization : Air Carrier
Function.Flight Crew : Pilot Not Flying
Function.Flight Crew : First Officer
Qualification.Flight Crew : Instrument
Qualification.Flight Crew : Multiengine
Qualification.Flight Crew : Air Transport Pilot (ATP)
Experience.Flight Crew.Total : 7297
Experience.Flight Crew.Last 90 Days : 53
Experience.Flight Crew.Type : 449
ASRS Report Number.Accession Number : 1826643
Human Factors : Communication Breakdown
Human Factors : Situational Awareness
Human Factors : Time Pressure
Human Factors : Workload
Human Factors : Distraction
Communication Breakdown.Party1 : Flight Crew
Communication Breakdown.Party2 : ATC

Events

Anomaly.ATC Issue : All Types
Anomaly.Conflict : NMAC
Anomaly.Deviation - Altitude : Excursion From Assigned Altitude
Anomaly.Deviation / Discrepancy - Procedural : Clearance
Detector.Automation : Aircraft TA
Detector.Automation : Aircraft RA
Detector.Automation : Air Traffic Control
Detector.Person : Flight Crew
Miss Distance.Vertical : 490
Were Passengers Involved In Event : N
When Detected : In-flight
Result.Flight Crew : FLC complied w / Automation / Advisory
Result.Flight Crew : Took Evasive Action

Assessments

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

Narrative: 1

The Captain was hand flying the aircraft on the ZZZZZ RNAV Departure off of Runway XXR from ZZZ, climbing to FL 190. ATC issued our flight an intermediate level off altitude of 10,000 ft. Approaching 10,000 ft. and about to level off, our flight received a TCAS RA to "Maintain Vertical Speed," due to an aircraft that appeared to be descending towards our aircraft and crossing our flight path. The Captain complied with and performed the TCAS RA maneuver. Then, the ATC Controller and what sounded like an ATC Supervisor intervening, issued instructions to the other aircraft to turn and climb immediately. At this point, our flight's TCAS RA changed from a "Maintain Vertical Speed" to a "Descend Now." The Captain complied with the changing "Descend Now" TCAS RA maneuver. Once the radio communications cleared, the First Officer was able to inform ATC of our TCAS RA. As

a result of our TCAS RA maneuvering and the ATC issued turn and climb instructions to the other aircraft, the other aircraft appeared to pass our aircraft forward, above and to the right at less than 500 ft. Our flight then continued to ZZZ1 without further incidence.

Narrative: 2

Departing ZZZ on the ZZZZZ ZZZZZ1 transition, we were initially cleared to FL190. Passing 8,800 ft., we were told to stop our climb at 10000 ft. The Captain was hand flying. At 9,800 ft., we received a "maintain vertical speed" in a climb RA. ATC gave the conflicting aircraft, a light twin, an immediate climb and turn to the east. The traffic was pointed out to us and I responded, "Roger. Aircraft X TCAS climb." I then spotted the aircraft (conditions were VMC) but was unable to tell ATC due to radio congestion. As the conflicting aircraft began to climb away from us, we received a course reversal to "DESCEND. DESCEND NOW" RA. The Captain followed the guidance. ATC gave us a frequency change and I read back the clearance and added "TCAS descent" and changed frequencies. I estimate we passed within 500 ft. as the aircraft passed above us and to the right, turning away from us. The flight continued without incident to ZZZ1.

Synopsis

777 Flight Crew reported an NMAC during the departure climb

Time / Day

Date : 202107

Local Time Of Day : 1201-1800

Place

Locale Reference.ATC Facility : ZZZ.TRACON

State Reference : US

Altitude.MSL.Single Value : 5000

Environment

Flight Conditions : VMC

Weather Elements / Visibility.Visibility : 50

Light : Daylight

Ceiling.Single Value : 0

Aircraft : 1

Reference : X

ATC / Advisory.TRACON : ZZZ12

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 : Training

Flight Phase : Descent

Route In Use : Vectors

Airspace.Class E : ZZZ

Aircraft : 2

Reference : Y

ATC / Advisory.TRACON : ZZZ

Aircraft Operator : Personal

Make Model Name : Cessna 210 Centurion / Turbo Centurion 210C, 210D

Crew Size.Number Of Crew : 1

Operating Under FAR Part : Part 91

Flight Plan : IFR

Mission : Personal

Flight Phase : Descent

Airspace.Class E : ZZZ

Person : 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

Experience.Flight Crew.Total : 182

Experience.Flight Crew.Last 90 Days : 38
Experience.Flight Crew.Type : 100
ASRS Report Number.Accession Number : 1826224
Human Factors : Communication Breakdown
Human Factors : Human-Machine Interface
Human Factors : Confusion
Communication Breakdown.Party1 : Flight Crew
Communication Breakdown.Party2 : ATC

Person : 2

Location Of Person.Facility : ZZZ.TRACON
Reporter Organization : Government
Function.Air Traffic Control : Approach
Qualification.Air Traffic Control : Fully Certified
Experience.Air Traffic Control.Time Certified In Pos 1 (yrs) : 7
ASRS Report Number.Accession Number : 1825631
Human Factors : Communication Breakdown
Human Factors : Situational Awareness
Human Factors : Confusion
Communication Breakdown.Party1 : ATC
Communication Breakdown.Party2 : ATC

Events

Anomaly.ATC Issue : All Types
Anomaly.Conflict : NMAC
Detector.Person : Flight Crew
Detector.Person : Air Traffic Control
Miss Distance.Vertical : 300
When Detected : In-flight
Result.Flight Crew : Took Evasive Action
Result.Flight Crew : Requested ATC Assistance / Clarification
Result.Air Traffic Control : Issued New Clearance
Result.Air Traffic Control : Issued Advisory / Alert

Assessments

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

Narrative: 1

Approx 5 to 10 miles west of ZZZ, I nearly had a mid-air with another aircraft while under ATC control. I was on an IFR flight plan but needed to return to ZZZ1 due to aircraft issue, and the controller cleared me to descend from 8000 feet to 5500 feet while asking me to turn Left, Heading 270. I continued to descend as the controller directed me next to turn Right, Heading 360. I did and was given a traffic point out to an aircraft flying slightly northwest, closing in on me. I acknowledged I saw the traffic on ADS-B. The controller asked if I could climb to 7,000 feet. After one attempt, I told him unable and watched as the other aircraft's ADS-B track closed in closely on me with the range in our altitudes decreasing. Finally when it appeared the tracks would soon be on top of each other, I turned to the right, then requested a turn to the right. The controller approved, then told the other aircraft to immediately turn left. Before pulling away, it appeared the other aircraft had 300 feet of vertical separation from me.

Narrative: 2

During the position relief briefing Aircraft X reported aircraft issues and requested to return back to ZZZ. The relieved controller turned Aircraft X left heading 230 and descended them to 5,000 feet. The relieved controller finished the briefing and I took over the position. Aircraft Y was roughly 10 miles south-southwest of Aircraft X and direct ZZZ1 at 7,000 ft. I descended Aircraft Y to 5,000 feet and switched him to ZZZ. The 2 targets converged and came within less than 2 miles of each other around 7,000 ft. I missed the other controller assigning 5,000 to Aircraft Y. Maybe I should have waited to take the position until the relieved controller finished helping Aircraft X work through their aircraft equipment situation.

Synopsis

TRACON Controller and a pilot reported a NMAC due to the Controller not being aware the Controller they had just relieved had descended another aircraft.

Time / Day

Date : 202107

Local Time Of Day : 1801-2400

Place

Locale Reference.ATC Facility : MMFR.ARTCC

State Reference : FO

Altitude.MSL.Single Value : 7600

Environment

Flight Conditions : VMC

Aircraft

Reference : X

ATC / Advisory.Center : MMFR

Aircraft Operator : Air Carrier

Make Model Name : Commercial Fixed Wing

Crew Size.Number Of Crew : 2

Operating Under FAR Part : Part 121

Flight Plan : IFR

Mission : Passenger

Nav In Use.Localizer/Glideslope/ILS : ILS Z

Flight Phase : Final Approach

Route In Use.STAR : LIVRI 1D

Person : 1

Location Of Person.Aircraft : X

Location In Aircraft : Flight Deck

Reporter Organization : Air Carrier

Function.Flight Crew : Captain

Function.Flight Crew : Pilot Flying

Qualification.Flight Crew : Air Transport Pilot (ATP)

Qualification.Flight Crew : Instrument

Qualification.Flight Crew : Multiengine

Experience.Flight Crew.Total : 3748

Experience.Flight Crew.Last 90 Days : 141

Experience.Flight Crew.Type : 3748

ASRS Report Number.Accession Number : 1825928

Human Factors : Confusion

Human Factors : Situational Awareness

Human Factors : Communication Breakdown

Communication Breakdown.Party1 : Flight Crew

Communication Breakdown.Party2 : ATC

Person : 2

Location Of Person.Aircraft : X

Location In Aircraft : Flight Deck

Reporter Organization : Air Carrier

Function.Flight Crew : Pilot Not Flying

Function.Flight Crew : First Officer
Qualification.Flight Crew : Instrument
Qualification.Flight Crew : Multiengine
Qualification.Flight Crew : Air Transport Pilot (ATP)
Experience.Flight Crew.Total : 654
Experience.Flight Crew.Last 90 Days : 80
Experience.Flight Crew.Type : 654
ASRS Report Number.Accession Number : 1825939
Human Factors : Confusion
Human Factors : Situational Awareness
Human Factors : Communication Breakdown
Communication Breakdown.Party1 : Flight Crew
Communication Breakdown.Party2 : ATC

Events

Anomaly.ATC Issue : All Types
Anomaly.Deviation - Altitude : Overshoot
Anomaly.Deviation / Discrepancy - Procedural : Clearance
Anomaly.Inflight Event / Encounter : CFTT / CFIT
Detector.Automation : Aircraft Terrain Warning
Detector.Person : Flight Crew
When Detected : In-flight
Result.Flight Crew : Took Evasive Action

Assessments

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

Narrative: 1

Landing Runway 28 GDL, night VMC with bright moonlight. Set up to land Runway 28 using the ILS DME 2 with the ILS DME 2 transition from IKBAN. At the last minute, Control told us to descend via the LIVRI 1D Arrival. We quickly put this arrival into the FMC, but did not change the approach. Shortly after starting the arrival, we were given direct to PLADE with continued descent to the mandatory altitude of 9,000 ft at PLADE which is the point leading into the ILS Approach to Runway 28. There was a discontinuity between PLADE and CI28, which I closed up. Once we reached PLADE, I asked my FO (First Officer) to set 7,100 ft. in the mode control panel which is the minimum altitude at CI28 and started a VNAV descent with the intention to arm the ILS just prior to CI28. At approximately 7,600 ft. we received a warning "too low terrain". We could visually see the terrain and started to level off, then, very quickly received "terrain, pull up" with amber showing on the terrain display. I immediately complied by going into the CFIT recovery procedure. We climbed to approximately 8,000 ft. and leveled off seeing that we were well clear of all terrain (no more warning and terrain indicator showed us to be clear). We then reassessed. At that time, we were very close to CI28 and had plenty of light from the city and a very bright moon. We were also in a good position to continue to the airport, so I continued to an uneventful landing.

Narrative: 2

We were landing Runway 28 in Guadalajara. Night VMC conditions with moonlight provided adequate visual references. We were set up to land Runway 28 using the ILS DME2 or

localizer Runway 28 with the transition for the ILS DME 2 with the IKBAN transition. At the last minute, Control told us to descend via the LIVRI 1D arrival. After changing to this arrival in the FMS, we realized that we needed to descend quickly. To complicate matters, Control give us directions to go direct to PLADE. I estimate Control shortened our arrival by 40 to 50 miles in giving us the arrival change and direct PLADE which greatly compounded our decent plan. This caused us to have to execute an expedited decent while having to re-program the FMS and plan for this new routing. I verbalized terrain that was to our right as we were turning direct PLADE and both the CA (Captain) and I correlated this to what we were seeing on our terrain displays. Prior to reaching PLADE, Control cleared us for the ILS Zulu Runway 28. However, we heard cleared for the ILS Two. I attribute this miscommunication to language barriers. CA asked me to set 7,100 ft., which would've been correct for ILS 2 but 7,700 ft would've been correct for ILS Z. We got the "too low, terrain" oral warning followed by the "terrain, pull up". CA commanded auto pilot off, stow speed brake (Even though they weren't in use), pitched up and added full thrust. We had the terrain in sight the whole time, as well as the Runway environment. We climbed approximately 500 ft before determining that we could safely continue the approach without incident. We landed on Runway 28 without incident.

Synopsis

Air Carrier Flight Crew reported a miscommunication with ATC. A change of STAR and instrument approach resulted in a crew communication error and response to GPWS alert.

Time / Day

Date : 202107

Local Time Of Day : 1201-1800

Place

Locale Reference.ATC Facility : ZZZ.Tower

State Reference : US

Altitude.AGL.Single Value : 800

Environment

Flight Conditions : VMC

Weather Elements / Visibility.Visibility : 10

Light : Daylight

Ceiling.Single Value : 1800

Aircraft : 1

Reference : X

Aircraft Operator.Other

Make Model Name : Aeronca Champion

Crew Size.Number Of Crew : 2

Operating Under FAR Part : Part 91

Flight Plan : None

Mission : Training

Flight Phase.Other

Airspace.Class D : ZZZ

Aircraft : 2

Reference : Y

Aircraft Operator : Military

Make Model Name : Talon (T38)

Airspace.Class D : ZZZ

Person : 1

Location Of Person.Aircraft : X

Location In Aircraft : Flight Deck

Reporter Organization : Corporate

Function.Flight Crew : Instructor

Qualification.Flight Crew : Flight Instructor

Qualification.Flight Crew : Commercial

Qualification.Flight Crew : Instrument

Qualification.Flight Crew : Multiengine

Experience.Flight Crew.Total : 599

Experience.Flight Crew.Last 90 Days : 666

Experience.Flight Crew.Type : 433

ASRS Report Number.Accession Number : 1824978

Human Factors : Situational Awareness

Human Factors : Communication Breakdown

Communication Breakdown.Party1 : Flight Crew

Communication Breakdown.Party2 : ATC

Person : 2

Location Of Person.Aircraft : X
Location In Aircraft : Flight Deck
Reporter Organization : Personal
Function.Flight Crew : Pilot Flying
Qualification.Flight Crew : Student
Experience.Flight Crew.Total : 37
Experience.Flight Crew.Last 90 Days : 25
Experience.Flight Crew.Type : 25
ASRS Report Number.Accession Number : 1824990
Human Factors : Communication Breakdown
Human Factors : Situational Awareness
Communication Breakdown.Party1 : Flight Crew
Communication Breakdown.Party2 : ATC

Events

Anomaly.ATC Issue : All Types
Anomaly.Conflict : NMAC
Anomaly.Deviation - Track / Heading : All Types
Anomaly.Deviation / Discrepancy - Procedural : Published Material / Policy
Anomaly.Deviation / Discrepancy - Procedural : Clearance
Detector.Person : Flight Crew
Miss Distance.Horizontal : 400
Miss Distance.Vertical : 100
Were Passengers Involved In Event : N
When Detected : In-flight
Result.Flight Crew : Executed Go Around / Missed Approach
Result.Flight Crew : Took Evasive Action
Result.Air Traffic Control : Issued Advisory / Alert

Assessments

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

Narrative: 1

Near miss with a T-38 during a right downwind at ZZZ Runway XX. The T-38 did a go around for Runway XY and started a climb while we were turning crosswind to downwind, upon intersecting Runway XY the T-38 had leveled off co-altitude and was headed at us from the arrival end of Runway XY. IP (Instructor Pilot) had them in sight and was about to take controls to make evasive action when the T-38 aggressively pitched up as if they spotted us as well. Ultimately, the T-38 passed over and behind us within 500 ft. The T-38 was on a military frequency however we overheard Tower respond to their call with something along the lines of "He was in a right downwind for [Runway] XX, no factor".

Narrative: 2

ATC cleared me for right traffic out of Runway XX and I was staying in the pattern. ATC had cleared a T-38 for landing on Runway XY. The T-38 performed a go around and my instructor point out that he was headed directly for us. I saw him aggressively pitch up and climb above our wing.

Synopsis

Flight Instructor and Student reported a Near Mid Air Collision and observed the other aircraft pitched up aggressively to avoid collision.

Time / Day

Date : 202107

Local Time Of Day : 0601-1200

Place

Locale Reference.Airport : LAX.Airport

State Reference : CA

Altitude.AGL.Single Value : 0

Aircraft : 1

Reference : X

ATC / Advisory.Tower : LAX

Aircraft Operator : Air Carrier

Make Model Name : Commercial Fixed Wing

Crew Size.Number Of Crew : 2

Operating Under FAR Part : Part 121

Flight Plan : IFR

Mission : Passenger

Flight Phase : Takeoff / Launch

Route In Use : None

Aircraft : 2

Reference : Y

ATC / Advisory.Tower : LAX

Aircraft Operator : Air Carrier

Make Model Name : Commercial Fixed Wing

Crew Size.Number Of Crew : 2

Operating Under FAR Part : Part 121

Flight Plan : IFR

Mission : Passenger

Flight Phase : Taxi

Person : 1

Location Of Person.Aircraft : X

Location Of Person.Facility : LAX.Tower

Reporter Organization : Government

Function.Air Traffic Control : Local

Qualification.Air Traffic Control : Fully Certified

Experience.Air Traffic Control.Time Certified In Pos 1 (yrs) : 3

ASRS Report Number.Accession Number : 1823740

Human Factors : Situational Awareness

Human Factors : Communication Breakdown

Communication Breakdown.Party1 : ATC

Communication Breakdown.Party2 : Flight Crew

Person : 2

Location Of Person.Aircraft : X

Location Of Person.Facility : LAX.Tower

Reporter Organization : Government

Function.Air Traffic Control : Handoff / Assist
Qualification.Air Traffic Control : Fully Certified
Experience.Air Traffic Control.Time Certified In Pos 1 (yrs) : 1.5
ASRS Report Number.Accession Number : 1823730
Human Factors : Communication Breakdown
Communication Breakdown.Party1 : ATC
Communication Breakdown.Party2 : Flight Crew

Events

Anomaly.Conflict : Ground Conflict, Critical
Anomaly.Deviation / Discrepancy - Procedural : Clearance
Anomaly.Ground Incursion : Runway
Detector.Automation : Air Traffic Control
Detector.Person : Air Traffic Control
When Detected : Taxi
Result.Air Traffic Control : Issued Advisory / Alert
Result.Air Traffic Control : Issued New Clearance

Assessments

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

Narrative: 1

Aircraft Y had just landed and was instructed to hold short of H9 on H to protect for other arrivals that might exit at H9. When I was ready, I taxied Aircraft Y up to hold short of 25R at I. However, Aircraft Y didn't respond. I called him 3 times with no response. I cleared Aircraft X for takeoff on 25R. My assist asked ground control to see if Aircraft Y had switched frequencies and was just about to call approach to see if Aircraft Y had got back to that frequency when we saw Aircraft Y taxiing forward. I called Aircraft Y and verified he would hold short of Runway 25R which he read back with his call sign. Shortly after my assist said "He's not going to stop!" Momentarily I didn't believe it but quickly went to Aircraft Y and told him to stop. I then immediately cancelled Aircraft X takeoff clearance. Aircraft Y did stop with their nose about at the runway edge. Aircraft X was about at B2 when I cancelled their clearance. Aircraft X was already stopping before ASDE-X (Airport Surface Detection Equipment) alarmed. Aircraft X taxied back for departure and I crossed Aircraft Y. Maybe I shouldn't have departed Aircraft X with Aircraft Y not responding.

Narrative: 2

Aircraft Y was holding on taxiway H short of H9. Aircraft X was told to Line up and wait Runway 25R. Aircraft Y was then told to turn left at H and Hold Short Runway 25R. There was no response from Aircraft Y. The instruction was repeated again to Aircraft Y but still no response. I on Local Assist went to Ground Control to see if they had Aircraft Y on frequency which they did not. I noticed Aircraft Y start moving. Local Control reached out again with and repeated Hold Short Runway 25R. This time Aircraft Y responded and gave a good read back of Hold Short Runway 25R. Aircraft X was cleared for takeoff and started the departure roll. I first noticed that as Aircraft Y was turning at taxiway Lima approaching the hold bars it did not look like they were stopping, and verbal said that. I immediately said again that Aircraft Y is not stopping. Local Control told Aircraft Y to hold position and canceled the takeoff clearance for Aircraft X as they were between B3 and G. Two seconds later the Airport Surface Detection Equipment alarm went off for the occupied runway alert. Aircraft X exited Runway 25R at B4 and taxied back for departure. Aircraft Y continued the cross and went to parking. I don't know what to recommend to prevent this

from happening again as all the protocols were followed with correct read backs. I do not know if the Runway Stop Lights were working properly. I know there were issues with that system in the past with the red lights turning off early. But since it was daytime and Lima is not in a direct line of sight for those lights, I cannot know if the system was functioning properly.

Synopsis

LAX Tower Local Controller and the Local Assist Controller reported an aircraft which had been instructed to hold short of the runway taxied on to the runway at the same time a departure was beginning their takeoff roll.

Time / Day

Date : 202107

Local Time Of Day : 0601-1200

Place

Locale Reference.Airport : ZZZ.Airport

State Reference : US

Altitude.AGL.Single Value : 0

Environment

Flight Conditions : VMC

Aircraft : 1

Reference : X

ATC / Advisory.Ground : ZZZ

ATC / Advisory.Tower : 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

Flight Phase : Taxi

Aircraft : 2

Reference : Y

Make Model Name : Medium Transport

Crew Size.Number Of Crew : 2

Flight Phase.Other

Person : 1

Location Of Person.Aircraft : X

Location In Aircraft : Flight Deck

Reporter Organization : Air Carrier

Function.Flight Crew : Captain

Qualification.Flight Crew : Instrument

Qualification.Flight Crew : Multiengine

Qualification.Flight Crew : Air Transport Pilot (ATP)

Experience.Flight Crew.Total : 3778

Experience.Flight Crew.Last 90 Days : 164

Experience.Flight Crew.Type : 3778

ASRS Report Number.Accession Number : 1822878

Human Factors : Communication Breakdown

Human Factors : Workload

Human Factors : Situational Awareness

Communication Breakdown.Party1 : Flight Crew

Communication Breakdown.Party2 : ATC

Person : 2

Location Of Person.Aircraft : X
Location In Aircraft : Flight Deck
Reporter Organization : Air Carrier
Function.Flight Crew : First Officer
Function.Flight Crew : Pilot Not Flying
Qualification.Flight Crew : Multiengine
Qualification.Flight Crew : Air Transport Pilot (ATP)
Qualification.Flight Crew : Instrument
Experience.Flight Crew.Total : 2729
Experience.Flight Crew.Last 90 Days : 230
Experience.Flight Crew.Type : 2729
ASRS Report Number.Accession Number : 1822880
Human Factors : Workload
Human Factors : Communication Breakdown
Communication Breakdown.Party1 : Flight Crew
Communication Breakdown.Party2 : ATC

Events

Anomaly.ATC Issue : All Types
Anomaly.Conflict : Ground Conflict, Less Severe
Anomaly.Deviation / Discrepancy - Procedural : Clearance
Anomaly.Ground Incursion : Taxiway
When Detected : Taxi
Result.Flight Crew : Requested ATC Assistance / Clarification
Result.Air Traffic Control : Provided Assistance

Assessments

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

Narrative: 1

During landing roll out, using max autobrake, transfer of control, stowing the thrust reversers, at a relatively high speed, Tower issued taxi instruction of turn left on Taxiway 1 hold short of Taxiway 2. As I was concentrating on flying the airplane (decelerating on landing rolling out) I only heard Left on 1 and 2. As I vacated the runway on Taxiway 1 Ground called us but was stepped on and was unreadable. When vacating taxiway 1 and clearing the hold short line for the runway there is barely room to even hold short of taxiway 2 thus, I never expected for that to even be a possibility. I taxied out onto taxiway 2 and then saw Aircraft Y under tow on taxiway 2. He was far away and there was no threat of a collision but there was a conflict now on 2. Ground advised us we were supposed to hold short of 2, sounded annoyed, and then told the Aircraft Y tow crew to pull into the run-up area which they did and told us to continue which we did with no further complications. Receiving taxi instructions during a landing roll out while a pilot is still "flying" the jet and concentrating is definitely a threat I will address moving forward in my briefings.

Narrative: 2

Daytime/VMC arrival into ZZZ. Normal landing/rollout, aircraft decelerating brakes MAX, Tower issued clearance to exit via Taxiway 1, hold short Taxiway 2, contact Ground. Clearance heard/understood/read back accurately by First Officer,

misheard/misunderstood by Captain as "exit Taxiway 1, Taxiway 2, contact Ground." First Officer unaware of misunderstanding. Clearing runway, VHF 1 switched to Ground. Ground transmission blocked by simultaneous transmission of third aircraft, essentially unreadable to First Officer. Captain still exiting left on 1, continued left turn onto 2. First Officer assumed transmission heard/understood sufficiently by Captain to continue taxi. Turning onto 2, CA noted Aircraft Y under tow opposite direction on Taxiway 2, stopped aircraft well short of conflict. Reprimanded by ground for failing to hold short Taxiway 2. Tow crew directed to turn into holding pad, allow Aircraft Y to pass. Conflict resolved, ground directed taxi to parking via 2. Breakdown in CRM/communication/First Officer verification. Contributing factors included: ATC taxi instructions issued during high workload period (short field landing, brakes MAX, transfer of controls). Minimal length of Taxiway 2 resulted in a) limited area to clear runway and still hold short taxiway A, and b) insufficient time to query ground regarding blocked transmission and/or verify with Captain understood taxi instructions.

Synopsis

Air carrier flight crew reported a taxiway incursion and ground conflict resulted from receiving ATC taxi instructions during a high workload landing roll and not being able to clarify with Ground Control.

Time / Day

Date : 202107

Local Time Of Day : 1801-2400

Place

Locale Reference.ATC Facility : ZZZ.ARTCC

State Reference : US

Altitude.MSL.Single Value : 31000

Environment

Light : Night

Aircraft

Reference : X

ATC / Advisory.Center : ZZZ

Aircraft Operator : Air Carrier

Make Model Name : B737-700

Operating Under FAR Part : Part 121

Flight Plan : IFR

Mission : Passenger

Flight Phase : Cruise

Route In Use : Vectors

Airspace.Class A : ZZZ

Person : 1

Location Of Person.Facility : ZOA.ARTCC

Location In Aircraft : Flight Deck

Reporter Organization : Air Carrier

Function.Flight Crew : Pilot Flying

Function.Flight Crew : Captain

Qualification.Flight Crew : Instrument

Qualification.Flight Crew : Multiengine

Qualification.Flight Crew : Air Transport Pilot (ATP)

Experience.Flight Crew.Last 90 Days : 195

Experience.Flight Crew.Type : 9845

ASRS Report Number.Accession Number : 1822540

Human Factors : Confusion

Human Factors : Time Pressure

Human Factors : Communication Breakdown

Communication Breakdown.Party1 : Flight Crew

Communication Breakdown.Party2 : ATC

Person : 2

Location Of Person.Aircraft : X

Location In Aircraft : Flight Deck

Reporter Organization : Air Carrier

Function.Flight Crew : Pilot Not Flying

Function.Flight Crew : First Officer

Qualification.Flight Crew : Multiengine

Qualification.Flight Crew : Air Transport Pilot (ATP)
Qualification.Flight Crew : Instrument
ASRS Report Number.Accession Number : 1822497
Human Factors : Time Pressure
Human Factors : Distraction
Human Factors : Communication Breakdown
Human Factors : Confusion
Communication Breakdown.Party1 : Flight Crew
Communication Breakdown.Party2 : ATC

Events

Anomaly.Airspace Violation : All Types
Anomaly.ATC Issue : All Types
Anomaly.Deviation / Discrepancy - Procedural : Published Material / Policy
Anomaly.Deviation / Discrepancy - Procedural : FAR
Detector.Person : Flight Crew
Detector.Person : Air Traffic Control
When Detected : In-flight
Result.Flight Crew : Requested ATC Assistance / Clarification
Result.Flight Crew : Exited Penetrated Airspace
Result.Air Traffic Control : Issued Advisory / Alert
Result.Air Traffic Control : Issued New Clearance

Assessments

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

Narrative: 1

Primarily, en route ATC was task saturated the entire day working multiple frequencies while providing speed and vector control, versus sequencing traffic on the arrivals. On the leg from ZZZ to ZZZ1, we were handed off to ZZZ near the waypoint ZZZZZ. After multiple failed attempts to reach ATC, we returned to the previous frequency to try an alternate frequency. This frequency was very busy as ATC was working multiple frequencies and also providing multiple aircraft with vectors and speed control. We were given 10 degrees left. ATC told us to expect direct ZZZZZ1. As we approached ZZZZZ2, we tried multiple times to reach ATC on the frequency assigned. Unable to reach them we tried the alternate frequency multiple times with no success. Shortly after those attempts, ATC transmitted on Guard frequency for us to turn south immediately. We replied that we are turning south and had attempted to reach them multiple times on two separate frequencies. Their reply was, "Yeah, right!"

Narrative: 2

On (date) at approximately (time), we lost communication with Center, while on a vector and ended up in Special Use Airspace. About 10 minutes prior, we were switched to a frequency from previous Controller. We were unable to get contact on this frequency, so we went back to our previous assigned frequency and were given a new frequency. We were able to contact Center on this frequency. While with Center on this frequency, we were given a vector for spacing with an expectation to rejoin our arrival. After a few minutes, without hearing anything we began to query the Controller. We had no contact. We tried a few times, when the Captain said we should try the other frequency we were

given earlier. As we switched over, we hear Center simulcasting on Guard, to come up. As we contacted Center, the Controller asked us where we had been and we explain that we were up on the frequency where they were talking to us earlier. The Controller then proceeds to give us a vector and tells us that we are in Special Use Airspace. Once we cleared the Airspace we continued with the arrival uneventfully.

Synopsis

A flight crew reported they flew into military Restricted Airspace when were assigned a vector off course and issued a frequency change. They could not establish communications on the new frequency in a timely manner due to frequency congestion and saturation on the new frequency.

Time / Day

Date : 202107

Local Time Of Day : 0601-1200

Place

Locale Reference.ATC Facility : ZZZ.TRACON

State Reference : US

Relative Position.Angle.Radial : 150

Relative Position.Distance.Nautical Miles : 3

Altitude.MSL.Single Value : 3000

Environment

Flight Conditions : IMC

Weather Elements / Visibility.Visibility : 5

Light : Night

Ceiling.Single Value : 800

Aircraft

Reference : X

ATC / Advisory.TRACON : ZZZ

Aircraft Operator : Air Carrier

Make Model Name : B737-800

Crew Size.Number Of Crew : 2

Operating Under FAR Part : Part 121

Flight Plan : IFR

Mission : Passenger

Flight Phase : Initial Approach

Airspace.Class C : ZZZ

Person : 1

Location Of Person.Aircraft : X

Location In Aircraft : Flight Deck

Reporter Organization : Air Carrier

Function.Flight Crew : Pilot Flying

Function.Flight Crew : Captain

Qualification.Flight Crew : Instrument

Qualification.Flight Crew : Multiengine

Qualification.Flight Crew : Air Transport Pilot (ATP)

Experience.Flight Crew.Last 90 Days : 230

Experience.Flight Crew.Type : 19000

ASRS Report Number.Accession Number : 1822494

Human Factors : Time Pressure

Human Factors : Workload

Human Factors : Communication Breakdown

Communication Breakdown.Party1 : Flight Crew

Communication Breakdown.Party2 : ATC

Person : 2

Location Of Person.Aircraft : X
Location In Aircraft : Flight Deck
Reporter Organization : Air Carrier
Function.Flight Crew : Pilot Not Flying
Function.Flight Crew : First Officer
Qualification.Flight Crew : Air Transport Pilot (ATP)
Qualification.Flight Crew : Instrument
Qualification.Flight Crew : Multiengine
ASRS Report Number.Accession Number : 1822513
Human Factors : Communication Breakdown
Human Factors : Time Pressure
Human Factors : Workload
Communication Breakdown.Party1 : Flight Crew
Communication Breakdown.Party2 : ATC

Events

Anomaly.ATC Issue : All Types
Anomaly.Deviation - Altitude : Overshoot
Anomaly.Deviation - Altitude : Excursion From Assigned Altitude
Anomaly.Deviation / Discrepancy - Procedural : Published Material / Policy
Anomaly.Deviation / Discrepancy - Procedural : Clearance
Anomaly.Inflight Event / Encounter : Weather / Turbulence
Anomaly.Inflight Event / Encounter : CFTT / CFIT
Detector.Automation : Air Traffic Control
Detector.Person : Air Traffic Control
When Detected : In-flight
Result.Flight Crew : Requested ATC Assistance / Clarification
Result.Flight Crew : Executed Go Around / Missed Approach
Result.Air Traffic Control : Issued New Clearance
Result.Aircraft : Equipment Problem Dissipated

Assessments

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

Narrative: 1

On approach in to ZZZ, we were cleared direct ZZZZZ intersection and to descend to 3,000 feet There was a thunderstorm cell between ZZZZZ and ZZZZZ1 (Final Approach Fix) on the approach to Runway XXR to ZZZ. We asked ZZZ TRACON (Approach Control) for direct ZZZZZ1 to avoid the thunderstorm cell. We were anticipating a visual approach to Runway XXR because the most recent ATIS (weather report) was reporting only Few and Scattered clouds at the airport with adequate visibility for a visual approach. The TRACON Controller asked if we would be able to "get the airport?" My First Officer and I were slightly confused by his phraseology and tried to discuss what the Controller meant. At that time, we were within a few miles from ZZZZZ and just about to level off at 3,000 feet. The Autopilot Mode Control panel was in Vertical Speed (Altitude Acquire) and LNAV to ZZZZZ. I was anticipating going to ZZZZZ1 and was ready to change the altitude to 2,800 feet in MCP for the autopilot. We were then cleared on a 160 degree heading to join the final approach course of 128, and cleared for the approach. I didn't hear the Controller say "maintain 3,000 feet until established." I selected VOR/LOC and dialed 2,800 feet into the autopilot Mode Control Panel. Because we were in a descent and in Altitude Acquire, the autopilot continued to descend towards 2,800 feet. My First Officer said we were

supposed to maintain 3,000 feet. I had missed that part of the clearance so I dialed 3,000 feet into the Mode Control Panel, but by that point the aircraft had descended below 3,000 feet and was continuing to descend and would not ever capture 3,000 feet. I was also trying to slow the aircraft and get it to capture the localizer. Seeing that we weren't going to level off, I tried to use Vertical Speed to make the aircraft climb back to 3,000 feet, but it was continuing to descend. Our descent was exacerbated by the fact that I still had the speedbrakes deployed almost to the flight [descent]. ZZZ TRACON (Approach Control) said he he had a low altitude alert and his MVA [Min Vector Altitude] was 2,800 feet. We were now at about 2,300 feet. I disconnected the autopilot and autothrottles, started a climb and we decided to go missed approach. I finally stowed the speedbrakes, climbed to our clearance altitude and we then got re-vectorred by ZZZ TRACON for another approach to Runway XXR and landed safely.

Narrative: 2

We were being vectored around some weather coming into ZZZ and were given a descent to 3,000 feet and direct ZZZZZ outside of ZZZZZ1 on the ILS XXX. There was some confusion as ATC asked if we would be able to get the airport. I wasn't sure if he meant visually or altitude wise. After a pause, as I pondered his meaning, I responded that we were IMC. At the time, I didn't think we were high, so I assumed he meant visually. Just a couple miles outside of ZZZZZ, Captain asked for a turn to ZZZZZ1. I paused because I was anticipating a vector shortly to intercept the final approach course. I then asked ATC for the turn inbound, and ATC responded that he was just about to give us a vector and then provided the clearance. We were given a 160 heading to join and maintain 3,000 feet until established and cleared for the ILS to [Runway] XXR. This extra communication ultimately caused a delay in getting turned in. Because it all got really busy, I didn't see that Captain dialed in 2,800 feet. So, I don't think it acquired 3,000 feet and was now descending below it. Then I think 3,000 feet was reset into the MCP and yet the aircraft was still descending. All of this was happening while I was replying to ATC and I didn't realize what happened until after we talked about it later. We triggered a low altitude alert, and ATC informed us that we were to maintain 3,000 feet until established. I responded that we were correcting. Captain was climbing back up to 3,000 feet and we were slightly south of the localizer. I figured by the time we got back to 3,000 feet, we would then be high for the approach and not being established on the localizer, I said we should go-around. Captain agreed, and we did. This whole thing took me out of the Green, made me feel rushed and got behind in my responsibilities. A go-around was the best decision.

Synopsis

B737-800 flight crew reported a CFIT event during approach resulting in a go-around. A communications breakdown between flight crew and ATC was cited as a contributing factor.

Time / Day

Date : 202107

Local Time Of Day : 1201-1800

Place

Locale Reference.Airport : ZZZ.Airport

State Reference : US

Environment

Flight Conditions : VMC

Light : Daylight

Aircraft : 1

Reference : X

ATC / Advisory.TRACON : ZZZ

Aircraft Operator : Air Taxi

Make Model Name : SA-227 AC Metro III

Crew Size.Number Of Crew : 2

Operating Under FAR Part : Part 135

Flight Plan : IFR

Mission : Cargo / Freight / Delivery

Flight Phase : Initial Approach

Route In Use : Vectors

Airspace.Class E : ZZZ

Aircraft : 2

Reference : Y

Make Model Name : Any Unknown or Unlisted Aircraft Manufacturer

Flight Plan : VFR

Flight Phase : Cruise

Airspace.Class E : ZZZ

Person : 1

Location Of Person.Aircraft : X

Location In Aircraft : Flight Deck

Function.Flight Crew : Pilot Not Flying

Function.Flight Crew : First Officer

Qualification.Flight Crew : Multiengine

Qualification.Flight Crew : Instrument

ASRS Report Number.Accession Number : 1819754

Human Factors : Communication Breakdown

Human Factors : Distraction

Human Factors : Time Pressure

Human Factors : Workload

Human Factors : Confusion

Communication Breakdown.Party1 : Flight Crew

Communication Breakdown.Party2 : ATC

Person : 2

Location Of Person.Aircraft : X
Location In Aircraft : Flight Deck
Function.Flight Crew : Pilot Flying
Function.Flight Crew : Captain
Qualification.Flight Crew : Instrument
Qualification.Flight Crew : Multiengine
Qualification.Flight Crew : Air Transport Pilot (ATP)
ASRS Report Number.Accession Number : 1819756
Human Factors : Confusion
Human Factors : Distraction
Human Factors : Situational Awareness
Human Factors : Workload
Human Factors : Communication Breakdown
Communication Breakdown.Party1 : Flight Crew
Communication Breakdown.Party2 : ATC

Events

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

Assessments

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

Narrative: 1

While supporting a Metro pilot as a non-acting crew member on the ZZZ-ZZZZ run who was unfamiliar with the specifics, we were returning to ZZZ and found the airplane in a near-miss with VFR Traffic. The pilot, was instructed to fly direct to the IAF. The controller alerted us about VFR traffic, later instructing to expedite descent to 4,300 feet. I continued to watch for traffic as it was on my side of the aircraft. I found the traffic and alerted the Captain that it was at the same altitude, heading in our direction of flight. Being unfamiliar with the aircraft I'm not sure if there is proper TCAS, but we received an alert and immediately descended to avoid the near-miss with VFR traffic. The pilot flying then told the Approach Controller his action and intent, and the controller repeated twice "below MVA (Minimum Vectoring Altitude) climb to 4,300 feet but we were unable due to the VFR traffic we were avoiding. After successfully avoiding the traffic the Captain climbed to 4,300 feet and continued the approach. I saw the VFR/colliding traffic at the airplane's 3 o'clock, the side of the airplane I could visually see from my observation seat. Lack of vectoring instruction from ATC for two airplanes on a collision course. Captain immediately descended to avoid collision with VFR traffic. IFR traffic and VFR traffic needs better observation from ATC. Though I was a non-acting crew member on this flight the Captain and I worked as a team and executed proper CRM to avoided a mid-air collision.

Narrative: 2

I was operating Aircraft X to ZZZ, as the Captain and Pilot Flying. Onboard I had a Brasilia First Officer, who flew down to ZZZZ with me to assist with customs and all the paperwork associated with the run. ZZZ-ZZZZ was his regular run, and I was covering it for the day. The additional crew member was not an active crew member during the leg, but he was on headset with me helping to monitor the flight. It was towards the end of the flight, and we were being vectored by Approach. We were flying towards the Initial Approach Fix for the ILS Approach and descending to 4,300 feet. During the descent, ATC called out VFR traffic to our 3 o'clock position several miles away, at an altitude of 4,500 feet. During the descent, ATC has also told us to expedite our descent. Initially, we saw traffic in that direction and called "in sight" to ATC, but I quickly realized we had identified a 737 climbing, not the VFR traffic we were looking for. I decided to use the First Officer and asked him to continue to look for the VFR traffic. He told me he had it in sight, and he helped me locate it. At about that same time, the transponder gave an aural alert "traffic, 1 mile, same altitude". When I saw the traffic, we were very close and a couple of hundred feet below it. The other aircraft had little relative motion on the windscreen, so I knew our flight paths would cross very closely. At that moment, I made a split-second decision to exercise Pilot in Command authority, and I deviated from our altitude by initiating a descent. I immediately advised ATC that I was deviating due to traffic, and I was descending to 3,500 feet. The weather was VFR, so I felt like descending was the safest option for the flight. The controller responded that I was below his Minimum Vectoring Altitude and needed to return to 4,300 feet. I told him that we would go back to 4,300 feet when able. I stayed around 3,500 feet until I felt like we were clear of the traffic. The controller asked if I was responding to an RA. I told him, no. I'm not sure if was explained that the aircraft was not equipped with a TCAS. Eventually, we returned to 4,300 feet, got a visual on ZZZ, flew a Visual Approach to the field, and continued the flight without further abnormalities. We were aware of the event the moment it occurred through active monitoring. I think the instructions we received from ATC were the primary factor in this event. I deviated from our assigned altitude to create a safe amount of separation between our aircraft. I should have queried the controller more about the traffic at 4,500 feet as he was having us expedite our descent. That could have given him an opportunity to change his instruction for us. I thought his plan was to get us further below the traffic.

Synopsis

Air taxi First Officer reported being vectored for an approach by TRACON descended below their assigned altitude to avoid VFR traffic which ATC had advised them of but did not issue appropriate instructions to avoid the traffic. ATC advised the pilot they descended below the Minimum Vectoring Altitude.

Time / Day

Date : 202106

Local Time Of Day : 1201-1800

Place

Locale Reference.ATC Facility : ZZZ.Tower

State Reference : US

Environment

Flight Conditions : VMC

Aircraft : 1

Reference : X

ATC / Advisory.Tower : ZZZ

Aircraft Operator : Air Carrier

Make Model Name : B737 MAX Series Undifferentiated

Crew Size.Number Of Crew : 2

Operating Under FAR Part : Part 121

Flight Plan : IFR

Mission : Passenger

Flight Phase : Taxi

Aircraft : 2

Reference : Y

ATC / Advisory.Tower : ZZZ

Aircraft Operator : Air Carrier

Make Model Name : Commercial Fixed Wing

Crew Size.Number Of Crew : 2

Operating Under FAR Part : Part 121

Flight Plan : IFR

Flight Phase : Taxi

Component

Aircraft Component : Monitoring System

Aircraft Reference : X

Problem : Design

Person : 1

Location Of Person.Aircraft : X

Location In Aircraft : Flight Deck

Reporter Organization : Air Carrier

Function.Flight Crew : First Officer

Function.Flight Crew : Pilot Not Flying

Qualification.Flight Crew : Air Transport Pilot (ATP)

Qualification.Flight Crew : Instrument

Qualification.Flight Crew : Multiengine

Experience.Flight Crew.Total : 10373

Experience.Flight Crew.Last 90 Days : 81

Experience.Flight Crew.Type : 10373
ASRS Report Number.Accession Number : 1817781
Human Factors : Distraction
Human Factors : Situational Awareness
Human Factors : Communication Breakdown
Communication Breakdown.Party1 : Flight Crew
Communication Breakdown.Party2 : ATC

Person : 2

Location Of Person.Aircraft : X
Location In Aircraft : Flight Deck
Reporter Organization : Air Carrier
Function.Flight Crew : Pilot Flying
Function.Flight Crew : Captain
Qualification.Flight Crew : Instrument
Qualification.Flight Crew : Multiengine
Qualification.Flight Crew : Air Transport Pilot (ATP)
Experience.Flight Crew.Total : 887
Experience.Flight Crew.Last 90 Days : 156
Experience.Flight Crew.Type : 9200
ASRS Report Number.Accession Number : 1817755
Human Factors : Distraction
Human Factors : Situational Awareness
Human Factors : Communication Breakdown
Communication Breakdown.Party1 : Flight Crew
Communication Breakdown.Party2 : ATC

Events

Anomaly.Aircraft Equipment Problem : Less Severe
Anomaly.ATC Issue : All Types
Anomaly.Conflict : Ground Conflict, Less Severe
Anomaly.Deviation / Discrepancy - Procedural : Clearance
Anomaly.Ground Incursion : Runway
Detector.Person : Air Traffic Control
When Detected : Taxi
Result.Flight Crew : Became Reoriented
Result.Air Traffic Control : Issued New Clearance

Assessments

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

Narrative: 1

Very interesting set of circumstances led our flight today to take the clearance to "Line Up and Wait" that was meant for another aircraft in ZZZ [airport]. After we pushed off our gate, we were cleared to taxi to Runway XXR at [taxiway] 1 from our ramp via taxiways 2, 3 and 4. We were all done with our taxi out procedures and checklist by the time we were number 1 aircraft at the hold short line of taxiway 1 for XXR. Traffic was moving steadily, so the Captain taxied right up to just prior to the "Hold Short" line. This is where the weird circumstances happened for this event: The first thing that happened is the 737 MAX RAAS (Runway Awareness and Advisory System) EGPWS Aural Callout announced our

approach to Runway XXR as it is intended to do so. Also, at the exact same time, the Tower Controller gave a clearance for an aircraft to, "At XX Right, 1, line up and wait." What happened is that the two voices; of the RAAS, and the Controller, most likely blocked each other out to us, the crew. Since I was working the radio, I made the assumption that the Controller was calling us since we heard tail end of, "XX Right, at 1." I repeated back exactly, "Line up and wait Runway XX Right, at 1, [call sign]." After that we did not hear anything from the Controller as the Captain taxied into position for the hold. As we were taxiing onto the runway, I noticed from the opposite side of the runway at Taxiway 5, Aircraft Y taxiing what looked like across the runway to me. As the Captain rounded out the turn to line us up with the runway, we hear the Controller say, "Well, that's interesting." He then proceeded to tell us that we had taken the clearance for Aircraft Y to line up and wait. I then proceeded to apologize, but that I had also read back to him the clearance. Since Aircraft Y was behind us on the runway, the Controller just told us to hold position, and he proceeded to re-shuffle the order, and was able to let us go first in front of Aircraft Y. We got a clearance for takeoff and had a non-eventful departure. As the Controller handed us over to Departure Frequency, he stated, "Upon further review, I think I screwed that up, no worries, contact Departure." At that point we started formulating a theory on what may have happened and the Captain and I started to debrief it in late climb out, and cruise flight. What I believe happened, is that when the RAAS created the aural warning that we were approaching runway XXR at intersection 4X, was the exact time where the Controller called Aircraft Y to line up and wait. BUT, upon further review of the audio of ATC, the Controller gave out the wrong taxi way intersection to Aircraft Y. What we both heard right after the RAAS had completed its aural callout, is the tail end of the clearance. Even though Aircraft Y was on taxiway 5, Tower gave out the incorrect clearance of "Aircraft Y, Runway XXR at 4X, line up and wait." At this point, I believe either both the Aircraft Y pilot and I probably keyed the mic at the same time, and repeated back the same clearance since we assumed we heard the tail end of the clearance as "XXR, at 4X, line up and wait." Or, maybe I read back the clearance first and the Aircraft Y pilot also assumed since he heard me take the clearance that it may have been for us only? That I don't really know.

Narrative: 2

I was taxiing to Runway XXR at [taxiway] 4X. I was approaching the runway hold short line as Aircraft Y in front of us received their takeoff clearance. I kept the aircraft rolling and was applying the brakes to stop just short of the hold short line when the MAX aircraft that we were in gave us the [aural alert] "Approaching Runway XXR"...at the same time Tower gave the clearance to line up and wait. The [aural alert] "Approaching Runway 28R" occurred simultaneously with the call sign when Tower said "[Call sign], XXR at 4X, line up and wait." The First Officer read back the instructions. Tower did not correct the read back. We were the only aircraft in position to take the runway at XXR at 4X. I continued taxiing onto XXR at 4X and as I was turning onto the center line, Tower said "Oh isn't that interesting", and then "[Call sign], you took Aircraft Y's clearance." I had seen Aircraft Y on the other side of the runway, farther east, at [taxiway] 5. And he was actively stopping short of XXR at 5. The Controller basically said "that is ok, Aircraft X will go first." He advised us to hold in position, he then cleared us for takeoff. After takeoff he said that "upon further review, it looks like I messed up."

Synopsis

Air carrier flight crew reported confusion over their takeoff clearance when the aircraft's RAAS issued an aural warning at the same time the Tower Controller issued the clearance.

Time / Day

Date : 202106

Local Time Of Day : 1801-2400

Place

Locale Reference.Airport : ELP.Airport

State Reference : TX

Aircraft

Reference : X

ATC / Advisory.TRACON : ELP

Aircraft Operator : Air Carrier

Make Model Name : Commercial Fixed Wing

Crew Size.Number Of Crew : 2

Operating Under FAR Part : Part 121

Flight Plan : IFR

Mission : Passenger

Flight Phase : Climb

Flight Phase : Initial Climb

Person : 1

Location Of Person.Aircraft : X

Location In Aircraft : Flight Deck

Reporter Organization : Air Carrier

Function.Flight Crew : Pilot Flying

Function.Flight Crew : Captain

Qualification.Flight Crew : Multiengine

Qualification.Flight Crew : Air Transport Pilot (ATP)

Qualification.Flight Crew : Instrument

ASRS Report Number.Accession Number : 1813963

Human Factors : Communication Breakdown

Communication Breakdown.Party1 : Flight Crew

Communication Breakdown.Party2 : ATC

Person : 2

Location Of Person.Aircraft : X

Location In Aircraft : Flight Deck

Reporter Organization : Air Carrier

Function.Flight Crew : Pilot Not Flying

Function.Flight Crew : First Officer

Qualification.Flight Crew : Multiengine

Qualification.Flight Crew : Air Transport Pilot (ATP)

Qualification.Flight Crew : Instrument

ASRS Report Number.Accession Number : 1813962

Human Factors : Communication Breakdown

Communication Breakdown.Party1 : Flight Crew

Communication Breakdown.Party2 : ATC

Events

Anomaly.ATC Issue : All Types
Anomaly.Deviation - Track / Heading : All Types
Anomaly.Deviation / Discrepancy - Procedural : Published Material / Policy
Anomaly.Deviation / Discrepancy - Procedural : Clearance
Detector.Person : Air Traffic Control
When Detected : In-flight
Result.Flight Crew : Returned To Clearance
Result.Flight Crew : Overcame Equipment Problem
Result.Flight Crew : Became Reoriented

Assessments

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

Narrative: 1

We were taking off from ELP on Runway 22 and had an initial clearance for the TDOWN3 RNAV Departure. Tower cleared us for takeoff with revised clearance to turn left to 200 and climb to 17,000 [feet]. I was the flying pilot manually flying. As we were accelerating and getting the aircraft to a clean configuration we were issued a frequency change to Departure. Upon checking in we were immediately given further instructions which included a right turn after reaching 6,200 feet to 060. Both of us misunderstood the turn right part of the clearance. The FO (First Officer) read back "passing 6,200 heading 060" and had no response from the controller. We climbed through 6,200 and turned left. We were about half way through the left turn when the controller saw the mistake and told us it was a right turn, but then told us to continue the left turn. He later asked us to call them for possible pilot certificate action. There are several causal factors [due to direction of turn by flight crew]. First, having a clearance for an RNAV departure that has a left turn from Runway 22 sets you up to expect a left turn out for protected airspace even after receiving a last minute change to the departure plan using radar vectors. Because the radar vectors are given last minute the old departure stays in the FMC showing the original route on our map displaying that left turn, so even though we were not following the route displayed it probably influenced our thought pattern. There is no published departures turning out to the right from Runway 22 due to mountainous terrain if you are departing east. Secondly, we also had briefed the engine failure procedures that have you turn out to the left for the same reason. Third, from a 200 heading to turn right to 060 is counter intuitive because it is more than 180 degree turn. All of these factors I think caused expectation bias to turn left and not hear the right turn instruction. Fourth, the controllers failure to emphasize the right turn part when it is more than 180 from current heading and his not ensuring the read back was correct. Controllers need to emphasize the direction of turn especially if it's more than 180 degrees and ensure they get a correct read back. On the phone the controller said this was normal to avoid traffic from Mexico. If this is a common procedure to use radar vectors to turn us out an opposite direction of our assigned clearance then there needs to be some notes somewhere in our charts so we can prepare for that ahead of time. This non published procedure could cause conflicts with terrain in the event of an engine failure.

Narrative: 2

The missed approach and takeoff engine failure profiles for Runway 22 tell you to turn left. The TDOWN 3 SID, we were assigned, tells you to turn left off of Runway 22. The reason all of the departures turn left on Runway 22 at El Paso is because there is high terrain if

you turn right. On takeoff, we were told to climb to 17,000 feet and turn left to heading 200. When we contacted Departure, the controller quickly blurted out a long, involved clearance. I responded, "Passing 6.2, turn to 060." He did not respond back to my radio call. On a heading of 200, the heading of 060 is to the left. As we entered the left turn to 060, the controller informed us that he had told us to turn right to 060, he also told us to expedite our left turn and continue to a heading of 010. When we rolled out on the heading, he told us to call a phone number because of a potential violation. I read the phone number back to him and asked him to verify. He did not respond because he was working two frequencies, and was talking to another aircraft on the other frequency. When we called the phone number for El Paso Departure Control, they told us that left turns off Runway 22 often conflict with traffic at a Mexican airport. So, they often vector you to the right. The Captain and I have both been in and out of El Paso numerous times, and have never gotten a right turn off Runway 22. None of our guidance for El Paso says to expect a right hand turn. Expectation bias caused us to hear "turn to 060" instead of "turn right to 060." Also, the Departure Controller was working two frequencies and did not catch that we said "turn to 060." Here is what he blurted at us at 1,000 feet AGL while we were retracting the flaps, "[company name], radar contact, turn right to 060 and climb to 17,000." He also had a thick, Hispanic accent. If the keyword was "right", it didn't help that he placed it in the middle of a sentence with no emphasis or follow up. If left departures off Runway 22 conflict with Mexican air traffic, perhaps they need an updated departure procedure. The ATKNN 5 Departure off Runway 22 turns right, but it continues west bound. There are no departure procedures for Runway 22 that turn right initially, and then continue to the east. Also, none of our guidance tells us to expect a right turn off of Runway 22.

Synopsis

Air carrier flight crew reported departure procedures require clarification by ATC and departure charts regarding direction of turn for southwest departures.

Time / Day

Date : 202106

Local Time Of Day : 1801-2400

Place

Locale Reference.ATC Facility : ZZZ.ARTCC

State Reference : US

Environment

Flight Conditions : VMC

Aircraft

Reference : X

ATC / Advisory.CTAF : ZZZ

ATC / Advisory.TRACON : ZZZ

Aircraft Operator : Air Carrier

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

Crew Size.Number Of Crew : 2

Operating Under FAR Part : Part 121

Flight Plan : IFR

Mission : Passenger

Nav In Use : GPS

Nav In Use : FMS Or FMC

Flight Phase : Initial Approach

Person : 1

Location Of Person.Aircraft : X

Location In Aircraft : Flight Deck

Reporter Organization : Air Carrier

Function.Flight Crew : Pilot Flying

Function.Flight Crew : Captain

Qualification.Flight Crew : Multiengine

Qualification.Flight Crew : Air Transport Pilot (ATP)

Qualification.Flight Crew : Instrument

ASRS Report Number.Accession Number : 1813915

Human Factors : Training / Qualification

Human Factors : Time Pressure

Human Factors : Communication Breakdown

Human Factors : Confusion

Communication Breakdown.Party1 : Flight Crew

Communication Breakdown.Party2 : ATC

Person : 2

Location Of Person.Aircraft : X

Location In Aircraft : Flight Deck

Reporter Organization : Air Carrier

Function.Flight Crew : Pilot Not Flying

Function.Flight Crew : First Officer

Qualification.Flight Crew : Multiengine

Qualification.Flight Crew : Air Transport Pilot (ATP)
Qualification.Flight Crew : Instrument
ASRS Report Number.Accession Number : 1813912
Human Factors : Training / Qualification
Human Factors : Time Pressure
Human Factors : Communication Breakdown
Human Factors : Confusion
Communication Breakdown.Party1 : Flight Crew
Communication Breakdown.Party2 : ATC

Events

Anomaly.ATC Issue : All Types
Anomaly.Deviation / Discrepancy - Procedural : Published Material / Policy
Anomaly.Deviation / Discrepancy - Procedural : Clearance
Anomaly.Inflight Event / Encounter : Unstabilized Approach
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 : Human Factors
Contributing Factors / Situations : Procedure
Primary Problem : Human Factors

Narrative: 1

Flight was cleared for approach into Runway XX at ZZZ. After noticing the approach was too high, the flight crew executed a go-around and missed approach. The flight crew then tried to re-establish contact with ATC but was not successful. After reaching missed approach altitude the flight crew decided to turn and make left hand traffic for Runway XX, where we made a visual approach and landing while making position reports on the local CTAF frequency. After landing, it was realized that the flight crew could have potentially violated the proper missed approach procedure or additional approach clearances into ZZZ after not being able to contact ATC. After parking at gate, Captain called ATC via phone to cancel IFR. One possible cause could be the relatively rare experience of flying into an uncontrolled field at night and the procedures that are associated with that. There was also some confusion about the type of approach the flight was cleared to execute, in this case, RNAV or visual approach into Runway XX. We believed we were cleared for the visual approach. However, being unable to contact ATC added confusion and doubt to the situation after landing. Flight delays most likely added stress as well. The first suggestion for future experiences would be to be more mindful and diligent about confirming the type of approach we are cleared to execute. This would have clarified the proper procedure when executing a go-around. A second potential solution would have been to gain altitude in order to try and contact ATC. As for the approach, the flight crew could have requested vectors to leave and then rejoin the approach when the aircraft was at a more appropriate altitude before needing to execute the go-around.

Narrative: 2

After executing the go around, [we] climbed to pattern altitude to make a left traffic pattern instead of executing the published missed approach. [We were] unable to re establish contact with ATC after the go around. [We] did a visual approach to a landing.

Crew believed ATC cleared for visual approach, therefore not requiring the published missed approach. [We should] clarify approach clearance with ATC [next time].

Synopsis

Air Carrier Pilots reported, after an unstable approach at night to an uncontrolled airport, not executing the published missed approach.

Time / Day

Date : 202106

Local Time Of Day : 1801-2400

Place

Locale Reference.Airport : ZZZ.Airport

State Reference : US

Altitude.AGL.Single Value : 0

Environment

Flight Conditions : VMC

Aircraft : 1

Reference : X

ATC / Advisory.Ground : ZZZ

Aircraft Operator : Air Carrier

Make Model Name : Commercial Fixed Wing

Crew Size.Number Of Crew : 2

Operating Under FAR Part : Part 121

Flight Plan : IFR

Flight Phase : Taxi

Aircraft : 2

Reference : Y

Make Model Name : Any Unknown or Unlisted Aircraft Manufacturer

Flight Phase : Final Approach

Person : 1

Location Of Person.Aircraft : X

Location In Aircraft : Flight Deck

Reporter Organization : Air Carrier

Function.Flight Crew : First Officer

Function.Flight Crew : Pilot Not Flying

Experience.Flight Crew.Total : 3138

Experience.Flight Crew.Last 90 Days : 100

Experience.Flight Crew.Type : 3138

ASRS Report Number.Accession Number : 1812914

Human Factors : Communication Breakdown

Human Factors : Confusion

Human Factors : Situational Awareness

Communication Breakdown.Party1 : Flight Crew

Communication Breakdown.Party2 : ATC

Person : 2

Location Of Person.Aircraft : X

Location In Aircraft : Flight Deck

Reporter Organization : Air Carrier

Function.Flight Crew : Captain

Function.Flight Crew : Pilot Flying
Experience.Flight Crew.Total : 14638
Experience.Flight Crew.Last 90 Days : 130
Experience.Flight Crew.Type : 12144
ASRS Report Number.Accession Number : 1812954
Human Factors : Communication Breakdown
Human Factors : Confusion
Human Factors : Situational Awareness
Communication Breakdown.Party1 : Flight Crew
Communication Breakdown.Party2 : ATC

Events

Anomaly.ATC Issue : All Types
Anomaly.Conflict : Ground Conflict, Critical
Detector.Person : Air Traffic Control
When Detected : Taxi
Result.Flight Crew : Executed Go Around / Missed Approach
Result.Air Traffic Control : Issued Advisory / Alert
Result.Air Traffic Control : Separated Traffic
Result.Air Traffic Control : Issued New Clearance

Assessments

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

Narrative: 1

The event happened at night on taxi out from gate to Runway XXL. There were significant amounts of thunderstorms surrounding ZZZ requiring the airport to only have Runway XXL for takeoff and XXR for landing. Upon leaving the ramp area, we were given clearance to taxi to XXL via Taxiways "1" then [Taxiway] "23." We turned north on [Taxiway] "1" and followed a B737. The B737 aircraft stopped holding short of [Taxiway] "23." After about 30 seconds it proceeded and turned onto [Taxiway] 23 and we followed. It was as we turned onto [Taxiway] 23 that both the Captain and I heard the ATC Ground Controller give excited directions to "hurry up/go fast." The key point here is that we never heard our call sign used for any of these calls and assumed he was talking to someone else. As we advanced to a position abeam Runway XXR on our right, the Ground Controller called our call sign and I responded. He then told us, using our call sign, to "go fast, aircraft on short final to Runway XXR." We saw the conflict and tried to move faster but it was too late and the aircraft was forced to execute a go-around. The Controller told us the aircraft had to go-around and chastised us for missing several calls. I responded that we "never heard it." Ultimately, I believe one of two things happened--either the Controller made several excited transmissions either omitting our call sign or used an incorrect call sign, or both the Captain and I missed several radio calls made to us until a conflict happened.

Narrative: 2

We had been reassigned after a long weather delay and misconnect out of ZZZ. We had to consult with dispatch to confirm our clearance and routing. ZZZ ATC had reconfigured airport and were landing and departing runways XXL/R. At spot X we were instructed to taxi to XXL, [Taxiway] 1, [Taxiway] 23. As we approached [Taxiway] 23 a B737 was stopped ahead of us. That aircraft then turned onto [Taxiway] 23. We followed, no instructions to hold short of the XXR approach was given. The Ground Controller then told the B737 to hurry, then told us to hurry and cross XXR approach, saying that we were

expected to hold short of [Taxiway] 23. We were not instructed to hold short of Taxiway 23.

Synopsis

Air carrier flight crew reported not expediting their taxi out resulting in an aircraft on final being instructed to go-around. The flight crew stated ATC was not using their call sign with the instructions to expedite, which contributed to the event.

Time / Day

Date : 202106

Local Time Of Day : 1201-1800

Place

Locale Reference.ATC Facility : ZZZ.ARTCC

State Reference : US

Altitude.MSL.Single Value : 25000

Environment

Flight Conditions : VMC

Light : Daylight

Ceiling : CLR

Aircraft

Reference : X

ATC / Advisory.Center : ZMA

Aircraft Operator : Corporate

Make Model Name : EMB-505 / Phenom 300

Crew Size.Number Of Crew : 2

Operating Under FAR Part : Part 91

Flight Plan : IFR

Mission : Ferry / Re-Positioning

Flight Phase : Climb

Airspace.Class A : ZMA

Person : 1

Location Of Person.Aircraft : X

Location In Aircraft : Flight Deck

Reporter Organization : Corporate

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 : 1812426

Human Factors : Communication Breakdown

Human Factors : Time Pressure

Human Factors : Troubleshooting

Communication Breakdown.Party1 : Flight Crew

Communication Breakdown.Party2 : ATC

Person : 2

Location Of Person.Aircraft : X

Location In Aircraft : Flight Deck

Reporter Organization : Corporate

Function.Flight Crew : Pilot Not Flying

Function.Flight Crew : First Officer

Qualification.Flight Crew : Air Transport Pilot (ATP)

Qualification.Flight Crew : Instrument
Qualification.Flight Crew : Multiengine
ASRS Report Number.Accession Number : 1812427
Human Factors : Communication Breakdown
Human Factors : Time Pressure
Human Factors : Troubleshooting
Communication Breakdown.Party1 : Flight Crew
Communication Breakdown.Party2 : ATC

Events

Anomaly.Aircraft Equipment Problem : Critical
Anomaly.Flight Deck / Cabin / Aircraft Event : Smoke / Fire / Fumes / Odor
Anomaly.Deviation - Altitude : Excursion From Assigned Altitude
Anomaly.Deviation / Discrepancy - Procedural : Clearance
Anomaly.Deviation / Discrepancy - Procedural : Published Material / Policy
Detector.Person : Flight Crew
When Detected : In-flight
Result.General : Maintenance Action
Result.General : Flight Cancelled / Delayed
Result.Flight Crew : Diverted
Result.Flight Crew : Landed in Emergency Condition
Result.Flight Crew : Overcame Equipment Problem
Result.Flight Crew : Requested ATC Assistance / Clarification
Result.Air Traffic Control : Provided Assistance

Assessments

Contributing Factors / Situations : Aircraft
Primary Problem : Aircraft

Narrative: 1

While climbing thru FL250 we began to smell something that resembled an electrical burning type scent, then noticed some faint smoke in the flight deck and cabin area. We immediately accomplished our memory Items for Smoke/Fire/Fumes, which included putting on our oxygen masks, and followed up with the QRH. At this point we leveled off our climb and attempted to communicate with ATC, and changed our transponder code to 7700. An Emergency Descent was initiated, at which point we heard ATC trying to call us. We realized after several attempts to transmit, that ATC was not able to hear us. We then switched to our Secondary Radio and were able to establish communications with ATC. As we were in close proximity and the crew was familiar with the airport, we chose to divert to ZZZ. We had no other indications of smoke or fumes after the initial scent/smoke. We accomplished a landing on runway XX at ZZZ. With no smoke or signs of smoke in the aircraft and Crash/Fire/Rescue reporting no signs outside the aircraft, we taxied to the FBO ramp and shutdown/inspected the aircraft. This event was in an Embraer Phenom 300 (EMB-505).

Narrative: 2

While climbing thru FL250 we began to smell something that resembled an electrical burning and faint smoke in the flight deck and cabin area. We immediately accomplished our memory Items for Smoke/Fire/Fumes, which included putting on our oxygen masks, and followed up with the QRH. At this point we leveled off our climb and attempted to communicate with ATC, and changed our transponder code to 7700. An Emergency Descent was initiated, at which point we heard ATC trying to call us. We realized after

several attempts to transmit, that ATC was not able to hear us. We then switched to our secondary radio and were able to establish communications with ATC. As we were in close proximity and the crew was familiar with the airport, we chose to divert to ZZZ. We had no other indications of smoke or fumes after the initial scent/smoke. We accomplished a landing on runway XX at ZZZ. With no smoke or signs of smoke in the aircraft and Crash/Fire/Rescue reporting no signs outside the aircraft, we taxied to the FBO ramp and shutdown/inspected the aircraft. This was in an Embraer Phenom 300 (EMB-505).

Synopsis

EMB-505 flight crew reported a fume event during initial climb resulted in a diversion.

Time / Day

Date : 202106

Local Time Of Day : 0601-1200

Place

Locale Reference.Airport : EDF.Airport

State Reference : AK

Altitude.MSL.Single Value : 6700

Environment

Flight Conditions : VMC

Light : Daylight

Aircraft

Reference : X

ATC / Advisory.TRACON : A11

Aircraft Operator : Air Carrier

Make Model Name : Commercial Fixed Wing

Crew Size.Number Of Crew : 3

Operating Under FAR Part : Part 121

Flight Plan : IFR

Flight Phase : Descent

Airspace.Class E : ZAN

Person : 1

Location Of Person.Aircraft : X

Location In Aircraft : Flight Deck

Reporter Organization : Air Carrier

Function.Flight Crew : Pilot Flying

Function.Flight Crew : Captain

Qualification.Flight Crew : Multiengine

Qualification.Flight Crew : Air Transport Pilot (ATP)

Qualification.Flight Crew : Instrument

ASRS Report Number.Accession Number : 1812051

Human Factors : Communication Breakdown

Communication Breakdown.Party1 : Flight Crew

Communication Breakdown.Party2 : ATC

Person : 2

Location Of Person.Aircraft : X

Location In Aircraft : Flight Deck

Reporter Organization : Air Carrier

Function.Flight Crew : Relief Pilot

Function.Flight Crew : First Officer

Qualification.Flight Crew : Multiengine

Qualification.Flight Crew : Air Transport Pilot (ATP)

Qualification.Flight Crew : Instrument

ASRS Report Number.Accession Number : 1812052

Human Factors : Communication Breakdown

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

Person : 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
Qualification.Flight Crew : Multiengine
Qualification.Flight Crew : Air Transport Pilot (ATP)
Qualification.Flight Crew : Instrument
ASRS Report Number.Accession Number : 1812053
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 / Discrepancy - Procedural : Published Material / Policy
Anomaly.Deviation / Discrepancy - Procedural : Clearance
Anomaly.Inflight Event / Encounter : CFTT / CFIT
Detector.Automation : Air Traffic Control
Detector.Person : Flight Crew
Detector.Person : Air Traffic Control
When Detected : In-flight
Result.Flight Crew : Returned To Clearance
Result.Flight Crew : Overcame Equipment Problem
Result.Aircraft : Equipment Problem Dissipated

Assessments

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

Narrative: 1

On arrival into EDF we were on ANC Approach. After initial contact, ANC asked what approach we wanted at EDF. The Pilot Monitoring replied the Visual 34. ANC instructed us to turn left heading 260 and descend and maintain 8,000 (we were at 13,000.) While rolling out on a 260 heading and still descending, ANC came back and said they were going to take us the other way and to turn back right heading 330. We rolled out on 330 still descending. At around 9,000 descending, ANC asked us if we wanted Runway 16 and that the winds were 330 at 5. Taking into account our position and high altitude relative to EDF Runway 34 and our weight, I decided that this would be acceptable, but wanted the IRO to double check the numbers before accepting this change. I said "standby" and the Pilot Monitoring transmitted "standby" to ANC. ANC immediately instructed us to descend and maintain 3,000. At the same time of ANC transmission, we were leveling at 8,000, and I was asking the IRO to run the numbers for 16. The Pilot Monitoring replied "3,000, Aircraft X". I reset the altitude selector to 3,000, verified the altitude with the Pilot Monitoring, engaged FLC, set speed and we began to descend. This clearance seemed logical considering we were clearing terrain, there was no traffic on TCAS, no terrain indicating on the HSI (I was in terrain mode) and we needed to lose altitude to make the

airport. There was no further contact with ANC ATC until they instructed us to maintain 8,000. Descending through approximately 6,700, ANC contacted us and instructed us to maintain 8,000, low alt alert and that the MVA in that area was 8,000. After landing and block in, I was notified by EDF Tower (via the military) that ANC TRACON wanted me to give them a call (which I did after speaking to the Chief Pilot.) They took my info and said he would be forwarding to quality control (assurance?) and they may contact me as they were looking into it. There was either an error by ANC Approach or we mistook instructions for another aircraft. After the flight while discussing with the crew, myself and the Pilot Monitoring thought we heard the same instructions. Considering we may have accepted a clearance for another aircraft on frequency, I later looked at the flights in and out of ANC at the same time. There was another flight that arrived in ANC shortly after we landed. It is possible that the instruction were meant for them. It is also possible instructions were meant for an entirely different aircraft and we mistook it for us. There was high workload at the time while considering a runway change, configuring the aircraft and checking landing data. The Pilot Monitoring immediately replied to maintain 8,000. I rolled the altitude selector back to 8,000, clicked off the autopilot, added power and hand flew the airplane back to 8,000 and then reengaged the autopilot. If in fact we did accept a clearance from a different aircraft, caution must be used when similar flight numbers are on the same transmitting frequency, especially during high work loads. Unfortunately, we were unaware of the other aircraft at the time of the event.

Narrative: 2

As International Relief Officer, I heard ATC instruct us to descend to 3,000 feet. Pilot Monitoring (PM) readback 3,000 feet on the radio to ATC. Pilot Flying (PF) entered 3,000 feet into MCP. PM acknowledged the entry of 3,000 feet into MCP. As aircraft descended below 8,000 feet, ATC instructed us to go back to 8,000 feet. PF reset 8,000 feet in MCP and flew aircraft to 8,000 feet. After landing, PIC was instructed to phone call ATC when he was informed that we flew below the instructed altitude of 8,000 feet. It is possible that we heard and responded to an altitude instruction for another aircraft. However, PM did read back the altitude and wasn't, subsequently, corrected. The situation was corrected quickly after being instructed to do so. The conditions were VMC. There were no terrain hazards at our altitude. There didn't appear to be any traffic conflicts.

Narrative: 3

Based on what I can remember. I was the pilot monitoring/not flying. Also the pilot handling the radio and radio calls. We received a descent to 8,000 feet which I responded to ATC. Both crews verified 8,000 feet in the altitude selector and the Captain started the descent. We initially were set up for a visual approach for PAED Runway 34. ATC gave us an initial heading to I believe 260. I responded and the Captain started the turn. During the turn we were ask if we wanted Runway 16 instead. The Captain told me to tell ATC standby which I relayed. I remember the Captain asking the Relief Officer to run the performance numbers for Runway 16. We then were giving an instruction to turn to the right heading 330 which I responded to ATC. I don't remember when we accepted the runway change to 16, but I do remember specifically ATC instructing us to descent to 3,000 ft. Which I then responded "Descent to 3,000 ft Aircraft X" I watched the Captain put 3,000 feet in the altitude selector and I verified it. During our continue descent ATC instructed us to climb back immediately to 8,000 ft. I then looked at our attitude and noticed we were somewhere around 7,000 ft. The Captain immediately turned off the autopilot and started complying with ATC instructions. We then leveled off at 8,000 ft. The entire crew heard the specific clearance descent to 3,000 ft so we all thought we were in compliance. It was not until ATC told us to re-climb did we detect anything. I specifically remember hearing the Aircraft X call sign being instructed to descend to 3000 ft. I

responded to ATC instructions over the radio "Descend to 3,000 feet Aircraft X" and received no corrections from ATC. During that specific time the workload started to increase dramatically. We were getting several descents and turn instructions at the same time. Also now we were dealing with a runway change scenario below 10,000 feet. We immediately responded to ATC instructions and re-climbed back to the assigned altitude. I honestly don't know what happened because I am sure I heard the "descent to 3,000 feet" instructions which I replied. If there was another similar call sign within the vicinity I believe ATC should have notified us.

Synopsis

Air carrier flight crew reported a CFIT event during approach due to a communication breakdown between ATC and flight crew.

Time / Day

Date : 202106

Local Time Of Day : 0601-1200

Place

Locale Reference.ATC Facility : ZZZ.ARTCC

State Reference : US

Aircraft

Reference : X

ATC / Advisory.Center : ZZZ

Aircraft Operator : Air Carrier

Make Model Name : B737-800

Crew Size.Number Of Crew : 2

Operating Under FAR Part : Part 121

Flight Plan : IFR

Mission : Passenger

Flight Phase : Cruise

Airspace.Class A : ZZZ

Component

Aircraft Component : Data Transmission and Automatic Calling

Aircraft Reference : X

Problem : Malfunctioning

Person : 1

Location Of Person.Aircraft : X

Location In Aircraft : Flight Deck

Reporter Organization : Air Carrier

Function.Flight Crew : Pilot Flying

Function.Flight Crew : Captain

Qualification.Flight Crew : Instrument

Qualification.Flight Crew : Multiengine

ASRS Report Number.Accession Number : 1811848

Human Factors : Communication Breakdown

Human Factors : Human-Machine Interface

Communication Breakdown.Party1 : Flight Crew

Communication Breakdown.Party2 : ATC

Person : 2

Location Of Person.Aircraft : X

Location In Aircraft : Flight Deck

Reporter Organization : Air Carrier

Function.Flight Crew : First Officer

Function.Flight Crew : Pilot Not Flying

Qualification.Flight Crew : Multiengine

Qualification.Flight Crew : Instrument

Qualification.Flight Crew : Air Transport Pilot (ATP)

ASRS Report Number.Accession Number : 1811860

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

Events

Anomaly.Aircraft Equipment Problem : Less Severe
Anomaly.ATC Issue : All Types
Anomaly.Deviation / Discrepancy - Procedural : Published Material / Policy
Anomaly.Deviation / Discrepancy - Procedural : Clearance
Detector.Automation : Aircraft Other Automation
When Detected : In-flight
Result.Flight Crew : FLC complied w / Automation / Advisory

Assessments

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

Narrative: 1

We received a request to go direct to ZZZZZ. Dispatch had filed us on a southerly track to avoid significant weather on the H-track. The only options given were to accept or standby. We were not going to accept the re-route so we hit standby. The standby was accepted. We sent a message that we could climb instead of a re-route and ATC gave us a climb. Sometime later, the re-route request showed up again but this time the only option we were given was to accept. We ignored the request but that left the ATC icon up on the Upper DU [Display Unit] (so future ATC alerts may not be noticed). This annoyed me so after crossing ZZZZZ1 we noted that accepting the persistent direct routing request would only bypass our next waypoint by about 10 NM. I accepted the ATC routing but waited for a reply from ATC before proceeding. ATC responded with ROGER. So, we went direct ZZZZZ per the clearance. ATC then sent a message asking us to confirm request. We never sent any request so we followed up with a direct message stating we were accepting the previous direct routing from ATC. Shortly thereafter we asked to call ZZZ Center. I talked with the controller and explained the situation. He closed it out on his end with no action but quality control will still review. With CPDLC, ATC cannot ask a question but only provide one answer (accept). That leaves us with an open request.

Narrative: 2

There should be a CPDLC option to accept, reject, or standby. Not just accept or standby. If you don't accept, the message stays open, and the ATC alert never extinguishes. This could cause a future message to be missed.

Synopsis

B737-800 air carrier flight crew reported accepting a reroute clearance on CPDLC that they had initially put on standby.

Time / Day

Date : 202105

Local Time Of Day : 0601-1200

Place

Locale Reference.Airport : ZZZZ.Airport

State Reference : FO

Altitude.AGL.Single Value : 0

Aircraft

Reference : X

ATC / Advisory.Tower : ZZZZ

Aircraft Operator : Air Carrier

Make Model Name : Commercial Fixed Wing

Crew Size.Number Of Crew : 2

Operating Under FAR Part : Part 121

Flight Plan : IFR

Mission : Passenger

Flight Phase : Landing

Flight Phase : Taxi

Person : 1

Location Of Person.Aircraft : X

Location In Aircraft : Flight Deck

Reporter Organization : Air Carrier

Function.Flight Crew : Captain

Function.Flight Crew : Pilot Flying

Qualification.Flight Crew : Multiengine

Qualification.Flight Crew : Instrument

Qualification.Flight Crew : Air Transport Pilot (ATP)

ASRS Report Number.Accession Number : 1810906

Human Factors : Communication Breakdown

Human Factors : Workload

Communication Breakdown.Party1 : Flight Crew

Communication Breakdown.Party2 : ATC

Person : 2

Location Of Person.Aircraft : X

Location In Aircraft : Flight Deck

Reporter Organization : Air Carrier

Function.Flight Crew : First Officer

Function.Flight Crew : Pilot Flying

Qualification.Flight Crew : Multiengine

Qualification.Flight Crew : Instrument

Qualification.Flight Crew : Air Transport Pilot (ATP)

ASRS Report Number.Accession Number : 1810917

Human Factors : Communication Breakdown

Human Factors : Workload

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

Events

Anomaly.ATC Issue : All Types
Anomaly.Deviation / Discrepancy - Procedural : Clearance
Anomaly.Ground Incursion : Taxiway
Detector.Person : Air Traffic Control
When Detected : Taxi
Result.General : None Reported / Taken

Assessments

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

Narrative: 1

First Officer's landing. After touchdown and roll out to the end, we were issued taxi instructions while still on the runway and during transfer of control from FO to Captain for taxi. I heard taxi Alpha to the gate which I read back. As we turned across the hard stand for gate X from Alpha the controller informed us we had been instructed to taxi Alpha Fox. [The cause was] Task saturation. Controllers should not issue taxi instructions until clear of runway. Busy airports should have a standard and understood initial taxi route so that you have time to clear the runway and listen to further instructions. Maybe they could be depicted on the approach plate or in the airport diagram or the controller could issue with landing clearance.

Narrative: 2

On the landing roll out while we were transferring controls we were issued a taxi clearance to gate X. The Captain still had the radios as we were decelerating through about 80 knots. He responded to the radio call and I can clearly remember him saying taxi to the gate via Alpha. There was no correction from ATC so we taxied to the gate. As we crossed the ramp area the Controller advised us the instructions were Alpha Echo Foxtrot. We apologize and proceeded to the gate with no further issues. The inability to hear the controllers instructions clearly at a busy time in the landing roll out combined with the lack of correction by ATC when our read back was incorrect. In the future I will restate the instructions from ATC once I have the radios on the ground after the roll out is complete. I will also plan not to respond the ATC during task saturation like this.

Synopsis

Air carrier flight crew reported a taxiway incursion occurred after ATC issued taxi instructions while the aircraft was still decelerating on the landing roll and the crew was unable to hear instructions clearly during that "busy time."

Time / Day

Date : 202105

Local Time Of Day : 0601-1200

Place

Locale Reference.ATC Facility : Y90.TRACON

State Reference : CT

Relative Position.Angle.Radial : 330

Relative Position.Distance.Nautical Miles : 5

Altitude.MSL.Single Value : 1500

Environment

Flight Conditions : VMC

Weather Elements / Visibility.Visibility : 30

Light : Daylight

Ceiling.Single Value : 7500

Aircraft

Reference : X

ATC / Advisory.TRACON : Y90

Aircraft Operator : FBO

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

Crew Size.Number Of Crew : 2

Operating Under FAR Part : Part 91

Flight Plan : None

Mission : Training

Flight Phase : Descent

Route In Use : Direct

Airspace.Class C : BDL

Person : 1

Location Of Person.Aircraft : X

Reporter Organization : FBO

Function.Flight Crew : Instructor

Function.Flight Crew : Pilot Not Flying

Qualification.Flight Crew : Air Transport Pilot (ATP)

Qualification.Flight Crew : Flight Instructor

Qualification.Flight Crew : Instrument

Qualification.Flight Crew : Multiengine

Experience.Flight Crew.Total : 6065

Experience.Flight Crew.Last 90 Days : 80

Experience.Flight Crew.Type : 2790

ASRS Report Number.Accession Number : 1809353

Human Factors : Confusion

Human Factors : Distraction

Human Factors : Communication Breakdown

Communication Breakdown.Party1 : Flight Crew

Communication Breakdown.Party2 : ATC

Person : 2

Location Of Person.Aircraft : X
Location In Aircraft : Flight Deck
Reporter Organization : FBO
Function.Flight Crew : Single Pilot
Function.Flight Crew : Pilot Flying
Qualification.Flight Crew : Multiengine
Qualification.Flight Crew : Flight Instructor
Qualification.Flight Crew : Air Transport Pilot (ATP)
Qualification.Flight Crew : Instrument
Experience.Flight Crew.Total : 1700
Experience.Flight Crew.Last 90 Days : 10
Experience.Flight Crew.Type : 250
ASRS Report Number.Accession Number : 1809374
Human Factors : Communication Breakdown
Human Factors : Distraction
Human Factors : Time Pressure
Human Factors : Troubleshooting
Human Factors : Confusion
Communication Breakdown.Party1 : Flight Crew
Communication Breakdown.Party2 : ATC

Events

Anomaly.Airspace Violation : All Types
Anomaly.ATC Issue : All Types
Anomaly.Deviation / Discrepancy - Procedural : Published Material / Policy
Detector.Person : Flight Crew
When Detected : In-flight
Result.General : None Reported / Taken

Assessments

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

Narrative: 1

ZZZ is [near] the BDL 5 nm Class C surface area. During a training flight while returning to ZZZ from BAF, we were using flight following from Y90 TRACON and squawking a discrete code. We were in the Class E airspace beneath the 2,100 MSL shelf of the Class C. As we approached our destination, ATC told us "Radar services terminated, squawk 1200, frequency change approved." At this time, we were approximately 1 mile from the Class C surface area. Given our trajectory, it was obvious to the Controller that we were headed direct to our destination and would enter the Class C airspace. Since we were in communication with Y90 and had not been advised to change course or remain clear of the Class C airspace, we assumed that we were cleared into the Class C surface area. We continued into Class C surface area and landed. TRACON usually either advises us to remain clear of the Class C surface area or switches us to the tower frequency. We did not conflict with other traffic in the area as traffic departing BDL was turning away from us and climbing well above our altitude. We were later advised that there could have been an incursion into the Class C airspace. This could have been avoided if we had questioned the Controller to confirm that [we] were cleared into the Class C surface area. We also could

have not assumed that we were cleared into the Class C Surface area and altered course to remain clear. The Controller could have told us to remain clear of the Class C airspace or switched us to tower frequency rather than terminating radar services.

Narrative: 2

During a training flight to ZZZ from BAF we were using flight following from BDL TRACON and squawking a discrete code. We were in the Class E airspace beneath the 2100 MSL shelf of the Class C. As we approached our destination, which is located [near] the BDL Class C surface area, ATC told us "Radar services terminated, squawk VFR, frequency change approved." At this time, we were just outside the Class C surface area. Given our direct trajectory to ZZZ, and the fact that we had communicated this was our intention to both BDL TRACON (and prior to that, the BAF Tower), we thought it was obvious to the Controller that we were headed directly to our destination and would imminently enter the Class C surface area airspace. This was because we were in communication with BDL TRACON and had not been advised to change course or remain clear of the Class C airspace. This was (in hindsight) a possibly incorrect assumption on our behalf that we were cleared into the Class C surface area. As such, we continued into the Class C surface area and landed. In the past, TRACON BDL has usually either advised us to remain clear of the Class C surface area or has switched us to the BDL tower frequency if they did not want us to pursue a direct route from BAF to ZZZ. We were later advised by BDL Tower (not BDL TRACON) that there could have been an incursion into the Class C airspace. My learning: this could have been avoided if we had questioned the BDL TRACON Controller to confirm that we were indeed cleared into the Class C surface area. We should also have not assumed that we were cleared into the Class C Surface area and we should have altered our direct course to remain clear. I do realize that the BDL TRACON Controller could have told us to remain clear of the Class C airspace or switched us to BDL Tower frequency rather than terminating radar services, but I have to focus on what I can directly control in the future in order to remain a safe pilot.

Synopsis

Pilot reported confusion about whether or not they had clearance into a Class Charlie airspace while under flight following, and a quick termination within 1 mile of the Class Charlie airspace.

Time / Day

Date : 202105

Local Time Of Day : 0601-1200

Place

Locale Reference.Airport : LAS.Airport

State Reference : NV

Environment

Light : Daylight

Aircraft

Reference : X

ATC / Advisory.Tower : LAS

Aircraft Operator : Air Carrier

Make Model Name : B737 Undifferentiated or Other Model

Crew Size.Number Of Crew : 2

Operating Under FAR Part : Part 121

Mission : Passenger

Flight Phase : Taxi

Person : 1

Location Of Person.Aircraft : X

Location In Aircraft : Flight Deck

Reporter Organization : Air Carrier

Function.Flight Crew : Pilot Flying

Function.Flight Crew : Captain

Qualification.Flight Crew : Instrument

Qualification.Flight Crew : Multiengine

Qualification.Flight Crew : Air Transport Pilot (ATP)

Experience.Flight Crew.Last 90 Days : 150

Experience.Flight Crew.Type : 4000

ASRS Report Number.Accession Number : 1807917

Human Factors : Distraction

Human Factors : Situational Awareness

Human Factors : Communication Breakdown

Communication Breakdown.Party1 : Flight Crew

Communication Breakdown.Party2 : ATC

Person : 2

Location Of Person.Aircraft : X

Location In Aircraft : Flight Deck

Reporter Organization : Air Carrier

Function.Flight Crew : First Officer

Function.Flight Crew : Pilot Not Flying

Qualification.Flight Crew : Multiengine

Qualification.Flight Crew : Air Transport Pilot (ATP)

Qualification.Flight Crew : Instrument

Experience.Flight Crew.Last 90 Days : 250

Experience.Flight Crew.Type : 11500
ASRS Report Number.Accession Number : 1807923
Human Factors : Distraction
Human Factors : Situational Awareness
Human Factors : Communication Breakdown
Communication Breakdown.Party1 : Flight Crew
Communication Breakdown.Party2 : ATC

Events

Anomaly.Conflict : Ground Conflict, Less Severe
Anomaly.Deviation / Discrepancy - Procedural : Published Material / Policy
Anomaly.Deviation / Discrepancy - Procedural : Clearance
Anomaly.Ground Event / Encounter : Person / Animal / Bird
Detector.Person : Air Traffic Control
When Detected.Other
Result.Flight Crew : FLC complied w / Automation / Advisory

Assessments

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

Narrative: 1

Exiting Runway 26L onto A6, the Tower Controller issued an alert for wildlife on Runway 26R. I instinctively slowed my taxi speed and came to a gradual stop on the high speed exit and began to scan for any hazards. After 20-30 seconds, with no further instructions for us, we heard the Controller send Company around. He then explained that we had not completely cleared the hold short line, then cleared us to cross [Runway] 26R and contact Ground. Improve distraction management discipline by assuring thorough completion of the task at hand, at the time of the distraction, before diverting attention to the threat. Consciously heighten situational awareness of aircraft state and location in the knowledge that situational awareness invariably breaks down in any non-normal situation. Also, actively solicit fellow Crew Member input for back up in this process.

Narrative: 2

Exiting Runway 26L onto A5, the Tower issued a wildlife alert on Runway 26R. Captain then brought the aircraft to a stop while we looked for animals /hazards. After about 20 seconds with no Tower instructions, we heard Tower send Company aircraft around. He then said we had not fully cleared the runway hold short line and proceeded to clear us to cross 26R and contact Ground. Improve distraction management by assuring task at hand (clearing runway) is finished before diverting attention to the threat.

Synopsis

Air carrier flight crew reported runway incursion after landing.

Time / Day

Date : 202105

Local Time Of Day : 1201-1800

Place

Locale Reference.Airport : LAX.Airport

State Reference : CA

Relative Position.Distance.Nautical Miles : 35

Altitude.MSL.Single Value : 10000

Environment

Light : Daylight

Aircraft : 1

Reference : X

ATC / Advisory.TRACON : SCT

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 : Initial Approach

Airspace.Class B : LAX

Aircraft : 2

Reference : Y

ATC / Advisory.TRACON : SCT

Aircraft Operator : Air Carrier

Make Model Name : B777 Undifferentiated or Other Model

Crew Size.Number Of Crew : 2

Operating Under FAR Part : Part 121

Flight Plan : IFR

Flight Phase : Initial Approach

Airspace.Class B : LAX

Person : 1

Location Of Person.Aircraft : X

Location In Aircraft : Flight Deck

Reporter Organization : Air Carrier

Function.Flight Crew : Pilot Flying

Function.Flight Crew : Captain

Qualification.Flight Crew : Multiengine

Qualification.Flight Crew : Air Transport Pilot (ATP)

Qualification.Flight Crew : Instrument

Experience.Flight Crew.Last 90 Days : 85

ASRS Report Number.Accession Number : 1807908

Human Factors : Communication Breakdown

Communication Breakdown.Party1 : Flight Crew

Communication Breakdown.Party2 : ATC
Analyst Callback : Attempted

Person : 2

Location Of Person.Aircraft : X
Location In Aircraft : Flight Deck
Reporter Organization : Air Carrier
Function.Flight Crew : First Officer
Function.Flight Crew : Pilot Not Flying
Qualification.Flight Crew : Multiengine
Qualification.Flight Crew : Instrument
Qualification.Flight Crew : Air Transport Pilot (ATP)
Experience.Flight Crew.Last 90 Days : 55
ASRS Report Number.Accession Number : 1807909
Human Factors : Communication Breakdown
Communication Breakdown.Party1 : Flight Crew
Communication Breakdown.Party2 : ATC

Events

Anomaly.ATC Issue : All Types
Anomaly.Flight Deck / Cabin / Aircraft Event : Illness / Injury
Anomaly.Deviation - Speed : All Types
Anomaly.Deviation / Discrepancy - Procedural : Published Material / Policy
Anomaly.Deviation / Discrepancy - Procedural : Clearance
Anomaly.Inflight Event / Encounter : Wake Vortex Encounter
Detector.Person : Air Traffic Control
When Detected : In-flight
Result.Flight Crew : Requested ATC Assistance / Clarification
Result.Flight Crew : Became Reoriented
Result.Air Traffic Control : Issued New Clearance

Assessments

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

Narrative: 1

We had been cleared the ILS 25L Approach while on the ANJLL Arrival and assigned 250 knots. At about 12,000 feet, we got a call from the cabin that the passenger we had called STAT-MD for earlier in the flight, was feeling worse. I asked the First Officer to call OPS for medical assistance to meet us at the gate. When he returned back to the ATC frequency, we were approaching 10,000 feet and hit wake turbulence sufficiently strong to cause the airplane to go into control wheel pitch and roll. I redirected the aircraft to KRAIN, re-engaged LNAV and VNAV, and asked ATC what we were following. I was told we were following nothing. This didn't make sense since we had just hit very strong wake turbulence. While established on final, ATC told us to slow to 170 knots. This surprised both of us, because the last speed assignment we recalled being given was 250 knots. 170 knots would be a huge speed reduction and we were still about 25 miles out. ATC then asked us if we were at 210 knots. We told the Controller no, and that we had been assigned 250 knots. He told us we had been instructed to slow to 210 knots back when we complained about the wake turbulence (approaching 10,000 feet). We were now

overtaking a B777 ahead, so our approach clearance was canceled. We were given vectors for spacing and vectored back onto the localizer and then re-cleared the ILS 25L. Neither the First Officer nor I recall hearing the 210 knot speed assignment. We had only heard 250 knots and read that back. The 210-knot speed assignment probably occurred about the time the Flight Attendant called us about the passenger feeling ill again and just as we hit the wake turbulence.

Narrative: 2

A bunch of things happened at once which led to us missing a slower speed assignment. On the arrival to LAX, cleared the approach to 25L and told to maintain 250 knots. The flight attendant called up and said that our previous medical issue in the back (we had earlier talked to STAT-MD and gotten clearance to continue) was not feeling well again, and asked for paramedics. As the Pilot Monitoring, I called OPS at LAX, to arrange for emergency personnel - meaning I was off frequency. At the same time, we encountered wake turbulence, strong enough to knock the aircraft out of both LNAV/VNAV. The Captain, Pilot Flying, reported the wake turbulence to Approach, after getting the aircraft established on profile; apparently ATC told us to slow to 210 knots. Neither of us heard or read back the speed change. A few miles later Approach canceled our approach clearance and said we were too fast. We responded that we were assigned 250. They said no, we were given 210.

Synopsis

B737-700 flight crew reported missing an ATC speed assignment on arrival into LAX when they were distracted by a wake turbulence encounter in trail of a heavy B777.

Time / Day

Date : 202105

Local Time Of Day : 1201-1800

Place

Locale Reference.Airport : ZZZ.Airport

State Reference : US

Altitude.AGL.Single Value : 0

Aircraft : 1

Reference : X

ATC / Advisory.Ground : ZZZ

Aircraft Operator : Air Carrier

Make Model Name : Commercial Fixed Wing

Crew Size.Number Of Crew : 2

Operating Under FAR Part : Part 121

Flight Plan : IFR

Mission : Passenger

Flight Phase : Taxi

Aircraft : 2

Reference : Y

ATC / Advisory.Ground : ZZZ

Aircraft Operator : Air Carrier

Make Model Name : Commercial Fixed Wing

Crew Size.Number Of Crew : 2

Operating Under FAR Part : Part 121

Flight Plan : IFR

Mission : Passenger

Flight Phase : Taxi

Person : 1

Location Of Person.Aircraft : X

Location In Aircraft : Flight Deck

Reporter Organization : Air Carrier

Function.Flight Crew : Pilot Flying

Function.Flight Crew : First Officer

Qualification.Flight Crew : Multiengine

Qualification.Flight Crew : Air Transport Pilot (ATP)

Qualification.Flight Crew : Instrument

ASRS Report Number.Accession Number : 1804780

Human Factors : Communication Breakdown

Communication Breakdown.Party1 : Flight Crew

Communication Breakdown.Party2 : ATC

Person : 2

Location Of Person.Aircraft : X

Location In Aircraft : Flight Deck

Reporter Organization : Air Carrier

Function.Flight Crew : Pilot Not Flying
Function.Flight Crew : Captain
Qualification.Flight Crew : Multiengine
Qualification.Flight Crew : Air Transport Pilot (ATP)
Qualification.Flight Crew : Instrument
ASRS Report Number.Accession Number : 1804781
Human Factors : Communication Breakdown
Communication Breakdown.Party1 : Flight Crew
Communication Breakdown.Party2 : ATC

Events

Anomaly.ATC Issue : All Types
Anomaly.Conflict : Ground Conflict, Critical
Anomaly.Deviation / Discrepancy - Procedural : Published Material / Policy
Detector.Person : Flight Crew
When Detected : Taxi
Result.General : Flight Cancelled / Delayed
Result.General : Physical Injury / Incapacitation
Result.Flight Crew : Overcame Equipment Problem
Result.Flight Crew : Took Evasive Action
Result.Air Traffic Control : Issued New Clearance

Assessments

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

Narrative: 1

We were waiting at spot XX along with another aircraft at spot XX1. Spot XX1 was cleared to taxi, and shortly after that we were instructed to taxi to [runway] XXR via Kilo. We were told the aircraft on our right waits for us. The aircraft to the right did yield and we started to pull out of spot XX to make a left turn onto Kilo. I looked right and then left and saw the aircraft that exited spot XX1 turn right onto Kilo. As we were turning left I called out "stop, stop, stop." The Captain stopped the aircraft quickly. There was room for the plane from spot XX1 to continue taxiing. The Ground Controller then stated to give way and that he meant to tell us the plane at XX1 was going the opposite direction on Kilo to join Lima to XXR. Neither of us were aware of that when it occurred. The Captain called the Flight Attendants to check on them and one said that she fell into a wall in the galley, but wanted to continue with the flight to ZZZ1. The same Flight Attendant stated to the Captain in ZZZ1 that she was fit to fly back to ZZZ. [Reporter added incident was due to] Poor taxi instructions given by ZZZ Ground Control. We never should have been cleared to taxi until the traffic from spot XX had cleared us going the opposite direction, or our clearance to taxi should have included to give way to opposite direction traffic from spot XX1.

Narrative: 2

We were positioned at ZZZ ramp spot XX. An aircraft at spot XX1 was cleared to taxi to [runway] XXR, but I wasn't paying attention to his routing. I thought I heard via "Kilo." Immediately after that, we were cleared to [runway] XXR via Kilo, and told an airplane on Kilo to our right waits on us. The airplane at spot XX1 began taxiing and I began my taxi so as to be in front of the airplane on our right that was taxiing, but waiting on us. I can't be positive, and it may have been just my expectation, but I thought I saw the airplane from spot XX1 (on our left now) start a left turn on Kilo. With him safely in front of us (I

thought), I briefly looked down at the FMC then to my right to make sure we were clear of the airplane on Kilo. The First Officer then said, "stop, stop, stop." The aircraft from spot XX1 had turned to the right not left, and was now right in front of us. He had been cleared to the runway via Kilo, K5, Lima. We had not been moving very fast since we had just left spot XX, but I applied the brakes quickly to ensure safe separation. This, I learned later, had caused our number one Flight Attendant, who I did not know was standing, to lose her balance and fall against the galley area. Ground Control then apologized for not letting us know, or to give way. We continued to the runway and I spoke with the crew to make sure they were okay, our number one especially. They all said they were okay and that they were good to continue to ZZZ1. In flight, the number one Flight Attendant told me she wanted to file an injury on duty report. I was very concerned for her at that point, but she said she was just a little sore, she could perform all her duties, and we would be okay to continue. I concurred with her that it would be safe to continue to ZZZ1. We were scheduled to turn around and fly back to ZZZ. I was still very concerned, so I asked the number one to coordinate with her supervisor and get guidance since she wanted to also fly back to ZZZ. I called safety to get guidance as well. Our Flight Attendant stated she was fine to fly back and could perform any and all her duties. After observing, and speaking with her, the First Officer and I both concurred with her assessment that it was safe and reasonable to continue. We landed uneventfully in ZZZ and a team member met the airplane for our number one.

Synopsis

Flight crew reported a critical ground conflict due to a communications breakdown between Ground Control and flight crew.

Time / Day

Date : 202105

Local Time Of Day : 1201-1800

Place

Locale Reference.ATC Facility : ZZZ.ARTCC

State Reference : US

Environment

Flight Conditions : IMC

Light : Daylight

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

Nav In Use : GPS

Flight Phase : Climb

Route In Use : Vectors

Airspace.Class E : ZZZ

Component

Aircraft Component : VHF

Aircraft Reference : X

Problem : Malfunctioning

Person : 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 : Instrument

Qualification.Flight Crew : Air Transport Pilot (ATP)

ASRS Report Number.Accession Number : 1804737

Human Factors : Communication Breakdown

Human Factors : Troubleshooting

Communication Breakdown.Party1 : Flight Crew

Communication Breakdown.Party2 : ATC

Person : 2

Location Of Person.Aircraft : X
Location In Aircraft : Flight Deck
Reporter Organization : Air Carrier
Function.Flight Crew : First Officer
Function.Flight Crew : Pilot Flying
Qualification.Flight Crew : Multiengine
Qualification.Flight Crew : Instrument
Qualification.Flight Crew : Air Transport Pilot (ATP)
ASRS Report Number.Accession Number : 1804742
Human Factors : Communication Breakdown
Human Factors : Troubleshooting
Communication Breakdown.Party1 : Flight Crew
Communication Breakdown.Party2 : ATC

Events

Anomaly.Aircraft Equipment Problem : Critical
Anomaly.Deviation / Discrepancy - Procedural : Published Material / Policy
Anomaly.Deviation / Discrepancy - Procedural : Clearance
Detector.Person : Flight Crew
Were Passengers Involved In Event : N
When Detected : Pre-flight
Result.General : Flight Cancelled / Delayed
Result.General : Maintenance Action
Result.Flight Crew : Overcame Equipment Problem
Result.Flight Crew : Landed in Emergency Condition
Result.Flight Crew : Requested ATC Assistance / Clarification
Result.Air Traffic Control : Provided Assistance

Assessments

Contributing Factors / Situations : Aircraft
Primary Problem : Aircraft

Narrative: 1

On Departure out of ZZZ the crew experienced significant audio distortions on COMM 1. Switched to COMM 2. In the vicinity of ZZZ1 contact was lost with ATC for a period of approximately 10 minutes. ACARS was also lost at this time. Upon reestablishing contact ATC was able to hear the crew loud and clear but on board the ability to receive ATC transmissions was significantly degraded and there was significant static and noise on both frequencies. As the flight progressed the quality of the reception continued to degrade and COMM 1 became completely unusable. The QRH was run and the MEL, FOM and AOM (Aircraft Operation Manual) were utilized. The decision was made to Identify as an emergency and continue to the planned destination. Due to the inability to contact the company, ATC was requested to tell the company of the communication issue. As the flight progressed the quality of the reception continued to degrade on COMM 2 until it was barely usable. Upon entering the approach segment of the flight NAV 1 and 2 provided unreliable lateral and vertical information. The flight concluded safely at the destination. Flight crew that handed off the aircraft noted issues with the ACARS no other pertinent information was provided by the crew as they departed. ACARS was usable for the preflight and initial departure portion of the flight. The cause of the radio communications failure is not known by this crew member at this point in time. Air traffic control was very professional and they were immensely helpful and indispensable throughout the event.

Narrative: 2

While departing ZZZ, on climb out and then more noticeable as we neared ZZZ1, static / screeching distortions were noted on COMM 1. At least three times, we asked ATC how they heard us, and the reply was 5x5. We could hear ATC at a 2 or 3. We advised ATC of this. Conditions deteriorated throughout the flight, causing us to utilize COMM 2 as primary. After a short period, COMM 2 began a degradation similar to COMM 1. All flight instrumentation, engine gauges, etc. showed normal parameters. QRH / FOM checked, Captain and I monitored and with COMM 2 not improving, and notification updated information to ATC, Identified as an emergency. Plan and back up plans were made by crew, flight attendants briefed, company notified. Flight continued with no further issues. It should be noted that during a period of time, no COMMS were heard, and we queried ATC to make sure we had not lost all communication. Additionally on approach (visual conditions) both lateral and vertical guidance was observed unreliable. Furthermore upon accepting the aircraft from the previous crew, the Captain noted issues with the "ACARS" noting we may have to reset the ACARS. The cause of the action is outside of the scope of this crew member. ATC was outstanding. Helpful professional and went above and beyond.

Synopsis

Flight Crew reported both VHF communication systems malfunctioned, and they elected to continue to destination airport.

Time / Day

Date : 202104

Local Time Of Day : 0601-1200

Place

Locale Reference.Airport : DAL.Airport

State Reference : TX

Altitude.AGL.Single Value : 0

Environment

Flight Conditions : Mixed

Weather Elements / Visibility.Visibility : 7

Light : Daylight

Ceiling.Single Value : 3000

Aircraft : 1

Reference : X

ATC / Advisory.Ground : DAL

ATC / Advisory.Tower : DAL

Aircraft Operator : Air Carrier

Make Model Name : Commercial Fixed Wing

Crew Size.Number Of Crew : 2

Operating Under FAR Part : Part 121

Flight Plan : IFR

Mission : Passenger

Nav In Use : GPS

Nav In Use : FMS Or FMC

Flight Phase : Taxi

Aircraft : 2

Reference : Y

ATC / Advisory.Ground : DAL

ATC / Advisory.Tower : DAL

Aircraft Operator : Air Carrier

Make Model Name : Commercial Fixed Wing

Crew Size.Number Of Crew : 2

Operating Under FAR Part : Part 121

Flight Plan : IFR

Nav In Use : GPS

Nav In Use : FMS Or FMC

Flight Phase : Taxi

Person : 1

Location Of Person.Aircraft : X

Location In Aircraft : Flight Deck

Function.Flight Crew : Pilot Not Flying

Function.Flight Crew : First Officer

Qualification.Flight Crew : Instrument

Qualification.Flight Crew : Multiengine

Qualification.Flight Crew : Air Transport Pilot (ATP)
Experience.Flight Crew.Last 90 Days : 180
ASRS Report Number.Accession Number : 1804662
Human Factors : Confusion
Human Factors : Distraction
Human Factors : Communication Breakdown
Communication Breakdown.Party1 : Flight Crew
Communication Breakdown.Party2 : ATC

Person : 2

Location Of Person.Aircraft : X
Location In Aircraft : Flight Deck
Reporter Organization : Air Carrier
Function.Flight Crew : Pilot Flying
Function.Flight Crew : Captain
Qualification.Flight Crew : Multiengine
Qualification.Flight Crew : Air Transport Pilot (ATP)
Qualification.Flight Crew : Instrument
Experience.Flight Crew.Last 90 Days : 95
ASRS Report Number.Accession Number : 1804683
Human Factors : Distraction
Human Factors : Communication Breakdown
Human Factors : Confusion
Communication Breakdown.Party1 : Flight Crew
Communication Breakdown.Party2 : ATC

Events

Anomaly.ATC Issue : All Types
Anomaly.Conflict : Ground Conflict, Critical
Anomaly.Deviation / Discrepancy - Procedural : Clearance
Anomaly.Ground Incursion : Runway
Detector.Person : Flight Crew
When Detected : Taxi
Result.Flight Crew : Became Reoriented
Result.Air Traffic Control : Issued New Clearance

Assessments

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

Narrative: 1

During single runway operations immediately after a runway change from 31R to 13L due to winds, all Admin, Ground Operations, and checklists through taxi out were uneventful until Taxiway B, holding short of Taxiway M5. We estimated being #10 for takeoff. The Ground Controller gave us a slot time of (time) Zulu time, cleared us to cross 13L at M5 and told us to continue taxiing A5 then Alpha to Runway 13L. On the same radio the Ground Controller advised us the RJ (Regional Jet) ahead was cleared for takeoff and another aircraft was on three-mile final. That left one RJ on Alpha at the end of runway to taxi past while contacting Tower and running the Before Takeoff Checklist. With Lots of urgency in voice with words and tone from both Ground and Tower Controllers to all aircraft, the Tower Controller cleared us to line up and wait. We completed the Before

Takeoff checklist and noticed an aircraft begin to taxi expeditiously, on taxiway Bravo on the other side of the runway. The Captain noticed the aircraft taxi and landing lights, stated his observation and asked F/O (First Officer), "Why are his lights on?" F/O noticed the rate of Taxi Speed and lights then queried Tower Controller, "Tower Confirm Aircraft X is cleared to line up and wait?" Tower responded but the radio call was quick and interrupted by another person transmitting. Captain and F/O were 100% confident Aircraft X was originally cleared to line up and wait. Due to a visual conflict with the other aircraft possibly receiving the same clearance, our Captain stopped our aircraft during the query and response. The other aircraft appeared to slow down on the other side of the runway. The next radio call was, "Aircraft X, CLEARED FOR TAKEOFF 13L (text represents a QUICK radio call strung together). This was followed by "Aircraft X you are past the hold short line 13L, continue to cross without delay join Bravo and Contact Ground. F/O repeated the call including "Sorry for the mixup". The rest of taxi, ground operations, and return to 13L for takeoff were uneventful with the following exception: all communications from Tower, although a different voice assumed to be a supervisor, continued to contain LOTS of urgency in voice, words, and tone from both Ground and Tower Controllers to all aircraft. When conducting single runway operations, especially during deteriorating weather conditions, Ground and Tower Controllers should make a conscious effort to avoid speaking too fast and share information when similar sounding flight numbers are on frequency. When recognized Controller saturation and urgency, we can increase our guard and awareness against expectation bias. Additionally, we could possibly slow the cadence when appropriate while reading back clearances.

Narrative: 2

Scenario in DAL wasn't optimum. Runway change had just occurred due to winds out of limits. 13R closed. Winds shifting and Rain/low visibility to the south of field. During taxi, four to five Aircraft are shutdown on Taxiway B due to weather at east gates. Six Aircraft shutdown on M for the same reason. Taxi instructions for Aircraft X, "Taxi to 13L via B hold short of M5," given initially. EDCT (Estimated Departure Clearance Time) time now given (not known prior to this) by Ground of (time) void by (time). Ground then gave us hold short 13L at M5. Cross 13L, A5, A, 13L, contact Tower. Corporate jet in hold area just north of Taxiway A, approaching 13L holding short. Ground Controller and Tower Controller sounded rushed / voice inflection during transmissions from taxi out to this point with all aircraft. Tower Controller stated, "Aircraft X, lineup and wait Runway 13L." F/O read back instructions to Controller verbatim, to lineup and wait 13L, with no response from ATC which seemed normal. "Before Takeoff Checklists complete, final clear, 13L verified," and I looked right, to double check final clear, rounding corner on A I looked left and saw a Company aircraft rounding corner on M6 toward 13L with LUAW (Lineup and Wait) Lights configured. I stated this to F/O, while simultaneously stopping aircraft at 45 degrees facing 290 degree estimate, just past the hold short line. Tower Controller then cleared other Company aircraft for takeoff 13L. He then stated to us "Aircraft X, it appears you're past hold short line, taxi without delay across 13L to B, contact Ground and we will get you right back out. Never heard COMM jam or readback from other Aircraft X. When we were cleared LUAW and we read it back (all sounded normal in headset and transmission) and therefore I don't know how I could have prevented mistake. First time we knew of other Company aircraft call sign was when Tower cleared the aircraft for takeoff. The rest of DAL Ground Ops through departure phase was uneventful. Runway change / single runway operations / weather changing / departure gate closed, definitely played into non-standard operations both for ATC and Aircrew. Similar call signs should have been noted or announced by ATC to help prevent any confusion on ATC to aircraft instructions. Cadence and voice inflection are critical components in managing risk during less than optimal conditions for ATC. Although the task loading and pace for our phase of flight and internal communications did not feel rushed, the additive conditions, especially

late notice EDCT could have contributed. When I recognized Controller saturation potential and their urgency, we could have slowed down our transmissions and pace or have been more directive to them to slow down. Not only our craft, but all the aircraft that were on the taxi, could have helped slow things a bit.

Synopsis

Flight crew reported after receiving clearance to line up and wait, they observed another aircraft taxi onto the runway.

Time / Day

Date : 202104

Local Time Of Day : 1201-1800

Place

Locale Reference.Airport : ZZZ.Airport

State Reference : US

Altitude.AGL.Single Value : 0

Environment

Light : Daylight

Aircraft

Reference : X

ATC / Advisory.Tower : ZZZ

Aircraft Operator : Air Carrier

Make Model Name : Commercial Fixed Wing

Crew Size.Number Of Crew : 2

Operating Under FAR Part : Part 121

Flight Plan : IFR

Mission : Passenger

Flight Phase : Landing

Flight Phase : Taxi

Person : 1

Location Of Person.Aircraft : X

Location In Aircraft : Flight Deck

Reporter Organization : Air Carrier

Function.Flight Crew : Captain

Function.Flight Crew : Pilot Flying

Qualification.Flight Crew : Multiengine

Qualification.Flight Crew : Air Transport Pilot (ATP)

Qualification.Flight Crew : Instrument

Experience.Flight Crew.Last 90 Days : 230

Experience.Flight Crew.Type : 14700

ASRS Report Number.Accession Number : 1803706

Human Factors : Communication Breakdown

Human Factors : Situational Awareness

Human Factors : Time Pressure

Human Factors : Troubleshooting

Human Factors : Workload

Human Factors : Confusion

Communication Breakdown.Party1 : Flight Crew

Communication Breakdown.Party2 : ATC

Person : 2

Location Of Person.Aircraft : X

Reporter Organization : Air Carrier

Function.Flight Crew : Pilot Not Flying

Function.Flight Crew : First Officer
Qualification.Flight Crew : Air Transport Pilot (ATP)
Qualification.Flight Crew : Instrument
Qualification.Flight Crew : Multiengine
Experience.Flight Crew.Last 90 Days : 45
Experience.Flight Crew.Type : 6000
ASRS Report Number.Accession Number : 1803708
Human Factors : Time Pressure
Human Factors : Confusion
Communication Breakdown.Party1 : Flight Crew
Communication Breakdown.Party2 : ATC

Events

Anomaly.ATC Issue : All Types
Anomaly.Deviation / Discrepancy - Procedural : Clearance
Anomaly.Ground Incursion : Taxiway
Detector.Person : Air Traffic Control
When Detected : Taxi
Result.Flight Crew : Returned To Clearance
Result.Air Traffic Control : Issued New Clearance

Assessments

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

Narrative: 1

As the CA, I was the PF landing via RNAV Y Runway XXL at ZZZ. The approach was uneventful, and the landing was well within the touchdown zone. During landing rollout, after stowing the thrust reversers and slowing to exit the runway, I started to make the left turn to exit onto Taxiway 1. At that time, Tower came on the radio and said, "Aircraft X, exit the highspeed [Taxiway] 2X or the reverse." We understood the reverse to be Taxiway 1. My First Officer then switched to Ground, who told us to "Taxi to the gate via Taxiway 2 and 3, cross [Runway] YYL, C and [Taxiway] 4," to which my First Officer acknowledged. Ground Control then came on shortly thereafter with us on Taxiway 2 and told us that he really needed us on Taxiway 2X to exit, "not" the reverse. We then realized that with everything going on in the cockpit during a typical ZZZ landing, stopping the aircraft, etc., Tower probably told us to "Exit the high speed [Taxiway] 2X, not the reverse." Instead, we heard that to be "Exit the high speed [Taxiway] 2X or the reverse." The speed of the speech to which the clearance was given by the Tower also made the clearance difficult to understand, plus the radio sounded a bit muffled (Tower controllers wear masks while working). To note, there were no conflicts and no aircraft on Taxiway 2 upon exiting. After taxiing into the gate, I called the Tower directly and spoke with one of the controllers (but not the one who gave us that clearance). After explaining what I felt we heard the clearance to be, he responded that since they wear masks in the Tower, sometimes it's difficult to discern exact language with short bursts of words and hence the confusion between words like "or" and "not" when used in a quick clearance as was done in this situation. He said that most likely Tower was trying to get us off more quickly by using the high speed [Taxiway] 2X (instead of the reverse at Taxiway 1) in order to get a departing aircraft off before the next arrival. He told us "no problem" and "I'm sure the Tower Controller was not upset at all because I haven't heard about it." So, most likely, it

was simply a sequencing issue with Tower in order to expedite their flow. If the Controller had anticipated what he wanted and told us that clearance on final rather on during the last part of the landing roll after I positioned the aircraft into a left turn off onto Taxiway 1, that might have helped him. I also believe the mask that the Controller was wearing and the speed of his speech in which he delivered his clearance muffled the word "not" that we heard as "or."

Narrative: 2

We landed [Runway] XXL at ZZZ and upon exiting XXL pointed towards Taxiway 1 (the reverse of the high speed), we were told "Exit XXL on [Taxiway] 2X the high speed and NOT [Taxiway] 1." We both heard it as "Exit XXL on [Taxiway] 2X the high speed OR [Taxiway] 1." Since we were already positioned to take [Taxiway 1], we had an expectation bias and continued. I also didn't make it clear on the read back that I understood. I saw Taxiway 2 and read back "Exit at [Taxiway 2]" or something to that effect. On Ground frequency, we were alerted to our error. The Captain followed up via phone call and it was suggested by Tower that perhaps their instructions were garbled by their use of a mask while working.

Synopsis

Air carrier flight crew reported a taxiway incursion and cited communication problems with ATC as a contributing factor. Reportedly, the Controller's instructions sounded muffled due to wearing a face mask.

Time / Day

Date : 202104

Local Time Of Day : 1201-1800

Place

Locale Reference.Airport : ZZZ.Airport

State Reference : US

Altitude.AGL.Single Value : 0

Environment

Flight Conditions : VMC

Light : Daylight

Aircraft

Reference : X

ATC / Advisory.Tower : ZZZ

Aircraft Operator : Air Carrier

Make Model Name : A319

Crew Size.Number Of Crew : 2

Operating Under FAR Part : Part 121

Flight Plan : IFR

Mission : Passenger

Flight Phase : Taxi

Route In Use : Vectors

Airspace.Class B : ZZZ

Airspace.Class E : ZZZ1

Component

Aircraft Component : Fuel Storage System

Aircraft Reference : X

Problem : Malfunctioning

Person : 1

Location Of Person.Aircraft : X

Location In Aircraft : Flight Deck

Reporter Organization : Air Carrier

Function.Flight Crew : First Officer

Function.Flight Crew : Pilot Flying

Qualification.Flight Crew : Multiengine

Qualification.Flight Crew : Instrument

Qualification.Flight Crew : Air Transport Pilot (ATP)

ASRS Report Number.Accession Number : 1802061

Human Factors : Communication Breakdown

Human Factors : Time Pressure

Communication Breakdown.Party1 : Flight Crew

Communication Breakdown.Party2 : ATC

Person : 2

Location Of Person.Aircraft : X
Location In Aircraft : Flight Deck
Reporter Organization : Air Carrier
Function.Flight Crew : Captain
Function.Flight Crew : Pilot Not Flying
Qualification.Flight Crew : Multiengine
Qualification.Flight Crew : Instrument
Qualification.Flight Crew : Air Transport Pilot (ATP)
ASRS Report Number.Accession Number : 1802082
Human Factors : Communication Breakdown
Human Factors : Time Pressure
Communication Breakdown.Party1 : Flight Crew
Communication Breakdown.Party2 : ATC

Events

Anomaly.Aircraft Equipment Problem : Critical
Anomaly.Deviation / Discrepancy - Procedural : Published Material / Policy
Anomaly.Ground Event / Encounter : Fuel Issue
Anomaly.Inflight Event / Encounter : Fuel Issue
Detector.Person : Flight Crew
Detector.Person : Air Traffic Control
Were Passengers Involved In Event : N
When Detected : Taxi
Result.General : Flight Cancelled / Delayed
Result.General : Maintenance Action
Result.Flight Crew : Diverted
Result.Flight Crew : Requested ATC Assistance / Clarification
Result.Air Traffic Control : Provided Assistance

Assessments

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

Narrative: 1

Preflight and pushback were uneventful. We started the left engine and taxied out on one [engine] with an ATC designated takeoff time of XA: 44L. We started the second engine during taxi, all uneventful. While holding #1 for takeoff, Tower informed us that a [other] airline crew had noticed what they thought might be a fuel leak. We immediately thought of returning to the gate, but then Tower came back and told us to disregard the previous concern and that it was a different aircraft with the possible leak. We were then cleared for takeoff. Just before switching us to Departure, Tower said that there appeared to be some vapor coming from around our left engine. We scanned the instruments to see if there were any parameters that would be cause for concern, but everything looked normal. It was also humid air, and sometimes contrails can be seen in those conditions coming from the flaps during takeoff. Once above 10,000 feet, the Captain called Flight Attendant 1 and asked him to look at the left wing/engine to see if he could see any leaks or causes for concern. Once his visual inspection was complete, he called back and said that he did see what appeared to be vapor coming from under the left engine. We then had him come up to the cockpit, and the Captain sent me back to confirm the Flight Attendant's concerns. I did see what appeared to be vapor coming from under the left engine, although it was

difficult to tell exactly where the vapor was coming from. I went back up to the cockpit, told the Captain what I had seen, and we immediately began considering divert options. During this entire time, we were still climbing out and monitoring our fuel, including the fuel burn, engine fuel flow, and balance between wing tanks. During climb out, all of the indications seemed to be normal, but once we leveled off, the fuel burn began to diverge slightly from the planned fuel at each waypoint, and the imbalance between wing tanks began to grow, but it was all still within limits. Engine fuel flow was normal with no difference between the two engines. While continuing to monitor our fuel, ATC said that they had received a call from ZZZ Operations telling them that a runway inspection after our departure had revealed that we had leaked fuel on takeoff. At that point, we made the decision to divert. The weather was clear everywhere, and we had multiple good divert options. The Captain coordinated with Dispatch and we made the decision to divert to ZZZ2. The Captain spoke to the flight attendants and the passengers while I coordinated with ATC for the diversion. While enroute to ZZZ2, the fuel imbalance really became apparent. Just as we were handed off to ZZZ2 Approach, we got the ECAM for FUEL IMBALANCE - FUEL LEAK PROCEDURES APPLY. We focused on the approach and landing, and planned to shut down the left engine once clear of the runway. We coordinated with ZZZ2 approach to have ARFF (Aircraft Rescue and Firefighting) meet us in the echo pad to confirm we weren't leaking fuel, and then follow us to our gate. We executed that plan without incident, parked the aircraft at the gate and deplaned the passengers. Obviously we would have preferred to not take this airplane into the air. Maybe not a causal factor, but I would like to know if our ground crew noticed anything during or after engine start. We started the left engine first while still pushing back, and then made a right turn out that would have given them a good look at the problem engine. [The other] airline obviously noticed something, although once the Tower said that it was a different aircraft, we no longer considered a return to the gate. Once we had taken off, I felt that we handled the issue appropriately. Although I can't be sure if there were indications during engine start, I would hope that our ground crews are alert to any possible abnormalities that could arise during/after engine starting, including leaks.

Narrative: 2

After pushback, Ground informed us we had a wheels up time to ZZZ of XA: 44. We started the left engine and decided to single engine taxi until we got closer to departure time. I made about 130 degree right turn from the ramp to the taxiway. When we got over to the other side of the terminal, we started the right engine, about 6 minutes prior to our wheels up time. As we were running the final checklist items the Tower called and said [another] airline had reported a plane with what looked like a fuel leak. as we were talking about it, the Tower called us back and said disregard it was a different aircraft. The Tower then cleared us for takeoff. After we were airborne the Tower told us it look like there was vapor coming off the left engine. All the engine parameters we normal so we continued our climb. After we got above 10,000 feet I called Flight Attendant 1 and asked him to go look at the left engine to see if there was any fluid he could see. He called back and said he saw something so I sent the First Officer back to see if he could tell what it was and where it was coming from. He said it was hard to tell but it did look like vapor coming from under the engine. The fuel was not out of balance more than normal and we checked the fuel against the flight plan and it was not significantly off so we continued the climb. We were looking at our options in case we had to divert when Center called and said ZZZ had inspected the runway after we took off and found fuel on the runway. At that point we tried to call Company OPS to get a phone patch to Dispatch but no answer. I got on the crew phone app on the iPad and got in touch with our Dispatcher and we decided to go to ZZZ2. As we went further towards ZZZ2 the fuel imbalance started to appear. It was very slow but it was noticeable. As we approached ZZZ2 at 12,000 just before talking to Approach, we got an ECAM [Electronic Centralized Aircraft Monitor] fuel imbalance, fuel

leak procedure apply. We already knew we had a fuel leak. Landed in ZZZ2 without incident. Had the ARFF make sure the fuel leak had stopped after we shutdown the engine on the echo pad away from the gate. Taxied to the gate and deplaned the passengers. I think when ATC called us back and said disregard then cleared us for takeoff, it took away any thought about returning to the gate. I was very surprised our ground personnel did not notice the leak after we started the engine.

Synopsis

Flight Crew reported miscommunication led to a departure with a fuel leak that required a diversion and a precautionary emergency landing.

Time / Day

Date : 202104

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 : 1

Reference : X

ATC / Advisory.Tower : ZZZ

Aircraft Operator : Corporate

Make Model Name : Citationjet (C525/C526) - CJ I / II / III / IV

Crew Size.Number Of Crew : 2

Operating Under FAR Part : Part 91

Flight Plan : IFR

Mission : Passenger

Flight Phase : Takeoff / Launch

Aircraft : 2

Reference : Y

Make Model Name : Commercial Fixed Wing

Flight Plan : IFR

Flight Phase : Final Approach

Component

Aircraft Component : Air/Ground Communication

Aircraft Reference : X

Problem : Malfunctioning

Person : 1

Location Of Person.Aircraft : X

Location In Aircraft : Flight Deck

Reporter Organization : Corporate

Function.Flight Crew : Pilot Not Flying

Function.Flight Crew : First Officer

Qualification.Flight Crew : Multiengine

Qualification.Flight Crew : Air Transport Pilot (ATP)

Qualification.Flight Crew : Instrument

ASRS Report Number.Accession Number : 1801811

Human Factors : Communication Breakdown

Communication Breakdown.Party1 : Flight Crew

Communication Breakdown.Party2 : ATC

Person : 2

Location Of Person.Aircraft : X
Location In Aircraft : Flight Deck
Reporter Organization : Corporate
Function.Flight Crew : Pilot Flying
Function.Flight Crew : Captain
Qualification.Flight Crew : Multiengine
Qualification.Flight Crew : Air Transport Pilot (ATP)
Qualification.Flight Crew : Instrument
ASRS Report Number.Accession Number : 1801812
Human Factors : Communication Breakdown
Communication Breakdown.Party1 : Flight Crew
Communication Breakdown.Party2 : ATC

Events

Anomaly.Aircraft Equipment Problem : Less Severe
Anomaly.ATC Issue : All Types
Anomaly.Conflict : Ground Conflict, Critical
Anomaly.Deviation / Discrepancy - Procedural : Published Material / Policy
Anomaly.Deviation / Discrepancy - Procedural : Clearance
Anomaly.Ground Incursion : Runway
Detector.Person : Flight Crew
Were Passengers Involved In Event : N
When Detected : Taxi
Result.Flight Crew : Overcame Equipment Problem
Result.Air Traffic Control : Provided Assistance

Assessments

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

Narrative: 1

We were departing out of ZZZ on runway XXR at [Taxiway] 1. Tower had cleared us to line up and wait. The co-pilot started to move into position as I responded back to the tower. A moment later the tower came back and said for us remain holding short of runway XXR on 1. The co-pilot stopped immediately but we had already crossed the hold short line. I immediately replied back to the tower and stated that we were already across the hold short line and asking for further instruction. The hold short line was still in front of the main landing gear to give an idea of how quickly we stopped and responded to the towers call. The tower then cleared Aircraft Y to land on the same runway. I immediately radioed back again that we were beyond the hold short line and requested instruction. A second [same airline] pilot, on the other side of the runway waiting to take off, then also radioed to the tower that we were across the hold short line and needed further instruction. The tower said they had not heard any response from us and that we were to remain holding short of runway XXR at 1 and then cleared Aircraft Y to land again. The Aircraft Y pilot radioed that they were going around until the situation was figured out, I switched to the other radio and requested instructions again. The tower then gave us instructions to taxi onto runway XXR, turn right onto [taxiway] 2, turn right again to return to 1 and hold short. I responded with the clearance while the co-pilot taxied us on to the runway and back around to hold short at 1. The tower commented that we weren't responding to her

transmissions to which both the Aircraft Y pilot, who was around a 10 mile final at the time of our first transmission, and the [same airline] pilot holding on the other side of the runway confirmed that they had heard all of our responses to the towers clearances. It is my belief that there is a radio dead spot in the area of Runway XXR and taxiway 1 as ground control, clearance, and both [other airline] pilots heard us clearly from varying distances and at different points at the airport, but the tower did not while we were at that intersection. Look into why the radio dead zone from that point to the tower while all other aircraft, ground, and clearance could hear us on that radio at different times and/or inform others of the issue so they can be sure to use a radio with a topside antenna for better ground ops/reception of the dead zone can't be addressed.

Narrative: 2

After taxi to runway XXR at ZZZ for departure the tower cleared us to line up and wait. Controller informed us there was a plane on a 5 mile final. The PNF acknowledged the instruction and began the Before Takeoff Checklist. I began moving to the runway. As we taxied just beyond HOLD line with our tail above the line the controller issued an instruction for us hold short. I immediately stopped, knowing that there was an aircraft on final I instructed the PNF to let her know we were past the HOLD line but not on the runway. Controller never acknowledged our transmission and shortly thereafter repeated her instruction to hold short. I then attempted to transmit to her we had moved past the hold short line but were not on the runway. Another aircraft waiting on the other side of the runway let her know we were acknowledging her transmissions to which Controller responded that they had not heard our transmissions. At that point I realized our transmissions on the #1 radio were not being heard in the tower possibly due to our antenna location and orientation but the other aircraft were hearing us fine. I instructed the PNF to switch to the #2 radio and to try using the antenna on the top of the fuselage. Meanwhile the Controller instructed the aircraft on final to go-around. We established contact with her on the #2 radio and were instructed to expedite onto the runway and clear at the first taxiway then taxi back and hold short for departure sequence. The remainder of the flight continued without incident using the #1 radio. Not sure why there was a dead spot with our radio at that position on the airport. We had clear line of sight to the tower cab and antenna array off our nose and had no issues communicating with the ground controller during taxi out except we were oriented 90 degrees broadside to the tower before turning to face the tower upon reaching the end of the taxiway. I am not sure if this would be considered an incursion event since we were in compliance with the Tower clearance when we crossed the hold short line. It wasn't until after crossing the line and the subsequent counter instruction to hold short that we were inside the clear area.

Synopsis

CE-525 flight crew reported communications failure caused a runway incursion and another aircraft to execute a go around.

Time / Day

Date : 202104

Local Time Of Day : 1801-2400

Place

Locale Reference.Airport : ZZZ.Airport

State Reference : US

Relative Position.Angle.Radial : 090

Relative Position.Distance.Nautical Miles : 18

Altitude.MSL.Single Value : 6000

Environment

Light : Night

Aircraft

Reference : X

ATC / Advisory.TRACON : ZZZ

Aircraft Operator : Air Carrier

Make Model Name : B737-700

Crew Size.Number Of Crew : 2

Operating Under FAR Part : Part 121

Flight Plan : IFR

Mission : Passenger

Flight Phase : Initial Approach

Airspace.Class E : ZZZ

Person : 1

Location Of Person.Aircraft : X

Location In Aircraft : Flight Deck

Reporter Organization : Air Carrier

Function.Flight Crew : Pilot Flying

Function.Flight Crew : First Officer

Qualification.Flight Crew : Air Transport Pilot (ATP)

Qualification.Flight Crew : Multiengine

Qualification.Flight Crew : Instrument

Experience.Flight Crew.Last 90 Days : 156

Experience.Flight Crew.Type : 2370

ASRS Report Number.Accession Number : 1799118

Human Factors : Communication Breakdown

Communication Breakdown.Party1 : Flight Crew

Communication Breakdown.Party2 : ATC

Person : 2

Location Of Person.Aircraft : X

Location In Aircraft : Flight Deck

Reporter Organization : Air Carrier

Function.Flight Crew : Pilot Not Flying

Function.Flight Crew : Captain

Qualification.Flight Crew : Multiengine

Qualification.Flight Crew : Air Transport Pilot (ATP)
Qualification.Flight Crew : Instrument
ASRS Report Number.Accession Number : 1799510
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 / Discrepancy - Procedural : Published Material / Policy
Anomaly.Deviation / Discrepancy - Procedural : Clearance
Anomaly.Inflight Event / Encounter : CFTT / CFIT
Detector.Person : Flight Crew
Detector.Person : Air Traffic Control
When Detected : In-flight
Result.General : None Reported / Taken

Assessments

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

Narrative: 1

While being radar vectored to the visual final for Runway XX at ZZZ, Approach Control issued a descent to 6,000 feet MSL. We read back the clearance and proceeded to descend to 6,000 feet MSL. The Captain did observe that we seemed closer to some radio Towers on a hill than what would appear normal, but we received no GPWS Alerts. We continued on vectors and flew an uneventful approach and landing. After a call from Tower a few hours later, it was explained that the descent clearance to 6,000 feet was issued to a (other carrier X) whose readback was on a different Approach Control frequency. Our readback to that clearance as Company A (very similar sounding call sign) must have occurred at the same moment as (other carrier's) reply. Since the (other carrier X) aircraft had been on a different approach frequency, we had yet to hear any other communications to or from that aircraft, and ATC had not issued a caution for the similar sounding call signs. Additionally, ATC did not issue a low altitude warning if we had gone below the Minimum Vector Altitude in the sector we were within. When managing multiple frequencies, ATC should ensure that aircraft with similar call signs are alerted to possible miss interpretations. Furthermore, ATC should minimize the use of simulcasting on multiple Approach frequencies and consolidate traffic to one radio frequency.

Narrative: 2

We were being vectored for the visual approach to Runway XX at ZZZ from the east. ZZZ Approach Control issued a clearance to 6,000 feet MSL. We were later contacted that the clearance was for (other carrier) X, on another frequency and not for Company A. The clearance apparently took us below the MVA for that sector. The Controller was controlling multiple frequencies (he was busy) and never advised us of similar sounding call signs. We did not receive any terrain cautions from the aircraft or Controller. The subsequent approach and landing were uneventful. Listening during communications is always the most important. Being advised of similar sounding call signs is an important step to help alleviate threats and for Crews to be more vigilant.

Synopsis

B737-700 flight crew reported a CFIT event during a visual approach due to an ATC communications breakdown between flight crew and Approach Control who was working multiple frequencies with similar callsigns.

Time / Day

Date : 202104

Local Time Of Day : 0601-1200

Place

Locale Reference.Airport : ZZZ.Airport

State Reference : US

Altitude.AGL.Single Value : 0

Environment

Light : Daylight

Aircraft : 1

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

Aircraft : 2

Reference : Y

ATC / Advisory.Ground : ZZZ

Aircraft Operator : Air Carrier

Make Model Name : B757 Undifferentiated or Other Model

Crew Size.Number Of Crew : 2

Operating Under FAR Part : Part 121

Flight Plan : IFR

Flight Phase : Taxi

Person : 1

Location Of Person.Aircraft : X

Location In Aircraft : Flight Deck

Reporter Organization : Air Carrier

Function.Flight Crew : Pilot Flying

Function.Flight Crew : Captain

Qualification.Flight Crew : Instrument

Qualification.Flight Crew : Multiengine

Qualification.Flight Crew : Air Transport Pilot (ATP)

Experience.Flight Crew.Last 90 Days : 114

Experience.Flight Crew.Type : 114

ASRS Report Number.Accession Number : 1798564

Human Factors : Situational Awareness

Human Factors : Time Pressure

Human Factors : Communication Breakdown

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

Person : 2

Location Of Person.Aircraft : X
Location In Aircraft : Flight Deck
Reporter Organization : Air Carrier
Function.Flight Crew : Pilot Not Flying
Function.Flight Crew : First Officer
Qualification.Flight Crew : Air Transport Pilot (ATP)
Qualification.Flight Crew : Instrument
Qualification.Flight Crew : Multiengine
ASRS Report Number.Accession Number : 1798569
Human Factors : Communication Breakdown
Human Factors : Situational Awareness
Human Factors : Time Pressure
Communication Breakdown.Party1 : Flight Crew
Communication Breakdown.Party2 : ATC

Events

Anomaly.ATC Issue : All Types
Anomaly.Conflict : Ground Conflict, Critical
Anomaly.Deviation / Discrepancy - Procedural : Published Material / Policy
Detector.Person : Flight Crew
When Detected : Taxi
Result.Flight Crew : Took Evasive Action

Assessments

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

Narrative: 1

We pushed off of [the] gate. My First Officer (F/O) gave a courtesy push call to Ground and we were told to expect Runway XXL. After push, F/O requested taxi. A different voice than previous Controller on same frequency gave us taxi clearance. Clearance was "Taxi Runway XXL via Hotel and Golf." Taxiing from the non-movement area, approaching Taxiway, I announced "clear left" and I looked as far back as I could see over my left shoulder out of the left cockpit window. As I started a slow turn onto the taxiway, I visually cleared left again and saw a (other carrier) 757 rapidly approaching so I immediately stopped and set the parking brake. The traffic passed very close to us. This entire event was witnessed by a Company aircraft, which was holding short of the taxiway. We thought he was waiting for us so he could taxi into the ramp. My First Officer double checked our taxi clearance with Ground, about two minutes after the traffic passed. He confirmed it was "Taxi XXL via Hotel and Golf." After we had our clearance confirmation, the holding Company aircraft mentioned on the frequency something to the effect that the 757 passed very close to us.

Narrative: 2

On taxi out to Runway XXL in ZZZ, our clearance was "Taxi XXL via H, G". Approaching H from the ramp area, we noticed an inbound Company aircraft that we needed to either

yield to, or hear confirmation that he was going to yield to us prior to entering the ramp. The Crew of that aircraft saw us as well and were able to reach Ground Control before we could to clarify whether they should enter the ramp before us or after we had past. Ground Control advised them to hold position and issued us no further instructions so we were continuing with our previously assigned clearance to taxi via H, G to XXL. Approaching the taxiway the Captain cleared left and noted that Company aircraft was waiting, while I cleared Right. While making the turn onto the taxiway, the Captain did one more glance to the left and brought the aircraft to an abrupt stop. Just then I noticed a (other carrier) 757 taxiing down G that we had had no prior information on. The Captain was able to stop the aircraft and maintain separation. We held there for (other carrier) aircraft to pass by on G and then re-cleared both left and right and proceeded onto G as previously instructed. We confirmed our clearance with Ground Control to which they again verified we were to taxi XXL via H, G. No hold shorts or information concerning other aircraft were given other than the inbound Company aircraft being told to hold his position when he made the inquiry about entering the ramp in reference to us taxiing out. The (other carrier) 757 was never mentioned.

Synopsis

Air Carrier Pilot Crew reported a critical ground conflict during taxi.