Report Set Description ........................................ A sampling of reports referencing air carrier (FAR 121) flight crew fatigue issues and duty periods.

Update Number ...................................................30

Date of Update....................................................August 3, 2023

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

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

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: 1983222 (1 of 50)

**Synopsis**

B737 flight crew reported a suspected Fuel Leak after takeoff. The flight crew ran the QRH and check lists and then requested vectors to return to the departure airport. The Suspected Fuel Leak continued to worsen, so the flight crew requested priority handling and performed an in-flight shut down. When complying with the inflight shutdown QRH, it was discovered that the Cross Feed Valve was still open. The flight crew continued to perform an air turn back and precautionary landing at departure airport.

### ACN: 1972074 (2 of 50)

**Synopsis**

B737 flight crew reported after takeoff the elevator control system felt stiff. The pilots elected to divert to a nearby airport for maintenance action. An overweight landing was successfully accomplished.

### ACN: 1971851 (3 of 50)

**Synopsis**

B767 Captain reported uncommanded aircraft movement during push back not noticed by flight crew until advised by ground crew. Captain set the parking brake to stop aircraft movement.

### ACN: 1967403 (4 of 50)

**Synopsis**

Air carrier First Officers reported difficulty locating the correct taxiway to the runway at RCA airport. The pilots stated their EFB does not contain complete airport information, and cited poor taxiway lighting, initial confusing marshaller signals and inadequate help from ATC as additional contributing factors.

### ACN: 1966915 (5 of 50)

**Synopsis**

EMB-170 flight crew reported a wind shear event during final approach in turbulent conditions. The flight crew executed a successful wind shear recovery procedure which caused momentary airspeed and altitude deviations.
ACN: 1964518 (6 of 50)

Synopsis
B737-700 flight crew reported being issued a line up and wait clearance from the Tower Controller while there was another air carrier on short final for the same runway. The flight crew continued across the runway per ATC instructions and the other air carrier executed a go-around.

ACN: 1960483 (7 of 50)

Synopsis
Air Carrier flight crew reported an unstable approach accompanied by a terrain proximity alert during the missed approach. The pilots reported distractions, fatigue and poor weather as contributing to the event.

ACN: 1956915 (8 of 50)

Synopsis
An Air Carrier Captain reported while descending on an approach they received a Ground Proximity Warning and climbed back to the appropriate altitude.

ACN: 1949576 (9 of 50)

Synopsis
EMB175 Flight Crew reported autoflight improperly set resulted in higher rate of descent and a low altitude alert on approach.

ACN: 1948969 (10 of 50)

Synopsis
Air Carrier Captain reported he failed to amend the flight release for added Hazmat prior to departure.

ACN: 1946064 (11 of 50)

Synopsis
A321 pilot reported unstabilized approach.
<table>
<thead>
<tr>
<th>ACN: 1945726  (12 of 50)</th>
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</thead>
<tbody>
<tr>
<td><strong>Synopsis</strong></td>
</tr>
<tr>
<td>Air carrier flight crew reported critical ground conflict during taxi out for departure, requiring braking to avoid a collision.</td>
</tr>
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<table>
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<tr>
<th>ACN: 1942817  (13 of 50)</th>
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<tbody>
<tr>
<td><strong>Synopsis</strong></td>
</tr>
<tr>
<td>CRJ-700 flight crew reported receiving an obstacle alert during a night visual approach. After responding accordingly to the alert, the flight crew followed the company approach guidance to a safe landing.</td>
</tr>
</tbody>
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<tr>
<th>ACN: 1938052  (14 of 50)</th>
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<tbody>
<tr>
<td><strong>Synopsis</strong></td>
</tr>
<tr>
<td>Air Carrier flight crew reported receiving an ATC low altitude alert during approach. The flight crew immediately climbed to assigned altitude and continued the approach.</td>
</tr>
</tbody>
</table>

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<tr>
<th>ACN: 1932078  (15 of 50)</th>
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<tbody>
<tr>
<td><strong>Synopsis</strong></td>
</tr>
<tr>
<td>Air carrier flight crew reported heavy braking was required to avoid a collision with a truck on their runway at MSLP. The Tower Controller had instructed the truck to exit the runway but the truck failed to do so.</td>
</tr>
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<tr>
<th>ACN: 1932036  (16 of 50)</th>
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<tbody>
<tr>
<td><strong>Synopsis</strong></td>
</tr>
<tr>
<td>B737-700 flight crew reported a track deviation occurred while returning to departure airport following a fuel imbalance issue.</td>
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<tr>
<th>ACN: 1931686  (17 of 50)</th>
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</thead>
<tbody>
<tr>
<td><strong>Synopsis</strong></td>
</tr>
</tbody>
</table>
B737-700 First Officer reported the flight took off with the pneumatic bleed valves closed, resulting in failure to pressurize. The crew noticed and corrected the error.

**ACN: 1928964 (18 of 50)**

**Synopsis**
B737-800 flight crew reported they failed to shut down both engines during their shutdown flow. The crew stated distraction caused by a conflict with a tug contributed to the event. Fatigue was also cited as a factor.

**ACN: 1916238 (19 of 50)**

**Synopsis**
CRJ200 flight crew reported multiple issues resulted in an unstable approach that would have required a go around. Instead, the crew continued the landing and were stable by 500 ft AGL.

**ACN: 1916153 (20 of 50)**

**Synopsis**
B767 Captain reported numerous delays were caused by mechanical, communications and ground weather. The flight eventually cancelled and the Captain called out fatigued due to the situation.

**ACN: 1915224 (21 of 50)**

**Synopsis**
Air carrier Captain and First Officer reported a failure to use SOPs during push back and brake release. The Captain and First Officer failed to communicate and released brakes while the ground crew was still under the aircraft. There were no injuries or equipment contact.

**ACN: 1915174 (22 of 50)**

**Synopsis**
Air Carrier Captain reported a fume event during gate preflight. After assisting maintenance with the engine run ups and maintenance checks which resulted in no improvements the flight was cancelled.
**ACN: 1909487 (23 of 50)**

**Synopsis**
Flight Crew reported a rejected take off was caused by Engine #2 EGT exceedance and returned to the gate for maintenance action.

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**ACN: 1909015 (24 of 50)**

**Synopsis**
EMB ERJ 170/175 First Officer reported the failure of MAU 2B in cruise. The flight crew made an air turn back and precautionary landing at destination airport and the aircraft was towed to the gate.

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**ACN: 1907448 (25 of 50)**

**Synopsis**
B737 Captain reported as they taxied onto the runway for departure the Captain noticed the First Officer set the flaps to the wrong position and a complete Before Take Off briefing had not been accomplished. The Captain reported the First Officer made many mistakes and lacked proficiency due to being a new student who had not flown for a long period of time.

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**ACN: 1907134 (26 of 50)**

**Synopsis**
A321 Captain reported returning to departure airport after the #2 engine overheated in initial climb.

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**ACN: 1903368 (27 of 50)**

**Synopsis**
Air carrier flight crew reported the Captain had to suddenly brake to avoid another taxiing aircraft which passed in front of them.

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**ACN: 1903211 (28 of 50)**
Synopsis
First Officer reported a near impact with an adjacent aircraft during pushback after the tug's tow bar snapped.

ACN: 1901910 (29 of 50)

Synopsis
Air carrier Captain reported extreme fatigue due to the companies scheduling and personal activities. The Captain called in fatigued to the company and was removed from flying duties.

ACN: 1900157 (30 of 50)

Synopsis
Air carrier flight crew reported conducting a Category II approach to a runway that was not 5G AMOC approved. The pilots reported fatigue as a probable cause for the error.

ACN: 1895846 (31 of 50)

Synopsis
CRJ900 First Officer reported incorrectly extending flaps instead of the landing gear as well as encountering issues with the EFB software making checklist usage difficult. Corrections were made to the aircraft’s configuration prior to 1,000 ft. and a normal landing was completed.

ACN: 1893402 (32 of 50)

Synopsis
B737 MAX 9 flight crew reported being new to this generation aircraft type resulted in landing past touchdown zone.

ACN: 1890117 (33 of 50)

Synopsis
Air carrier Captain reported descending below glide path on a visual approach to SFO when situational awareness was lost.
**ACN: 1885585 (34 of 50)**

**Synopsis**

Air carrier Captain reported that after long departure delays due to heavy snow and de-icing, the landing gear would not retract during takeoff. The flight returned for maintenance and crew rest however after planning for another departure the crew reported too fatigued to fly.

**ACN: 1883754 (35 of 50)**

**Synopsis**

B757-200 flight crew reported two main tire assemblies deflated on landing roll out due to excessive manual braking applied due to three different MELs on the aircraft. The aircraft was towed to the gate to complete the flight.

**ACN: 1882878 (36 of 50)**

**Synopsis**

Air carrier pilot reported making a fatigue call after experiencing multiple delays, crew scheduling issues, and not being able to meet the rest requirements of FAR 117.

**ACN: 1882059 (37 of 50)**

**Synopsis**

Air carrier First Officer reported having to call in sick due to fatigue resulting from long work hours. First Officer stated many consecutive work days with minimum days off and lack of scheduling flexibility are common issues at the company.

**ACN: 1881835 (38 of 50)**

**Synopsis**

A321 Captain reported communications issues caused lengthy delays and a fatigue call after load shedding interfered with engine start and push back from the gate.

**ACN: 1880910 (39 of 50)**

**Synopsis**
B737 flight crew reported an engine failure after take off, resulting in an air turnback and precautionary landing at the departure airport.

**ACN: 1879817 (40 of 50)**

**Synopsis**
B737-900 First Officer reported encountering wake turbulence from a preceding B737 departing LAS. This distraction contributed to missing a crossing restriction.

**ACN: 1869048 (41 of 50)**

**Synopsis**
A319 flight crew reported loss of green hydraulic system while in cruise. After communication with dispatch and maintenance, they elected to request priority handling and continue to destination airport.

**ACN: 1868067 (42 of 50)**

**Synopsis**
First Officer reported flying with two different Captains who exhibited symptoms from COVID-19.

**ACN: 1867077 (43 of 50)**

**Synopsis**
Flight crew reported receiving a Ground Proximity Warning while on final approach due to conducting the approach below the authorized minimum air temperature.

**ACN: 1857302 (44 of 50)**

**Synopsis**
Air Carrier Captain reported chronic fatigue due to flight crew scheduling practices.

**ACN: 1857234 (45 of 50)**

**Synopsis**
Air carrier flight crew reported they turned on to the wrong taxiway at EWR Airport and cited confusing taxiway signage and fatigue as contributing factors.

**ACN: 1856524 (46 of 50)**

**Synopsis**
Air carrier flight crew reported an altitude deviation during descent to MDW while on the ENDEE 4 Arrival. The Captain reported they entered the correct information in the FMC, but failed to set the altitude in the MCP altitude window and stated fatigue was a contributing factor.

**ACN: 1855563 (47 of 50)**

**Synopsis**
EMB-145 Captain reported going to work while extremely fatigued and attributed the challenging schedules to staffing issues at their company.

**ACN: 1852035 (48 of 50)**

**Synopsis**
CRJ flight crew reported experiencing a brief stick shaker during a wake turbulence encounter on final approach to DEN.

**ACN: 1850208 (49 of 50)**

**Synopsis**
Air carrier Captain reported fatigue due to long, consecutive days of flying and cited weather and staffing as contributing factors.

**ACN: 1849878 (50 of 50)**

**Synopsis**
Air carrier flight crew reported descending below charted altitude on approach to ORD in instrument conditions when the First Officer improperly set the MCP altitude.
Report Narratives
ACN: 1983222 (1 of 50)

Time / Day
Date: 202303
Local Time Of Day: 1801-2400

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

Environment
Flight Conditions: VMC
Light: Night

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

Component: 1
Aircraft Component: Fuel Crossfeed
Aircraft Reference: X
Problem: Improperly Operated

Component: 2
Aircraft Component: Turbine Engine
Aircraft Reference: X
Problem: Improperly Operated

Component: 3
Aircraft Component: Other Documentation
Aircraft Reference: X
Problem: Improperly Operated

Person: 1
Location Of Person.Aircraft: X
Location In Aircraft: Flight Deck
Reporter Organization: Air Carrier
Function.Flight Crew: Captain
Function.Flight Crew: Pilot Not Flying
Qualification.Flight Crew: Multiengine
Qualification.Flight Crew: Air Transport Pilot (ATP)
Qualification.Flight Crew: Instrument
ASRS Report Number. Accession Number: 1983222
Human Factors: Communication Breakdown
Human Factors: Fatigue
Human Factors: Human-Machine Interface
Human Factors: Situational Awareness
Human Factors: Time Pressure
Human Factors: Troubleshooting
Human Factors: Confusion
Communication Breakdown.Party1: Flight Crew
Communication Breakdown.Party2: Flight Crew

Person: 2
Location Of Person.Aircraft: X
Location In Aircraft: Flight Deck
Reporter Organization: Air Carrier
Function.Flight Crew: Pilot Flying
Function.Flight Crew: First Officer
Qualification.Flight Crew: Instrument
Qualification.Flight Crew: Multiengine
Qualification.Flight Crew: Air Transport Pilot (ATP)
ASRS Report Number.Accession Number: 1983224
Human Factors: Workload
Human Factors: Troubleshooting
Human Factors: Situational Awareness
Human Factors: Fatigue
Human Factors: Confusion
Human Factors: Communication Breakdown
Human Factors: Human-Machine Interface
Communication Breakdown.Party1: Flight Crew
Communication Breakdown.Party2: Flight Crew

Events
Anomaly.Aircraft Equipment Problem: Critical
Anomaly.Deviation / Discrepancy - Procedural: Published Material / Policy
Anomaly.Deviation / Discrepancy - Procedural: Clearance
Anomaly.Inflight Event / Encounter: Fuel Issue
Detector.Automation: Aircraft Other Automation
Detector.Person: Flight Crew
Were Passengers Involved In Event: N
When Detected: In-flight
Result.General: Maintenance Action
Result.General: Flight Cancelled / Delayed
Result.Flight Crew: Requested ATC Assistance / Clarification
Result.Flight Crew: Inflight Shutdown
Result.Flight Crew: Landed in Emergency Condition
Result.Flight Crew: Returned To Departure Airport
Result.Air Traffic Control: Provided Assistance

Assessments
Contributing Factors / Situations: Aircraft
Contributing Factors / Situations: Human Factors
Contributing Factors / Situations: Procedure
Primary Problem: Human Factors
**Narrative: 1**

Shortly after completing the after takeoff checklist I noticed that fuel was flowing from the left fuel tank at a very alarming rate. We thought that there was a fuel leak because of the rapid fuel flow out of the left tank. The First Officer (FO) continued to fly the aircraft while I ran the Engine Fuel Leak QRH. We briefly discussed continuing straight to ZZZ1 but the weather was better in ZZZ and the rate of fuel loss out of the left side was very concerning to us. While I ran the QRH the FO [requested priority handling] and requested vectors back to ZZ. The rapid loss led us to confirm a fuel leak in the QRH which led us to shutting down the number one engine. We continued to an uneventful single engine landing in ZZZ. After securing the engine we became aware the cross feed valve was open. I know I pointed at it in the QRH and verified it closed. I did not see a dim blue light and did not expect it to be open, because the only time it is open is when I open it. While we did discuss the issue at hand before delving into the QRC we felt a great urgency to act quickly due to the very rapid loss of fuel. A longer safety pause would have been more appropriate. The FO did a great job flying the plane and handling the radios but the approach environment is very distracting. I left the checklist to get ATC SOB count after we [requested priority handling], and again to talk to the Flight Attendants (FAs) when they felt the plane turning around. Better managing distractions during critical junctures of the checklist would have gone a long way. I feel like I have good working knowledge of the 737 fuel systems, and know that one pump can overpower the others and the high power setting and fuel flow was the reason why the draw on the left side was so alarming. In retrospect there were a number of opportunities to trap this error before becoming an undesirable aircraft state. Fatigue may have been a contributing factor as this incident occurred on daylight savings day. I had a hard time falling asleep and woke up at XA:30 AM body time. My watch estimated my sleep for the night as 4 hours 13 minutes. I was tired that day and using caffeine to get me home. I have learned a lot from previous company guidance on this issue and never wanted to be the one to go down this rabbit hole. Look out for tunnel vision, confirmation bias, don't rush!

**Narrative: 2**

Shortly after completing the after takeoff checklist the Captain noticed that fuel was depleting from the left fuel tank at an alarming rate. After a quick discussion we agreed that a fuel leak was suspected. I continued flying the aircraft and took over radio duties while the Captain ran the QRH for fuel leak. I [requested priority handling] and requested radar vectors back to ZZ after a quick discussion with the Captain as the weather was significantly better there than ZZZ1. The checklist lead us to shut down the left engine and we prepared for a single-engine approach and landing. While on downwind our jump seater noticed that our cross feed valve was in the open position and neither the Captain nor I had caught it. We were so busy and inundated with task-saturation that a step was missed in the QRH. I think we were pretty shocked to see how fast our fuel was depleting from the left side and that caused us to rush the checklist and miss key steps. The volume of radio calls and vectors kept me from doing a great job of backing up the Captain while they ran the checklist. Fatigue was definitely a contributing factor as we had an early van in ZZ2 on the morning of daylight savings. This is a prime example of needing to slow down and take a better assessment of the situation before rushing to conclusions.

**Synopsis**

B737 flight crew reported a suspected Fuel Leak after takeoff. The flight crew ran the QRH and check lists and then requested vectors to return to the departure airport. The Suspected Fuel Leak continued to worsen, so the flight crew requested priority handling and performed an in flight shut down. When complying with the inflight shutdown QRH, it
was discovered that the Cross Feed Valve was still open. The flight crew continued to perform an air turn back and precautionary landing at departure airport.
ACN: 1972074 (2 of 50)

**Time / Day**
- Date: 202302
- Local Time Of Day: 0601-1200

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

**Environment**
- Light: Daylight

**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
- Nav In Use: GPS
- Nav In Use: FMS Or FMC
- Flight Phase: Takeoff / Launch
- Airspace.Class C: ZZZ

**Component**
- Aircraft Component: Elevator
- 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: Air Transport Pilot (ATP)
- Qualification.Flight Crew: Instrument
- Qualification.Flight Crew: Multiengine
- Experience.Flight Crew.Last 90 Days: 75
- Experience.Flight Crew.Type: 7200
- ASRS Report Number: Accession Number: 1972074
- Human Factors: Fatigue
- Human Factors: Situational Awareness
- Human Factors: Time Pressure
- Human Factors: Workload
- Human Factors: Distraction
**Person: 2**

Location Of Person: Aircraft: X  
Location In Aircraft: Flight Deck  
Reporter Organization: Air Carrier  
Function: Flight Crew: First Officer  
Function: Flight Crew: Pilot Not Flying  
Qualification: Flight Crew: Multiengine  
Qualification: Flight Crew: Instrument  
Qualification: Flight Crew: Air Transport Pilot (ATP)  
ASRS Report Number: Accession Number: 1971800  
Human Factors: Time Pressure  
Human Factors: Situational Awareness  
Human Factors: Distraction  
Human Factors: Workload

**Events**

Anomaly: Aircraft Equipment Problem: Critical  
Anomaly: Deviation / Discrepancy - Procedural: Published Material / Policy  
Anomaly: Deviation / Discrepancy - Procedural: Weight And Balance  
Detector: Person: Flight Crew  
Were Passengers Involved In Event: N  
When Detected: In-flight  
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  
Primary Problem: Aircraft

**Narrative: 1**

After pushback from ZZZ, we performed the Control Check, and the First Officer (FO) noted that the Elevator Control felt "stiff". I performed the check and also noticed the stiffness, but there was no restriction or problem with movement. We discussed our options and I decided since there was no binding or restricted movement, we should be good to continue. On departure at 800 ft. AGL, the FO performed the thrust cutback as per the noise abatement procedure. When I went to lower the pitch, the yoke felt stuck. It took an unusual amount of force to free the yoke and lower the nose. We leveled off at 13,000 ft. and ran the Jammed or Restricted Flight Controls QRH. Upon completion of the QRH, we decided it was best to divert to ZZZ1. I coordinated with Dispatch and told him our problem and the plan to divert to ZZZ1, and he agreed that was the best course of action. The FO coordinated our divert with Approach. We did not [request priority handling] as the aircraft was flying normally. I briefed the Flight Attendants and Passengers and called ZZZ1 Station Operations to ensure they were in the loop. The FO calculated the landing data and we realized we would have to make an overweight landing, as we weighed 133,500 pounds. He referenced the overweight landing section in the manual and we decided to land on XXR at ZZZ1 since it was the longest runway. We looked at brake cooling but it was not a factor. We configured normally, landed and taxied to the gate without incident. All in all, this was a fairly straightforward diversion, but after pulling into the gate, coordinating with Maintenance, Dispatch, Company Operations Chief Pilot, and Crew Scheduling, and making the appropriate write-ups, I found myself drained.
I was very grateful we did not have to continue with our flying and instead got to deadhead home.

**Narrative: 2**

On takeoff, as the Captain lowered the nose to accelerate, he experienced a very brief "hanging up" in the elevator controls. It was easily overpowered and the decision to make a precautionary overweight landing in ZZZ1 was made. During the previous landing I noticed a very slight roughness in the elevator during flare, but it was not a feeling that was out of the ordinary enough to cause concern of a potential malfunction. During the Flight Control Check, there was a slight roughness in the elevator, but again it didn't seem anything more than what would be experienced during normal operations. It was very subtle and noted by both of us as being within normal limits from past experience. I noticed the "hang up" that the Captain experienced on takeoff and it had amplified enough to cause us both concern and initiate a divert.

**Synopsis**

B737 flight crew reported after takeoff the elevator control system felt stiff. The pilots elected to divert to a nearby airport for maintenance action. An overweight landing was successfully accomplished.
**Time / Day**

Date: 202302
Local Time Of Day: 0001-0600

**Place**

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

**Environment**

Work Environment Factor: Poor Lighting
Light: Night

**Aircraft**

Reference: X
Aircraft Operator: Air Carrier
Make Model Name: B767-300 and 300 ER
Crew Size.Number Of Crew: 2
Operating Under FAR Part: Part 121
Flight Plan: IFR
Mission: Cargo / Freight / Delivery
Flight Phase: Taxi

**Component**

Aircraft Component: Parking Brake
Aircraft Reference: X
Problem: Improperly Operated

**Person**

Location Of Person.Aircraft: X
Location In Aircraft: Flight Deck
Reporter Organization: Air Carrier
Function.Flight Crew: Check Pilot
Qualification.Flight Crew: Instrument
Qualification.Flight Crew: Multiengine
Qualification.Flight Crew: Air Transport Pilot (ATP)
ASRS Report Number.Accession Number: 1971851
Human Factors: Distraction
Human Factors: Fatigue
Human Factors: Training / Qualification
Human Factors: Workload

**Events**

Anomaly.Conflict: Ground Conflict, Critical
Anomaly.Deviation / Discrepancy - Procedural: Published Material / Policy
Anomaly.Ground Incursion: Ramp
Anomaly.Ground Event / Encounter: Loss Of Aircraft Control
Detector.Person: Ground Personnel
When Detected : Taxi
Result.General : Maintenance Action
Result.Flight Crew : Regained Aircraft Control
Result.Flight Crew : Took Evasive Action

Assessments

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

Narrative: 1

The following is to report unintended aircraft movement during push back. I was the Captain conducting First Officer (FO) new hire and had a new hire occupying the observer seat for familiarization. Work load management was high and leading factors include; fatigue, 2nd leg of an all-night duty period, MEL procedures, and training environment. During push back the ground crew completed the push advised me to set the parking brake and we are cleared to start both engines. I set the parking brake and told the FO to start the right engine. During the start the observing crew member asked if I could explain the start process, to which I only explained our definition of max motoring prior to fuel selection. Also, my attention was focused outside of the aircraft and compliance with verification of proper mode annunciation by EICAS and discrete light. After the right engine was started normally, the ground crew advised the aircraft was rolling and to set the parking brake. I immediately stepped on the brakes, set the parking brake and verified EICAS that the brake was set. I verified with ground crew if there were any injuries, contact with equipment or any damage. The ground crew was all safe and uninjured, no damage or contact with equipment took place. The aircraft was pushed to a dark unlit area on blacktop, it is unsure how much speed the aircraft picked up, but was not enough to make contact with the tug or tow bar parked directly in front. After the aircraft was briefly inspected by local maintenance, the left engine was started and we completed the flight without further issue. My apologies were given to the ground and well done for advising of the aircraft movement. I sincerely apologize to the company and to the crew members aboard for the potential harm or damage that could have resulted. Please contact me with further questions.

Synopsis

B767 Captain reported uncommanded aircraft movement during push back not noticed by flight crew until advised by ground crew. Captain set the parking brake to stop aircraft movement.
**Time / Day**
- Date: 202301
- Local Time Of Day: 1201-1800

**Place**
- Locale Reference Airport: RCA.Airport
- State Reference: SD
- Altitude.AGL.Single Value: 0

**Aircraft**
- Reference: X
- Aircraft Operator: Air Carrier
- Make Model Name: Commercial Fixed Wing
- Crew Size.Number Of Crew: 4
- Operating Under FAR Part: Part 121
- Flight Plan: IFR
- Mission: Cargo / Freight / Delivery
- Flight Phase: Taxi

**Component**
- Aircraft Component: Electronic Flt Bag (EFB)
- 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: First Officer
- Qualification.Flight Crew: Air Transport Pilot (ATP)
- Qualification.Flight Crew: Instrument
- Qualification.Flight Crew: Multiengine
- ASRS Report Number.Accession Number: 1967403
- Human Factors: Fatigue
- 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 Not Flying
- Qualification.Flight Crew: Multiengine
Narrative: 1

This was our second long day of sitting on the aircraft waiting for fuel to be loaded. Our first day ended when the airfield closed, because we delayed several hours due to insufficient support for two aircraft and a single fuel truck in operation. From the time we completed our aircraft preflight procedures and briefing, approximately 2 hours had passed. I was the Pilot Flying (PF) in the right seat and the Captain (CA) was the Pilot Monitoring (PM) in the left seat. There were two additional First Officers (FO) seated in the observer seats. The company pages for Ellsworth AFB states that for departures "expect taxi clearance to runway via Taxiway Delta and back taxi." There is further information provided for the arrivals section that states this is due to pavement degradation. This expected clearance is exactly what the company aircraft in front of us received the day prior, and is what we briefed. When we received our taxi clearance we were simply told to taxi via "Alpha Bravo." As we commenced our taxi there was a marshaller positioned directly in front of us, and he signaled for us to taxi straight ahead, then directed us for an immediate right turn towards DELTA Taxiway. As we were nearing the runway, the FO in the left observer seat reminded me to turn left onto Alpha, which the entire crew agreed with. As we turned down the taxiway, it appeared to be very close to some blast fences on the right, so with the CA's concurrence I opted to taxi left of the center line so we had ample wingtip clearance on the right side. This area where we were taxiing was a large (vacant) parking ramp. This Taxiway Alpha has a slight right turn, then a left turn back to parallel the runway. As we made this right turn (approximately 45 deg) I immediately realized something was wrong. The taxiway had a dead end directly in front of us, and the blue taxiway lights were now on our left side. I quickly came to a stop and we queried
Ground Control, while referencing our taxi diagram. The crew thought that perhaps the blue taxiway lights were center line taxi lights, and the Ground Control commented that those lights "used to be green." The crew further interpreted this to be center line taxi lights, so we again continued to taxi to the left to intercept what we thought was center line taxi lights. We again realized this was not the case, and these recessed lights denoted the right side of the taxiway. We crossed over the recessed taxi edge lights onto the appropriate taxiway, and continued our taxi to Runway 31 without any further issues. At no time did the aircraft ever leave a hard surface or an area in which was not intended for aircraft travel, it was simply an area that was not specifically marked as the Alpha Taxiway. Where we were actually located was on a back alleyway for the hardstand parking locations of the ramp. Several factors played into this event, including the following; The long delay due to fueling issues, and duration from the time we briefed. Expectation bias originating from the company airport page and the marshaller/equipment in front of us. Poor taxi diagram available for the airfield which appears to identify two parallel Alpha taxiway lines, which is actually the taxi width line on the ramp area. Incorrect information from ground control concerning taxiway edge lights and colors versus taxiway center line lights, which did not exist. Poor ramp lighting and non standard airport markings. Even though we briefed what was expected and all monitoring pilots had taxi diagrams open and followed along the taxi route, we were still easily confused due to the information we had available. I believe that instead of "expecting" a clearance to back taxi on the runway, this should be standard operating procedure at this airport. There are far too many hazards and traps with the limited information on this airfield and non standard markings.

**Narrative: 2**

PM (Pilot Monitoring) briefed taxi route per company page; via Delta and back-taxi to departure Runway 31. We were cleared by ATC to taxi via Alpha, Bravo. Upon signaling marshaller, we were directed onto Delta, the marshaller and a piece of equipment blocking a straight-out taxi. Prior to entering taxiway Delta I advised a left turn was necessary to enter taxiway Alpha "Outer" there being two taxi lines depicted on the airport chart. A turn was made and we followed taxiway Alpha "Outer" realizing, as we neared the curve in the taxiway that something was amiss. We stopped the aircraft, queried ATC, and were assured our taxi path was correct. Being situated behind the Captain (4th Observer) I did not have a good view of the taxiway ahead and to the right of the aircraft, however, I could see out the left window clearly. The Captain and I observed a wide swath of taxiway left of the aircraft, and the PM maneuvered accordingly. We joined taxiway Bravo at the runway end, and departed Runway 31. The non-standard markings, poor airfield and taxiway lighting, and operations of a military airfield were contributing factors. The marshaller put us on the wrong path initially by blocking a straight-out taxi. The two taxi "lanes" for taxiway Alpha are misleading. There is no Jepp AMM (Airport Moving Map) for RCA making Ownship position a guesstimate. It seemed once we made the turn that we were taxiing on the "Outer" taxi lane for taxiway Alpha. ATC never stopped or queried us, and when we queried ATC we were given inaccurate information back. Additionally, we had observed a military aircraft take that path in advance of our departure, making it seem there were two, legitimate, taxi lines for taxiway Alpha. The company page could clarify the taxiway Alpha markings. Not being familiar with military airfields it looked as if there were two taxi lines for taxiway Alpha. Further, we could have pressed ATC for the suggested route of taxiway Delta with the back-taxi to the runway.

**Synopsis**

Air carrier First Officers reported difficulty locating the correct taxiway to the runway at RCA airport. The pilots stated their EFB does not contain complete airport information, and
cited poor taxiway lighting, initial confusing marshaller signals and inadequate help from ATC as additional contributing factors.
ACN: 1966915 (5 of 50)

**Time / Day**
- Date: 202301
- Local Time Of Day: 1801-2400

**Place**
- Locale Reference: Airport: ZZZ.Airport
- State Reference: US
- Altitude: MSL. Single Value: 2300

**Environment**
- Weather Elements / Visibility: Turbulence
- Light: Night

**Aircraft**
- Reference: X
- Aircraft Operator: Air Carrier
- Make Model Name: EMB ERJ 170/175 ER/LR
- Crew Size: Number Of Crew: 2
- Operating Under FAR Part: Part 121
- Flight Plan: IFR
- Mission: Passenger
- Flight Phase: Landing

**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: 1966915
- Human Factors: Troubleshooting
- Human Factors: Workload
- Human Factors: Fatigue
- Human Factors: Time Pressure

**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)
- ASRS Report Number: Accession Number: 1966922
- Human Factors: Time Pressure
Human Factors : Fatigue
Human Factors : Workload

Events
Anomaly.Deviation - Altitude : Overshoot
Anomaly.Deviation - Altitude : Excursion From Assigned Altitude
Anomaly.Deviation - Speed : All Types
Anomaly.Deviation / Discrepancy - Procedural : Published Material / Policy
Anomaly.Deviation / Discrepancy - Procedural : Clearance
Anomaly.Inflight Event / Encounter : Loss Of Aircraft Control
Anomaly.Inflight Event / Encounter : Weather / Turbulence
Anomaly.Inflight Event / Encounter : Unstabilized Approach
Anomaly.Inflight Event / Encounter : CFTT / CFIT
Detector.Person : Flight Crew
When Detected : In-flight
Result.General : Maintenance Action
Result.Flight Crew : Took Evasive Action
Result.Flight Crew : Overcame Equipment Problem
Result.Flight Crew : Became Reoriented

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

Narrative: 1

During my approach on the ILS X into ZZZ, I initiated a go-around just passed or around ZZZZZ FAF due to what I believe was a wind-shear downdraft. The ZZZ1 area was covered with moderate turbulence and thunderstorms were moving through the sector. Prior to the approach I briefed the PM on a possible wind-shear escape maneuver should the possibility arise. The ATIS was not reporting wind-shear and it seemed the other traffic ahead of us were getting into ZZZ just fine. We had just flown in on the ZZZZZ1 arrival with very strong moderate turbulence all the way in. As we were cleared for the approach I selected flaps and gear down on normal schedule and complied with the speed restrictions given to us by ATC. As we turned final I could see an ominous looking cloud that appeared to be moving across the path to the runway at the FAF ZZZZZ. In a break in the cloud I could visually see the runway lights off and on. I prepared for the possibility that the cloud would emanate some turbulence. As we passed through it on the backside of it I felt the airplane get rolled to the right and I felt the plane being pushed down. We did not receive any wind-shear warnings or cautions aurally. I counteracted as it was being forced down and then I felt the airspeed dropping rapidly. I felt as if a downdraft was causing us to be pushed down at an uncontrollable rate. At that point I knew we needed to apply power and climbout of it. I initiated a go-around thinking it was wind-shear pushing us down. I also heard a "caution obstacle" message. Initially, as I added power it seemed like we were not able to climb immediately. The go around was not perfect but we quickly became busy as I felt we had a terrain issue along with the wind shear. Then we cleared the wind shear and we started climbing rapidly and our speed quickly became very high and we were very close to our go around altitude of 2000 already. The PM informed the Tower that we were going around for wind shear in which they provided a heading and altitude of 2000. I knew we were about to blow through that altitude so I had him ask for a higher altitude. We over flew the altitude by around 300 ft. The Tower did not want to give us higher as they "did not control that airspace". Eventually we went over to Approach and they provided us
4000 ft. I received a high speed message during the event, as the flaps were still extended and in transition and sometime during all this I asked for the gear to be retracted and then flaps 2 which was out of order. I also called for FL 210 but the cockpit became very busy quickly and we did not get it set right away as the aural high speed message was going off along with trying to listen to ATC. I became concerned with the high speed and trying to comply with the ATC altitude. We eventually cleaned up the plane and reengaged automation. The event certainly shook both of us up; however after we had the aircraft under normal flying conditions we briefed the passengers of what happened, loaded another approach, and returned for a second and successful landing. I should have done better with my call outs and procedures. I should have at least called TOGA, and once clear of the shear: flaps 2, (positive rate) gear up, and FLCH 210. Adding the amount of power I did felt right as we seemed to be rolling and descending in the wrong direction and I felt we needed to climb immediately. However, I was also distracted trying to keep us from climbing too far above our target altitude and got behind on the recovery.

**Narrative: 2**

I do want to preface this account by saying my memory of the events is not very clear, and after the moment we began the go-around, the exact timing and what happened became a blur of events. I was PM on Aircraft X from ZZZ2 to ZZZ. We had started our day at XA:30pm and dealt with delays getting in to ZZZ2 due to thunderstorms. Both our flights from ZZZ to ZZZ2 and from ZZZ2 to ZZZ were filled with multiple areas of convective activity and associated turbulence. As we approached ZZZ, the field had some thunderstorms in the area but the latest ATIS was showing a good prognosis with winds dying down to something like 160 at 7 kts or so. Approach had vectored us around at 4,000 or so and the entire time at that altitude we were dealing with moderate turbulence. The Captain (CA) had to override the auto throttles during this time to keep the speed under control. I do recall the CA briefed the wind shear escape maneuver before we set up for the approach as well. Eventually we got vectored southwest and then set up on final for the ILS X. We were told to slow to 160 kts till ZZZZZ and cleared for the approach. Shortly before the FAF, the CA had given me the proper commands to fully configure the plane and we were stabilized at about 1,700 feet. I’m not really sure when the CA switched to green needles, or when the Autopilot (AP) was kicked off as the approach does require it (I believe it was right before we passed the FAF). As we neared ZZZZZ, we could see the runway and lights below several scattered cloud layers. There was an almost a U shaped thin cloud in front of us that rose a couple hundred feet on both sides of the aircraft. We passed right through the middle of this cloud and it was about this time that the approach completely fell apart. I recall seeing the speed start to bleed off pretty quickly, almost 10 kts past our speed. The CA responded by moving the throttles forward quite aggressively and the speed started to come back. However it felt like we were dropping aggressively and the plane had started a slight roll (10 degrees or so) to the right. I don’t recall if this happened before or after the CA told me we were going around; but we got an obstacle alert. The CA told me we were going around but didn’t state the correct phrase (Go-Around, TOGA, Flaps 2). He did hit the TOGA button though and we began to get speed and altitude back. I remember trying to look at the EICAS and verify TOGA set but the screen was really dark and I couldn’t verify it immediately. I do recall seeing something resembling "obstacle proximity" on my Primary Flight Display (PFD) in red, and I think we got 1 aural "OBSTACLE" alert, but the whole moment happened very quickly. I do remember that I eventually stated TOGA set after I was able to verify despite it being so dark. The last thing I remember about looking at the glide slope was that we were about a 1/2 to 3/4 dot low during the time the speed bled off abruptly. I was completely unsure as to what we were dealing with since we didn’t get a single wind shear alert, and Tower had not told us about any wind shear reports. The glide slope alert never went off either. Either way the go around was done incorrectly. As the CA hit TOGA and I tried to
verify TOGA set, we neglected to move flaps to position 2 right away. I recall telling Tower we were going around and they told us to climb to 2,000 feet and fly heading 040. I think I missed a call, but with the alerts going off, it was extremely hard to focus on one thing at a time. The Captain asked for FLCH 210 and it was really hard to verify the correct button in the dark cockpit but I think I hit it and had 210 dialed in. At this point, the airplane was rocketing upwards and the speed was the only thing I remember going up a lot. The Captain told me gear up and I didn't even think to verify the flaps were at 2 before doing that. As a result we had the landing gear aural alert going off. Then CA told me to bring flaps to 2 and I did. Around this time the airspeed had climbed significantly and the last number I remember was 240 and we started getting high speed (not sure if this was before or after flaps moved to 2). After I had verified the instructions from ATC, the CA told me we needed higher and I told ATC that. They told me they can't do that as they don't control that airspace. The CA also told me we needed to turn to the left to get out of whatever we were dealing with. I don't think I was able to pass that on as Tower was giving us a new frequency and asking if it was wind shear. We did blow through 2,000 and leveled at 2,200 I believe and then got cleared up to 3,000. Before switching I heard the Tower Controller tell the plane behind us that they were getting wind shear alerts for Runway X gain of 20 kts and another plane called up and said they gained 20 (not sure if it was arrival or departure). Eventually the CA called flaps up, and then said incrementally but I had mistakenly moved them up all the way. I then moved them back to position 1 and then up. Either way it was clear we had over-sped them. We cleaned up, switched over to Approach and got vectored around. We then shot the second attempt on the same approach with no issue. Once we landed the CA called Maintenance to inform them of the over speed event and write up the plane which had finished for the night. Overall we were completely caught off guard by this event as it was not expected and the weather conditions had been improving in the area as well. Both me and the CA were pretty shaken up by the event as the obstacle alert is something that neither of us ever expected to see, even with a wind shear event. It is also important to note that I don't believe ATC ever gave us a warning or talking to for exceeding our altitude of 2,000 feet on the go-around. While it's hard to remember the correct details, I think we responded appropriately by a go-around. However we should have done a wind shear escape procedure even though it was never annunciation. Secondly, even though we elected to do a go-around, we didn't use the correct callouts and as a result of that, ATC calls during the event, the obstacle alert, and other distractions; we caused the flap over speed. The go-around was also abnormal to me since we weren't below 1,000 feet and were pretty limited with the altitude available to climb. I think better CRM would have resulted in a correct go-around procedure or wind shear escape procedure as the whole event could be characterized with “tunnel vision” on my part as well. I also should have corrected the Captain from the moment we elected to go-around by taking control of the situation and configuring the airplane even if the Captain was distracted and didn't verbally tell me. ATC didn't help the situation as they did not immediately clear us to 3,000 feet and I was concerned with the 200 feet above assigned altitude that we had deviated from. This distracted me as well with helping to configure the aircraft. Overall, my lack of following the SOP in regards to callouts and actions exaggerated an already difficult situation.

Synopsis

EMB-170 flight crew reported a wind shear event during final approach in turbulent conditions. The flight crew executed a successful wind shear recovery procedure which caused momentary airspeed and altitude deviations.
Time / Day
- Date: 202301
- Local Time Of Day: 0001-0600

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: 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; 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
- Nav In Use: FMS Or FMC
- Nav In Use: GPS
- Flight Phase: Landing
- Airspace.Class B: ZZZ

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.Last 90 Days: 150
- Experience.Flight Crew.Type: 1358
- ASRS Report Number.Accession Number: 1964518
- Human Factors: Communication Breakdown
Human Factors : Situational Awareness
Human Factors : Time Pressure
Human Factors : Workload
Human Factors : Fatigue
Communication Breakdown.Party1 : Flight Crew
Communication Breakdown.Party2 : ATC

**Person : 2**

Location Of Person.Aircraft : X
Location In Aircraft : Flight Deck
Reporter Organization : Air Carrier
Function.Flight Crew : Captain
Function.Flight Crew : Pilot Flying
Qualification.Flight Crew : Multiengine
Qualification.Flight Crew : Air Transport Pilot (ATP)
Qualification.Flight Crew : Instrument
ASRS Report Number.Accession Number : 1964833

**Events**

Anomaly.ATC Issue : All Types
Anomaly.Conflict : Ground Conflict, Critical
Detector.Person : Flight Crew
Detector.Person : Air Traffic Control
Were Passengers Involved In Event : N
When Detected : Taxi
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 taxiing west via [Taxiway] XX to [Runway] XXL during early morning - probably some early morning tiredness - in complete darkness following Aircraft Y. We switched to Tower after [Taxiway] XY and assumed - expectation bias - that Aircraft Y and Aircraft X were the only two aircraft on frequency. Airport was not very busy. Aircraft Y was cleared for takeoff and as they powered up we were told to "line up and wait, Runway XXL." We completed the before-takeoff checklist and as we turned south on [Taxiway] XZ to cross [the Runway] XXL hold-short line - I was FO (First Officer) - I said, "Final's Clear."

However, we did note and talk about that there was an aircraft on final. We assumed - incorrectly, expectation bias - that this aircraft was on approach to [Runway] XXR. I assumed this, since we never heard Tower say something to the effect of, "Aircraft X, Aircraft Y on five-mile final." I'm also unsure if there were any transmissions between Tower and Aircraft Y that we heard, until we were taking the runway. Lastly, if I remember correctly, ATIS was reporting [Runway] XXL departures and [Runway] XXR arrivals - not
that this means that an aircraft couldn't land on [Runway] XXL, but it added to expectation bias. As we continued south on [Taxiway] XZ the lights appeared to be trending toward our runway. At the point we started to question if this aircraft was landing on our runway, we heard Aircraft Y transmit, "OK Tower, what do you want us to do?" Tower then stated, "Aircraft X, continue across to exit runway... Aircraft Y, go around." At this point, Aircraft Y was probably on a one-mile final. I don't recall exactly the amount of time that elapsed between us clearing onto [Taxiway] XA. However, it seemed to be about six to nine seconds. I could see the large Aircraft Y go around at about 100 ft. above where we just were. I think that we should have stopped the aircraft and asked Tower to clarify if the aircraft on final was landing on [Runway] XXR or XXL. Due to darkness and the fact that I don't normally fly at night nor do I get the sight picture of taking the runway with an aircraft landing on that same runway, it is difficult to visually confirm if they were landing on [Runway] XXL or XXR. Stopping the aircraft would also give us more time for this situation to play out and to communicate. It was just a compressed timeline and our brains could not take it all in during that short period. We never saw or realized the lights of Aircraft Y, until we were approaching the hold-short lines and by then it was taking us by surprise. We did not realize any aircraft was on final until that point. On the ATC side, I would like to understand their procedures. After some research, I am curious if Tower is allowed to issue line up and wait, LUAW, clearances during night and periods of low visibility. Additionally, I thought if they instructed an aircraft to LUAW, they had to add, "...aircraft on XX-mile final." I never heard if Tower - we were not on frequency yet - issued Aircraft Y a "continue" or a "cleared to land" clearance. I'd be curious to get those transcripts. I'm also wondering if any air/ground/runway collision avoidance systems in the Tower were activated? Or was the Aircraft Y crew the last link in the chain that prevented this? Was there another controller in the Tower that saw this happening? Why did they issue us a LUAW with an aircraft on such short final for the same runway? Why did we even need to LUAW - there were no delays or backups? Did Aircraft Y sidestep? I have noticed an increase in new controllers - was this a new controller? Maybe they lost situational awareness on how far from landing Aircraft Y was. I really have more questions, since this could have turned out disastrous and my guess is this isn't the first time it has happened. My trust in ATC was somewhat high for Tower controllers. I've heard plenty of new Ground controllers struggling lately, but I assumed the Tower controllers were on a higher level for a place like ZZZ. This has really opened my eyes to how the next aviation accident may play out and serves as significant lesson learned for me.

**Narrative: 2**

We were cleared for "line up and wait" on [Runway] XXL with an aircraft on about a two-mile final for the same runway. When given the clearance, we both acknowledged the runway and noted the aircraft on final. Due to the dark and angle of the aircraft, we thought he was lined up on [Runway] XXL. Aircraft Y queried Tower as to what they wanted him to do. At that point Tower realized they put us in position incorrectly and asked us to expedite across the runway. When we got on the runway we also recognized the mistake. I tried to expedite across but the engines were at idle thrust and did not spool up in time. Tower sent Aircraft Y around when they were about 1/2 mile out. Preventive measures - better communication and coordination between Approach and Tower when landing aircraft on [Runway] XXL during an early morning push.

**Synopsis**

B737-700 flight crew reported being issued a line up and wait clearance from the Tower Controller while there was another air carrier on short final for the same runway. The flight crew continued across the runway per ATC instructions and the other air carrier executed a go-around.
ACN: 1960483

Time / Day
Date: 202212
Local Time Of Day: 0601-1200

Place
Altitude.MSL.Single Value: 1000

Environment
Flight Conditions: IMC
Weather Elements / Visibility: Cloudy
Weather Elements / Visibility: Snow

Aircraft
Reference: X
Aircraft Operator: Air Carrier
Make Model Name: Heavy Transport, Low Wing, 4 Turbojet Eng
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
Flight Phase: Final Approach
Airspace.Class C: ZZZ

Person: 1
Location Of Person.Aircraft: X
Location In Aircraft: Flight Deck
Reporter Organization: Air Carrier
Function.Flight Crew: Captain
Function.Flight Crew: Pilot Flying
Qualification.Flight Crew: Multiengine
Qualification.Flight Crew: Air Transport Pilot (ATP)
Qualification.Flight Crew: Instrument
ASRS Report Number.Accession Number: 1960483
Human Factors: Distraction
Human Factors: Fatigue
Human Factors: Situational Awareness
Human Factors: Time Pressure
Human Factors: Workload
Human Factors: Communication Breakdown
Communication Breakdown.Party1: Flight Crew
Communication Breakdown.Party2: Flight Crew

Person: 2
Location Of Person.Aircraft: X
Location In Aircraft: Flight Deck
Reporter Organization: Air Carrier
Function.Flight Crew: Pilot Not Flying
Function: Flight Crew : First Officer
Qualification: Flight Crew : Multiengine
Qualification: Flight Crew : Instrument
Qualification: Flight Crew : Air Transport Pilot (ATP)
ASRS Report Number. Accession Number: 1960486

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

Events

Anomaly. Deviation - Altitude: Excursion From Assigned Altitude
Anomaly. Deviation / Discrepancy - Procedural: Published Material / Policy
Anomaly. Inflight Event / Encounter - Weather / Turbulence
Anomaly. Inflight Event / Encounter: Unstabilized Approach
Anomaly. Inflight Event / Encounter: CFTT / CFIT
Detector. Automation: Aircraft Terrain Warning
Detector. Person: Flight Crew
Were Passengers Involved In Event: No
When Detected: In-flight
Result. Flight Crew: FLC complied w/ Automation / Advisory
Result. Flight Crew: Executed Go Around / Missed Approach

Assessments

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

Narrative: 1

Commenced approach during near blizzard conditions to ILSXXL. Winds gusting up to 36 kts. Reduced visibility due to blowing snow and low ceilings. Wind direction varying continually from west to north west. Steady wind and gusts varying continually. Runways suddenly opening and then closing. Runway surface conditions being reported as RCC, and or braking action, often times, in conflict with each other (for example, RCC of 4 combined with a braking action of medium, which actually equals an RCC of 3 according to our QRH). We had the required weather to commence the approach; however, we were near the cross wind limit of the aircraft due to RCC conditions. While on final approach, we were again receiving conflicting RCC, versus braking action reports for our runway, along with changing wind direction and gusting speeds. My First Officer and I became inadvertently distracted with the new winds, gusts, RCC, and braking action reports, as we were on the borderline of aircraft limitations. We determined the meteorological conditions exceeded aircraft limitations and needed to go missed approach. Subsequently during the distractions, we inadvertently were not fully configured with landing checklist complete by 1,000 ft. While executing a missed approach we simultaneously heard a momentary proximity alert. In hindsight, I as the Captain, should have not allowed myself, or my First Officer to become inadvertently distracted with the multiple inputs of varying information and changing weather conditions, and just discontinued the approach earlier. In hindsight, also, contributing factors were cumulative fatigue from an extended duty day. By the time
this all occurred, we had already flown approximately over 8 hours and 13 duty hours, as a 2 pilot crew, from maintenance and weather delays.

Narrative: 2

Arriving in ZZZ we were cleared for ILS XXL. Winds were shifting from W to NW at 23 kts. and gusting up to 38 kts. When we began the approach the winds and RCC were within the aircraft limitations. On final approach the winds shifted and the Captain and I began calculating if we were still within aircraft limitations. We determined that the winds and RCC shifted to the degree that they were outside of the aircraft limitations and we decided to go around below 1,000 ft. AGL. However, because we were task saturated we inadvertently were unable to maintain a stable approach (not in the landing configuration with the landing checklist completed.) Accordingly, the decision to go around was made. We had a long duty day and had flown over 8 hours at the time and 13 hours. We had a maintenance delay in ZZZ1 as well as weather delays. These were all factors contributing to this incident. Next time a situation like this presents itself an earlier decision would be appropriate as opposed what had occurred.

Synopsis

Air Carrier flight crew reported an unstable approach accompanied by a terrain proximity alert during the missed approach. The pilots reported distractions, fatigue and poor weather as contributing to the event.
Time / Day
Date: 202212
Local Time Of Day: 1201-1800

Place
Locale Reference
ATC Facility: ZZZZ.ARTCC
State Reference: FO

Environment
Flight Conditions: VMC
Light: Daylight

Aircraft
Reference: X
ATC / Advisory.Center: ZZZZ
Aircraft Operator: Air Carrier
Make Model Name: A320
Crew Size
Number Of Crew: 2
Operating Under FAR Part: Part 121
Flight Plan: IFR
Mission: Passenger
Flight Phase: Descent

Person
Location Of Person
Aircraft: X
Location In Aircraft: Flight Deck
Reporter Organization: Air Carrier
Function
Flight Crew: Pilot Not Flying
Function
Flight Crew: Captain
Qualification
Flight Crew: Air Transport Pilot (ATP)
Qualification
Flight Crew: Instrument
Qualification
Flight Crew: Multiengine
ASRS Report Number
Accession Number: 1956915
Human Factors: Communication Breakdown
Human Factors: Fatigue
Human Factors: Human-Machine Interface
Human Factors: Situational Awareness
Human Factors: Time Pressure
Human Factors: Training / Qualification
Human Factors: Workload
Human Factors: Confusion
Communication Breakdown
Party1: Flight Crew
Communication Breakdown
Party2: Flight Crew

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

**Assessments**

- Contributing Factors / Situations : Airspace Structure
- Contributing Factors / Situations : Chart Or Publication
- Contributing Factors / Situations : Software and Automation
- Contributing Factors / Situations : Procedure
- Contributing Factors / Situations : Human Factors
**Primary Problem : Procedure**

**Narrative: 1**

I was the PM (Pilot Monitoring) 40 miles from ZZZZ at 20000 ft. Asked ATC for lower. Cleared to descend to 4,000 ft. and cleared for the VOR DME 1 Runway XX approach. We were at 16,000 ft. and approximately 10 miles from the VOR when I suggested gear down. Gear selected down at approximately 14,000 ft. and 240 kts. Managed descent to 1,600 ft. and armed the approach. Prior to making procedure turn inbound at 5,000 ft., I asked Approach for present heading for two miles. "Cleared as requested". FO (First Officer) selected heading but 1,600 ft. remained in FCU with V/S defaulted at 2,700 ft. per min. Speed was selected to 200 kts. I suggested turning left direct ZZZZ when it was obvious we were no longer high on the approach. I called out low altitude at approximately 2,200 ft. and asked PF (Pilot Flying) to climb back up to 2,500 ft. We received a "TERRAIN AHEAD" warning when we were close to 1,600 ft. Day Visual conditions and cleared for the visual at this point. Could see terrain at all times. Climbed back above 2,000 ft. and commenced approach. Stable and configured by 1,000 ft. We were kept very high by ATC. Bad descent planning and bad descent technique. First flight for the CA (Captain) for several months due to check pilot duties in the simulator. FO tired from early wake up call, and still new to Company. Ask ATC for lower sooner. Prepare and brief for slam dunk. Communicate better between pilots. Use better techniques for descending fast.

**Synopsis**

An Air Carrier Captain reported while descending on an approach they received a Ground Proximity Warning and climbed back to the appropriate altitude.
ACN: 1949576 (9 of 50)

**Time / Day**

- **Date:** 202211
- **Local Time Of Day:** 1201-1800

**Place**

- **Locale Reference.** Airport: ZZZ.Airport
- **State Reference:** US
- **Altitude.** MSL. **Single Value:** 800

**Environment**

- **Flight Conditions:** Marginal

**Aircraft**

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

**Component**

- **Aircraft Component:** Autopilot
- **Aircraft Reference:** X
- **Problem:** Improperly Operated

**Person : 1**

- **Location Of Person.** Aircraft: X
- **Location In Aircraft:** Flight Deck
- **Reporter Organization:** Air Carrier
- **Function.** Flight Crew: 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: 1949576
- **Human Factors:** Situational Awareness
- **Human Factors:** Training / Qualification
- **Human Factors:** Distraction
- **Human Factors:** Fatigue

**Person : 2**

- **Location Of Person.** Aircraft: X
- **Location In Aircraft:** Flight Deck
Events

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

Assessments

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

Narrative: 1

On LDA Z Runway XX into ZZZ, we followed procedure down to minimums. Pilot Flying (PF) was set to appropriate Ground Based NAV source, Pilot Monitoring (PM) was set to appropriate Magenta NAV source. At 0.3 NM from FAF, FPA mode was selected per procedure. As we descended, PF noticed we were off course slightly (on Autopilot). PF decided to disengage autopilot to track course accurately as ZZZ is a busy airport with tight restrictions. PM task saturation increased and did not notice altitude selector was not set to missed approach altitude when visual was attained. Airplane Flight Director disengaged for cause unknown at the time which increased workload and scan on both pilots. The momentary distraction allowed us to descend more rapidly than desired toward the airport environment and we received a GPWS alert approaching obstacles in the city. Crew noted the alert, saw the obstacles and corrected with power and pitch changes back to stable flight. Tower noted altitude alert to which we replied correcting. Landed without further incident. Cause - PF was newer on the airplane and we had to fly a procedure that was not done commonly. PM had only done a few of them before as well so monitoring of the approach may have been slightly less proficient. Distraction caused by Flight Director allowed us to lose awareness on descent rate and obstacle closure rate. Crew was on final leg of a long 11 hour day which started at XA:30 AM so fatigue may have been apart. Suggestions - More awareness can be given during LDA approaches especially to ZZZ. More proficiency can be attained by doing more LOC approaches out on the line. Long fatiguing day caused by delays earlier including go arounds and catering from previous flight. These are out of the power of the parties involved.

Narrative: 2
On LDA Z XX approach into ZZZ, aircraft was not capturing LOC and maintained Roll mode. After selecting NAV aircraft stayed in Roll mode. I disconnected the autopilot to hand fly the approach. After descending into VMC conditions at 1,100 ft. I continued the approach visually. At 800 ft. ATC advised am altitude alert, I leveled off and continued the approach to a landing. Cause - Descended too fast while on a visual segment of the approach. Suggestions - Be more vigilant on altitude constraints after going visual on an instrument approach.

Synopsis

EMB175 Flight Crew reported autoflight improperly set resulted in higher rate of descent and a low altitude alert on approach.
ACN: 1948969

Time / Day
- Date: 202211
- Local Time Of Day: 1801-2400

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

Environment
- Light: Night

Aircraft
- Reference: X
- 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: Parked

Person
- Location Of Person.Aircraft: X
- Location In Aircraft: Flight Deck
- Reporter Organization: Air Carrier
- Function.Flight Crew: Captain
- Function.Flight Crew: Pilot Flying
- Qualification.Flight Crew: Air Transport Pilot (ATP)
- Qualification.Flight Crew: Instrument
- Qualification.Flight Crew: Multiengine
- ASRS Report Number.Accession Number: 1948969
- Human Factors: Workload
- Human Factors: Time Pressure
- Human Factors: Fatigue

Events
- Anomaly.Deviation / Discrepancy - Procedural: Published Material / Policy
- Anomaly.Deviation / Discrepancy - Procedural: FAR
- Detector.Person: Dispatch
- When Detected: In-flight
- Result.Flight Crew: Overcame Equipment Problem

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

Narrative: 1
I arrived at the aircraft and met my third brand new First Officer (FO) in as many legs. The inbound aircraft was approximately :30 late and we were hoping to make up some time as I was just pushing my first flight of the day at (time), with anticipated weather, aircraft and Crew Member swaps downline, meals and fatigue to be factors later in the night. During the preflight, we realized we were over Allowable Takeoff Gross Weight (ATOG) and had to pull two revenue Passengers and plan a engine bleeds off takeoff, which caused some anxiety with the probationary First Officer. We had Company HAZMAT added to the flight and I signed the required paperwork, but in the hectic environment, forgot to amend the Release for the Operations Agent. On climbout, I noticed the call light was illuminated and I reviewed the ACARS messages. The light was for a Part 117 notification, but there was also a previously reviewed message from Dispatch reminding us to amend the release for the Hazmat with times and initials. The message was sent while we were at the gate. Neither the First Officer nor I remembered seeing the message prior to pushback. It was busy, but since I had a brand new FO again, I was trying to be methodical, slow down and cover everything. The Dispatcher, Ops Agent, freight and Ramp Agents all did their jobs and personally briefed me of the HAZMAT location. The mistake was totally on me.

Synopsis

Air Carrier Captain reported he failed to amend the flight release for added Hazmat prior to departure.
Time / Day
Date: 202210
Local Time Of Day: 0001-0600

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

Environment
Weather Elements / Visibility: Fog
Light: Night

Aircraft
Reference: X
ATC / Advisory.Tower: ZZZ
Aircraft Operator: Air Carrier
Make Model Name: A321
Crew Size.Number Of Crew: 2
Operating Under FAR Part: Part 121
Mission: Passenger
Flight Phase: Final Approach
Airspace.Class B: ZZZ

Person
Location Of Person.Aircraft: X
Location In Aircraft: Flight Deck
Reporter Organization: Air Carrier
Function.Flight Crew: Captain
Function.Flight Crew: Pilot Flying
Qualification.Flight Crew: Instrument
Qualification.Flight Crew: Multiengine
Qualification.Flight Crew: Air Transport Pilot (ATP)
ASRS Report Number.Accession Number: 1946064
Human Factors: Confusion
Human Factors: Fatigue
Human Factors: Situational Awareness
Human Factors: Workload
Human Factors: Communication Breakdown
Communication Breakdown.Party1: Flight Crew
Communication Breakdown.Party2: Flight Crew

Events
Anomaly.ATC Issue: All Types
Anomaly.Flight Deck / Cabin / Aircraft Event: Other / Unknown
Anomaly.Deviation - Altitude: Excursion From Assigned Altitude
Anomaly.Deviation - Speed: All Types
Anomaly.Deviation - Track / Heading: All Types
Anomaly.Deviation / Discrepancy - Procedural: Published Material / Policy
Anomaly.Deviation / Discrepancy - Procedural: Clearance
Anomaly. Inflight Event / Encounter: Weather / Turbulence
Anomaly. Inflight Event / Encounter: CFTT / CFIT
Anomaly. Inflight Event / Encounter: Unstabilized Approach
Detector. Automation: Aircraft Terrain Warning
Detector. Person: Flight Crew
When Detected: In-flight
Result. Flight Crew: Became Reoriented
Result. Flight Crew: Executed Go Around / Missed Approach

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

Narrative: 1

Night flight. Originally FO (First Officer) leg, switched to CA (Captain) arrival for CAT 3. Cat 3 ILS Runway XXY ZZZ, wet, greater than 6000 RVR. Assigned 210 4000 on downwind. 190 speed on base down to 3000. Intercept 3000 and 170 speed to FAF. This would keep us too high. CA told FO to let them know that we would be too high and it likely wouldn't work out. Mentioned it twice, no calls to ATC were made to relay this. Got busy fast. Put In 1700 ft and 1000 fpm descent. Was too tight and fast and high. CA made the poor decision to continue to 1000 and then plan to likely go around. Verbaliizd this. At 1000 ft the plane tried to capture the glide slope. This caused an erratic aircraft behavior leading to turning off the AP and auto thrust. Attempted to stabilize before initiating GA. This went badly and we got nose down. CA and FO said GA around. TOGA was not set. Correct attitude not set. The thrust did not react as expected. CA was confused. We were fully configured for flaps full landing. We then got a PULL UP. FO repeated pull up. CA executed very slowly and incorrectly into a GA and attempted to continue to stabilize the aircraft in the climb out. FO got flaps to 1. Overspeed flap 1. FO seemed confused. CA set flaps to zero to stop the overspeed. Attempted twice unsuccessfully to re engage automation. Once level at 4000, automation was successfully re engaged. Continue around to another CAT 3 ILS XXR. FO set up and checked but approach phase was not activated. On final when CA pushed speed, plane sped up, CA pulled speed and called for activate approach. FO no response. CA activated approach phase, checked all criteria, stable except speed. Crew discussed continuing and we continued. Speed came down and on speed by 600. Successful auto land and taxi in. Med Auto Brake. AP off at 50 kts. Taxi in to Gate XX then broken jetbridge required tow to XY. Crew discussed event. Neither CA nor FO knew what happened initially at 1000 ft. CA took responsibility for the subsequent events and told FO that CA would file required reports. CA put flap overspeed in logbook and met with Maintenance. FO has 6 months in the 320, CA has 7. Trip started early am day 1; ended after midnight day 2. A circadian issue that the CA discussed at home prior to the trip. Both pilots have [several] kids. CA has dying family member adding life stress [to] manage the hospice care daily.

Synopsis
A321 pilot reported unstablized approach.
ACN: 1945726 (12 of 50)

**Time / Day**
- Date: 202210
- Local Time Of Day: 0601-1200

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

**Environment**
- Weather Elements / Visibility.Other
  - Light: Dawn

**Aircraft : 1**
- Reference: X
- ATC / Advisory.Tower: ZZZ
- Aircraft Operator: Air Carrier
- Make Model Name: EMB ERJ 170/175 ER/LR
- Crew Size.Number Of Crew: 2
- Operating Under FAR Part: Part 121
- Mission: Passenger
- Flight Phase: Taxi

**Aircraft : 2**
- Reference: Y
- ATC / Advisory.Tower: ZZZ
- Aircraft Operator: Air Carrier
- Make Model Name: Caravan Undifferentiated
- Crew Size.Number Of Crew: 1
- Operating Under FAR Part: Part 121
- 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: Multimotor
- ASRS Report Number.Accession Number: 1945726
- Human Factors: Distraction
- Human Factors: Fatigue
- Human Factors: Situational Awareness
- Human Factors: Workload
- Human Factors: Communication Breakdown
- Communication Breakdown.Party1: Flight Crew
Person : 2
Location Of Person.Aircraft : X
Location In Aircraft : Flight Deck
Reporter Organization : Air Carrier
Function.Flight Crew : First Officer
Qualification.Flight Crew : Multiengine
Qualification.Flight Crew : Instrument
Qualification.Flight Crew : Air Transport Pilot (ATP)
ASRS Report Number.Accession Number : 1946071
Human Factors : Situational Awareness
Human Factors : Fatigue
Human Factors : Distraction
Human Factors : Communication Breakdown
Human Factors : Workload

Events
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 : Taxiway
Anomaly.Ground Event / Encounter : Aircraft
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
I was CA (Captain) taxiing Aircraft X for departure from the ZZZ "X" gates to Runway XXL, when we narrowly avoided a collision with a Aircraft Y single engine turboprop. Conditions were the pre-dawn period of civil twilight, VMC, dry pavement, and extensive construction zone hazard lighting in the vicinity. CA was on day 5, segment 1, and feeling mildly fatigued. FO (First Officer) was on day 1, segment 1. Aircraft was configured normally with Engine 1 running and APU on. Navigation lights, red beacon, logo lights, and nose taxi light were illuminated. After clearing up a minor issue with the Ramp Controller reversing Taxiways XX and XY in our initial instructions, we had correctly taxied on XY and were holding short of Taxiway XZ. We checked in with Ground for taxi from this position. Ground cleared us to the effect, "Aircraft Y, taxi to Runway XXL via X; you can go over to Tower." There was no mention of any traffic conflicts or sequence. After the FO read back this clearance, I looked left, right, and left again while giving the short taxi brief "via X, no hotspots, clear left." FO responded with "clear right" and I turned on our nose taxi light and began to taxi along XX from XZ to make the right turn onto X. To the left, I was confronted with a vast expanse of blinking hazard lights within the temporary construction zones, as well as the normal runway and city lights against the gray twilight. I did not observe any aircraft movement on taxiway X itself at this time. To the right, I could clearly see all the way along our entire taxi route to the departure end of Runway XXL, and with no traffic ahead of us, I called for the FO to start engine number 2, so that the 2 minute warmup would be complete before we reached the runway. I remained "heads up" during...
the engine start and continued my normal visual scan, and still perceived no traffic from the left. Just as I called "clear left for the right on X" and was turning my vision back to the right for the turn, the FO spoke up with something akin to "what about that guy? He's hauling... it doesn't look like he's going to stop." I looked back left and initially thought the FO was referring to a white panel van I could see speeding through the construction zone and was about to say "he's no factor", when I became aware of motion much closer coming from the left. I immediately stopped the aircraft and now fully observed a Aircraft Y single engine turboprop with navigation lights only (no forward taxi/landing lights illuminated) coming fast from left to right on [taxiway] X and about to hit us. I do not recall if I had our aircraft completely stopped before entering into [taxiway] X or not, but the Aircraft Y was coming close enough that I flashed my lights at him multiple times to make sure he didn't hit us. The Aircraft Y did not alter trajectory, and passed fast by our nose, uncomfortably close. They then continued taxiing rapidly towards the Company A ramp area. After a quick debrief of what just happened, we continued onto X, completed the engine start, taxi flows, taxi briefing, and taxi checklist, when I observed and commented we were still listening to Ground. When the FO switched us to Tower, I inquired, "what was supposed to be our sequence reference that Aircraft Y," in case we had somehow missed a traffic call or misheard our taxi instructions from Ground. Tower seemed unconcerned and said, "Oh, he's an inbound, you can keep going on XA and you'll be number 1 for departure." I replied, "no, he cut us off back there," and Tower replied, "Oh, okay, I'll let him know." The remainder of the flight was conducted without incident. Having no opportunity to debrief with ATC, I do not know if the causal factor was ATC creating a conflict by clearing us onto X in front of Aircraft Y, or if Aircraft Y had been issued instructions to yield to us and then didn't. In any case, procedural control was not sufficient to avoid an incident in this case, and an alert FO's visual scan (while also monitoring an engine start) is what prevented an accident. Contributing factors: Ambient lighting was poor because of time of day and non-standard, busy construction lighting Aircraft Y was taxiing extremely fast and with no forward (landing/taxi) lights Cognitive bias--expecting to see conflicts with large passenger aircraft or ground vehicles, not a small aircraft Expectation bias--did not expect traffic due to low overall ground traffic, no traffic to the right, and no traffic called out to us or heard talking on frequency Fatigue Task saturation Maybe tone down the amount of construction hazard lighting at ZZZ to not create a "wall of light" effect for taxiing aircraft.

**Narrative: 2**

There was no taxiing incursion in the event. Yesterday morning, the Captain was taxiing on XY approaching Taxiway XX in ZZZ leaving the X gates. I contacted Ground approaching Taxiway XX and was told to taxi to XXL via X, monitor Tower, new departure frequency XXX.XX. I read back the instruction and was then heads down putting the new departure frequency in comm 2 standby. The Captain briefed the taxi and I agreed with the taxi he briefed. He then asked me to start engine #2 since there was nobody ahead of us for departure. I was then heads down for the engine start. When the Captain stated "clear left" I noticed that we were not clear left. I brought it to the Captains attention. He continued to taxi while looking for the aircraft. He did not see the Aircraft Y which only had its position lights on and blended in well with the construction zone in ZZZ. It became evident that neither aircraft was going to stop. I then stated again to the Captain about the opposing traffic moving at a high rate of speed. The Captain then saw the traffic right before I was about to step on the brakes to avoid a collision. He immediately stopped the aircraft and avoided the aircraft. The other aircraft still didn't see us and when they did they swerved off the centerline and their brakes. The aircraft continued to taxi in front of us. The Captain questioned Tower about our sequence and told them about the near incident. We continued the rest of the flight without incident. Suggestions: ADSB IN with taxi diagram display Lowered iPad mounts that do not block vision of flight crew
Synopsis

Air carrier flight crew reported critical ground conflict during taxi out for departure, requiring braking to avoid a collision.
**Time / Day**
- Date: 202210
- Local Time Of Day: 0001-0600

**Place**
- Locale Reference
  - ATC Facility: ZZZ.TRACON
  - State Reference: US

**Environment**
- Flight Conditions: VMC
- Light: Night

**Aircraft**
- Reference: X
- ATC / Advisory
  - TRACON: ZZZ
- Aircraft Operator: Air Carrier
- Make Model Name: Regional Jet 700 ER/LR (CRJ700)
- Crew Size
  - Number Of Crew: 2
- Operating Under FAR Part: Part 121
- Flight Plan: IFR
- Mission: Passenger
- Flight Phase: Final Approach
- 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
  - Flight Crew: Captain
- Qualification
  - Flight Crew: Multiengine
  - Flight Crew: Air Transport Pilot (ATP)
  - Flight Crew: Instrument
- ASRS Report Number
  - Accession Number: 1942817
- Human Factors
  - Workload
  - Time Pressure
  - Fatigue

**Person: 2**
- Location Of Person
  - Aircraft: X
- Location In Aircraft: Flight Deck
- Reporter Organization: Air Carrier
- Function
  - Flight Crew: Pilot Flying
  - Flight Crew: First Officer
- Qualification
  - Flight Crew: Instrument
- Qualification
  - Flight Crew: Multiengine
- Qualification
  - Flight Crew: Air Transport Pilot (ATP)
- ASRS Report Number
  - Accession Number: 1942812
- Human Factors: Time Pressure
Human Factors: Fatigue
Human Factors: Workload

**Events**
- Anomaly.Deviation - Altitude: Excursion From Assigned Altitude
- Anomaly.Deviation - Altitude: Overshoot
- Anomaly.Deviation / Discrepancy - Procedural: Published Material / Policy
- Anomaly.Deviation / Discrepancy - Procedural: FAR
- Anomaly.Deviation / Discrepancy - Procedural: Clearance
- Anomaly.Inflight Event / Encounter: Weather / Turbulence
- Anomaly.Inflight Event / Encounter: CFTT / CFIT
- Detector.Automation: Aircraft Terrain Warning
- Detector.Person: Flight Crew
- When Detected: In-flight
- Result.Flight Crew: Took Evasive Action
- Result.Flight Crew: Returned To Clearance
- Result.Aircraft: Equipment Problem Dissipated

**Assessments**
- Contributing Factors / Situations: Human Factors
- Primary Problem: Human Factors

**Narrative: 1**
After two unsuccessful attempts to land at ZZZ1 Airport due to weather. We diverted to ZZZ where we setup for a visual approach to Runway X. We used the RNAV (GPS) Y Runway X approach to back up the visual approach as the ILS approach was out of service. On right downwind for Runway X ATC asked if we had the airport in sight which we did. They cleared us for the visual approach and we continued downwind. We turned about a 5 mile base leg and were descending to 6100. We received an obstacle alert and responded accordingly. This is when I realized that we were improperly conducting a visual approach into ZZZ. I had forgot that we needed to follow the approach guidance from an IAF or radar vectors for this airport. Both of us missed that point during the approach briefing. After adjusting our descent rate for the alert we continued the approach without further incident. After conducting two missed approaches from minimums and diverting with considerable weather in the area that we were constantly avoiding we were mentally fatigued and overlooked the safety alert airport requirements for approaches into ZZZ at night. I am familiar with this airport and its requirements as I have been here many times before. I think the contributing factors involved in our error were rushing during a diversion at night and task saturation that caused us to overlook the requirement. Also contributing was the late hour at the end of a long day and get-there-itis.

**Narrative: 2**
We departed the airport and knew we'd be dealing with weather both most of the way enroute, and at the destination, at night. After attempting an approach twice with hopes the clouds at minimums were transient, we diverted to our alternate. Enroute, while dodging storms at night, it became clear that there was a better alternate behind us, closer. We again coordinated with ATC to turn towards that airport. Due to its proximity and the nature of the irregular ops, we were somewhat task saturated for a bit. We felt good about our decision and focused on the flight path management in relation to the weather, as well as all the briefings, etc. During the approach to landing, cleared for a visual approach and in good VMC, I turned the plane to a base leg, and rolled the VS knob down because we had been high. While communicating with the Captain about my decision...
to turn now, and configuring, our flight path became low in relation to our vertical guidance. It was VMC and we had a clear view to the airport and runway. I was either slowing my descent or had leveled when an obstacle alert sounded. I clicked off AP, applied thrust and started a climb. The alert went away immediately, and the vertical guidance was realigned on the 3 degree glideslope soon after. We continued the approach and landed uneventfully, and during the debrief the Captain informed me of our mistake. Weather both enroute and at the original destination airport. Multiple missed approaches both ending in a hold. Intermittent icing, especially during high work load times. The entire flight was at night. Flying well in to the night.

Synopsis

CRJ-700 flight crew reported receiving an obstacle alert during a night visual approach. After responding accordingly to the alert, the flight crew followed the company approach guidance to a safe landing.
Time / Day
Date: 202209
Local Time Of Day: 0601-1200

Place
Locale Reference.Airport: ZZZ.Airport
State Reference: US
Relative Position.Distance.Nautical Miles: 12
Altitude.MSL.Single Value: 7000

Environment
Light: Daylight

Aircraft
Reference: X
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

Component
Aircraft Component: Navigational Equipment and Processing
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 Not Flying
Qualification.Flight Crew: Multiengine
Qualification.Flight Crew: Air Transport Pilot (ATP)
Qualification.Flight Crew: Instrument
Experience.Flight Crew.Last 90 Days: 165
Experience.Flight Crew.Type: 2200
ASRS Report Number.Accession Number: 1938052
Human Factors: Fatigue
Human Factors: Time Pressure
Human Factors: Workload
Human Factors: Communication Breakdown
Communication Breakdown.Party1: Flight Crew
Communication Breakdown.Party2: Flight Crew

Person: 2
While on approach, we were turned onto a base leg by ATC and given a clearance to turn, slow and descend to 8000 ft. I responded to ATC. However, the Captain was in the middle of finding out his HUD was inoperative. He made the turn but did not dial in the altitude in the MCP window. He realized that he had not put an altitude in the MCP panel and queried me what the altitude was. Unfortunately, I told him the wrong altitude of 7000 ft. We were both heads up at that time, looking for the proceeding aircraft turning final. Leveling off at 7000 ft., I had a feeling something was not right. At that point, ATC issued an Altitude Alert and told us to climb back to 8000 ft. We climbed back to 8000 ft., turned final and intercepted the localizer and landed. Several things where big contributors. I was tired. I had been working PM trips then switched to a early AM wakeup call. After the event, I called in fatigued. Possibly recognizing my night of poor rest, I should have called in fatigued earlier. Second the failure of us not following our standards in setting the MCP panel. I should have queried ATC again to verify our altitude when I realized the Captain did not know what it was. Last, the Captain was tasked saturated with dealing with the inoperative HUD. This definitely was an added distraction and we both should have been more aware of it interfering with tasks at hand.
While on downwind I was trying to get the HUD to work when we were given turn to base and descend clearance at the same time. I heard the turn while I was extending a line in the FMS for final and asked what the altitude was, my FO (First Officer) thought it was seven thousand but wasn’t sure. Typical approach in ZZZ was talking so much and so fast we couldn’t get a verification. I looked at the FAF fix and saw 7000 ft. and figured that was the clearance. Approach then called us and advised the clearance was 8000 ft. and climb back to 8000 ft. and we complied and continued the approach with no further incident. Distractions with the HUD, ZZZ Approach speaking so fast and so much were certainly additive conditions. Its very hard to continually track ZZZ and all of their clearances. Insist on verification of clearance. Take some of the load of the PF, like requiring the Pilot Monitoring to do all radio and FMS programing while below 10,000 ft., or all the time for that matter. That way, the Pilot Flying can concentrate on flying the aircraft and listen better to ATC clearances.

**Synopsis**

Air Carrier flight crew reported receiving an ATC low altitude alert during approach. The flight crew immediately climbed to assigned altitude and continued the approach.
ACN: 1932078

Time / Day
Date: 202209
Local Time Of Day: 0001-0600

Place
Locale Reference: Airport: MSLP.Airport
State Reference: FO

Aircraft
Reference: X
ATC / Advisory: Tower: MSLP
Aircraft Operator: Air Carrier
Make Model Name: Medium Transport, Low Wing, 2 Turbojet Eng
Crew Size. Number Of Crew: 2
Operating Under FAR Part: Part 121
Flight Plan: IFR
Mission: Passenger
Flight Phase: Landing

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: 1932078
Human Factors: Situational Awareness
Human Factors: Fatigue

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)
ASRS Report Number: Accession Number: 1931059
Human Factors: Situational Awareness
Human Factors: Distraction
Human Factors: Time Pressure

Events
Anomaly. ATC Issue: All Types
Anomaly. Conflict: Ground Conflict, Critical
Anomaly: Ground Incursion: Runway
Detector: Person: Flight Crew
When Detected: In-flight
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

Having received a landing clearance the transition from ILS DME2 Runway 14 to a visual approach was continued. Captain was Flying Pilot. 1000 ft. stable call was made. At about 600 ft. I asked the FO (First Officer) "Is that paint on the runway?" Slight hesitation and I think the answer was something like "not sure" or "that is a big paint spot". 500 ft call was made. Landing was completed. At about 80 kts. the FO called out "truck on runway". I applied very heavy brakes slowing the aircraft quickly to about 20 kts. I exited the runway at Taxiway "A" continuing to the gate and parking the aircraft. At time of landing the sun was low in the sky and behind the aircraft, the truck was driving down the runway the same direction we were landing. The vehicle was on the center line of the runway, I think the term is "Relative Movement" since the vehicle was driving down the center line there was no movement of the vehicle relative to the windshield. This made it difficult to identify the object as a vehicle. The vehicle just blended into the background. The vehicle departed the runway northwest of Taxiway "A" to the north side of the runway. As we were taxiing to the gate the FO asked the Tower Controller if in fact he cleared us to land and the Controller stated "Yes". After we parked again the FO asked if a landing clearance was issued and the Controller stated "Yes". The Controller said he told the vehicle to clear the runway but said the vehicle driver must have missed the transmission. [A contributing factor was fatigue related to early] duty day and 10 hours behind the door the night before, and [an early] duty day on the day of the event. I think there was only one Controller on duty.

Narrative: 2

During the approach, the CA (Captain) (PF (Pilot Flying)) ended up unexpectedly high on the visual approach (backed up by the ILS DME 2) once turning to final. He used gear extension, full speed brakes and manual flying to bring the aircraft to within stable limits by the 500 ft. callout, but our attention was focused on whether we would need to perform a Go-around or not. This channelized attention led to a later-than-normal completion of the before landing checklist. All this is to say the final moments of this approach were rushed and compressed. Shortly before reaching the flare, the CA asked, "Is that something on the runway? Or is that just paint?" We saw something yellow about halfway down the runway, slightly left of centerline, but at a distance of over 1NM it looked like a strip of yellow paint. We had been cleared to land and were the only aircraft talking with approach for several minutes at this sleepy airport. So cognitively I convinced myself it must be some type of paint indicating an area of a temporary repair or something non-standard that must be specific to Mexico (I am inexperienced with Mexico airports). I said, "I think it's just paint" as we entered the flare, and I cross-checked the yellow spot out front several times as I confirmed spoilers extending on touch-down. As the flare and touchdown were happening, the shape of the yellow appeared to be three dimensional rather than two dimensional like paint, and I quickly realized it was a vehicle stopped on the runway, approximately 20 feet to the left of centerline. I called out, "That's a vehicle on the runway!" to the CA rather than "Go-Around" since thrust reversers had already
been selected. The CA came heavily on the brakes as I called Tower saying, "Get that truck off the runway!" Before my transmission was halfway over, the vehicle (ambulance style van), which was parked facing away from us, peeled out and quickly drove into the dirt/grass off the left of the runway. I do not think my transmission had anything to do with its movement unless the occupants were listening to our frequency. We were probably never closer than 1000 ft. to the vehicle, but if it had not moved we would likely have still been about 30 kts. by the time we overtook its position. It is unclear whether we could have gained enough separation to the right to avoid collision with the left engine had we deviated to the right of centerline without departing the runway surface to the right. When we cleared the runway at Taxiway A the vehicle was behind us, so I estimate its location to have been at approximately 4500 ft. from the approach end of Runway 14. Before shut down I debriefed with the Tower Controller. He confirmed we had been cleared to land but offered an excuse that he had told the vehicle to exit the runway but it had not complied. He promised to review the communications. The visibility was extremely clear and there are no obstructions to the Tower view of the runway area, and the Controller had never mentioned any traffic to us. The Tower Controller should not have cleared us to land with a vehicle on the runway, or should have canceled our clearance when it became apparent there would be a conflict. He likewise should have informed us of the traffic. The CA's steep approach compressing our timeline and focusing our attention was a contributing factor, but visually the yellow 'spot' truly looked two dimensional until the round out and flare for the distance we saw it at (I have excellent vision and do not need or wear glasses). Still, my cognitive disbelief that it *could* be a vehicle stopped me from directing a go-around at the last possible opportunity. But I believe our actions, perceptions and decisions were contributing rather than causal factors. Tower Controller should not give clearance to land with a vehicle on the runway. Tower Controller should cancel clearance or direct the go-around when a conflict is apparent. If I see anything that causes me confusion or still seems odd by the time of the flare I will direct or execute a go-around.

**Synopsis**

Air carrier flight crew reported heavy braking was required to avoid a collision with a truck on their runway at MSLP. The Tower Controller had instructed the truck to exit the runway but the truck failed to do so.
ACN: 1932036 (16 of 50)

Time / Day
Date: 202209
Local Time Of Day: 1801-2400

Place
Locale Reference.ATC Facility: ZZZ.TRACON
State Reference: US
Relative Position.Angle.Radial: 090
Relative Position.Distance.Nautical Miles: 15
Altitude.MSL.Single Value: 9000

Environment
Light: Daylight

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 B: ZZZ

Component
Aircraft Component: Fuel 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: 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: 1932036
Human Factors: Communication Breakdown
Human Factors: Fatigue
Human Factors: Situational Awareness
Communication Breakdown.Party1: Flight Crew
Communication Breakdown.Party2: ATC

Person: 2
Cleared to intercept LOC, while being vectored on final approach. The Flight Crew failed to do so, without notifying Approach. There was no loss of separation. ATC did accommodate the failed intercept with vectors that eventually lead to a stabilized approach and a safe landing. Distractions, threats, and task saturation that led the Flight Crew to prioritizing aviating over communication were the following: Non-Normal Fuel Imbalance that resulted in a return to departure airport situation, minutes after takeoff (1500 pounds). Running the QRH and troubleshooting for a possible fuel leak during most of the return to the field flight time. Becoming situationally aware, that landing immediately would result in max landing weight being exceeded, while simultaneously realizing that the Fuel Imbalance was no longer trending negatively. ATC’s efforts to expediously vector Fight Crew to begin the approach, while being too high to safely do so. Notifying Flight Attendants, Passengers, and Dispatch of the issue and decision to return to the field. First flight of the day with a Cockpit Crew that had never flown together before. Fifth day of reserve with minimum sleep. The previous duty day ended hours after midnight with a "Sound Check" and Live DJ Wedding hotel event that ended at XA30 AM. This Crew Member estimated less than four hours of sleep. The Flight Crews thoroughly debriefed the event and came to the following conclusions: The above situation may have been mitigated, had the Flight Crew better coordinated with each other and ATC. The result may have been longer vectors, to provide more time to process the increased task loading and troubleshooting, once the Crew realized that the fuel imbalance trend had been reduced and eventually reversed. Taking a pause to communicate that the overweight landing was now a higher risk (versus the fuel imbalance) may have helped ATC to aid the Flight Crew with less expeditious
vectoring and thereby avoid task saturation considering the high number of threats experience in the short flight back to the originating airport.

**Narrative: 2**

Encountered a sudden fuel imbalance annunciation showing 1,300 pounds difference shortly after takeoff. Made decision to return but got rushed after ATC cleared us direct to field. While running checklists and coordinating with Flight Attendants, the Captain flew through final. We immediately coordinated to get vectors and landed [uneventfully].

**Synopsis**

B737-700 flight crew reported a track deviation occurred while returning to departure airport following a fuel imbalance issue.
Time / Day
Date: 202209
Local Time Of Day: 0601-1200

Place
Locale Reference.ATC Facility: ZZZ.TRACON
State Reference: US
Altitude.MSL.Single Value: 10000

Environment
Light: Daylight

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
Flight Phase: Climb
Airspace.Class B: ZZZ

Component
Aircraft Component: Engine Air Pneumatic Ducting
Problem: Improperly Operated

Person
Location Of Person.Aircraft: X
Location In Aircraft: Flight Deck
Reporter Organization: Air Carrier
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: 1931686
Human Factors: Situational Awareness
Human Factors: Fatigue

Events
Anomaly.Aircraft Equipment Problem: Less Severe
Anomaly.Deviation / Discrepancy - Procedural: Published Material / Policy
Detector.Person: Flight Crew
When Detected: In-flight
Result.Flight Crew: Became Reoriented
Result.Flight Crew: Overcame Equipment Problem

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

Narrative: 1

We turned the engine bleeds off while taxiing into the gate from our first flight, to prevent a dual bleed light. The First Officer forgot to turn them back on after engine starting. We performed the appropriate checklists and the appropriate calls were made, but we forgot to visually check the bleed sources were in the correct position, when the Captain responded to the checklist. We climbed out as normal, but as we were performing the 10,000 ft. Checklist, the Cabin Pressure Warning horn and light went off. We leveled off at 10,000 ft., told ATC and immediately realized what we had done. We turned the bleeds on, went through the QRH to resolved the issue, and the cabin pressurized as normal. We notified ATC and the Flight Attendants, continued the climb and proceeded on course as intended. No others issues entailed during the flight. Threats to this situation were an extremely early report time and early morning awakening for both Crew Members. First Officer was new and Captain visually looked at bleeds during checklist and responded with what was "expected" but not as the bleeds actually were. Making sure that you respond to what you see not what you expect during checklist callouts And verifying bleed sources are in the correct position, after engine starting and shutting down the APU.

Synopsis

B737-700 First Officer reported the flight took off with the pneumatic bleed valves closed, resulting in failure to pressurize. The crew noticed and corrected the error.
**ACN: 1928964 (18 of 50)**

**Time / Day**
- Date: 202208
- Local Time Of Day: 1801-2400

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

**Aircraft**
- Reference: X
- 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: Parked

**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: 1928964
- Human Factors: Situational Awareness
- Human Factors: Time Pressure
- Human Factors: Distraction
- Human Factors: Fatigue

**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: 1928972
- Human Factors: Situational Awareness
- Human Factors: Fatigue
- Human Factors: Distraction
- Human Factors: Time Pressure
Events
Anomaly.Conflict : Ground Conflict, Critical
Anomaly.Deviation / Discrepancy - Procedural : Published Material / Policy
Anomaly.Deviation / Discrepancy - Procedural : Clearance
Anomaly.Ground Event / Encounter : Vehicle
Result.Flight Crew : Took Evasive Action

Assessments
Contributing Factors / Situations : Company Policy
Contributing Factors / Situations : Human Factors
Primary Problem : Human Factors

Narrative: 1
Failed to shutdown both engines on Shutdown Flow. Captain called for shutdown checklist. First Officer read the checklist in its entirety. Crew realized both engines start levers were not placed to cutoff after checklist completion and then immediately placed both start levers to cutoff and verified the engines were shutting down. Cause - It was the end of nearly an 11 hour duty day. Taxing into [Gate] DXX a tug cut in front of the aircraft and the Captain needed to make an abrupt stop to avoid hitting the tug. I believe that distraction pulled some of our focus during our shutdown of the aircraft along with the longer busy duty day added to some fatigue. Suggestions - Turning up the dome light after parking at the gate. Following the shutdown flow especially after engine start levers cutoff verifying the engine shutdown by decrease in N1, EGT, N2 and fuel flow.

Narrative: 2
Crew failed to recognize engines not shut down during shut down flow and while completing shut down checklist until Crew recognized issue after checklist completion while putting personal equipment away. Cause - Long flight day dealing with weather delays starting in ZZZ1 and weather, turbulence and significant mountain wave ZZZ2/ZZZ. Mitigated all issues but felt the fatigue setting in. Entering alleyway to gate had a tug moving along ramp edge suddenly turn to cross ramp in front of jet. I had to lock brakes to stop quickly which became a mental distraction. Day flyer, flying a night trip and had turned down cockpit lighting prior to running checklist, as I would during daylight hours and did not turn on dome light until after checklist. Suggestions - Slow down the shut down checklist. Do not turn down flight deck lighting until getting to that item on checklist.

Synopsis
B737-800 flight crew reported they failed to shut down both engines during their shutdown flow. The crew stated distraction caused by a conflict with a tug contributed to the event. Fatigue was also cited as a factor.
ACN: 1916238 (19 of 50)

**Time / Day**
Date: 202207
Local Time Of Day: 1801-2400

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

**Environment**
Flight Conditions: Marginal
Light: Dusk

**Aircraft: 1**
Reference: X
ATC / Advisory.Tower: ZZZ
Aircraft Operator: Air Carrier
Make Model Name: Regional Jet 200 ER/LR (CRJ200)
Crew Size.Number Of Crew: 2
Operating Under FAR Part: Part 121
Flight Plan: IFR
Mission: Passenger
Nav In Use: GPS
Nav In Use: FMS Or FMC
Flight Phase: Initial Approach
Flight Phase: Final Approach
Flight Phase: Landing
Route In Use: Visual Approach
Route In Use.STAR: ZZZZZ4
Airspace.Class B: ZZZ

**Aircraft: 2**
Reference: Y
ATC / Advisory.Tower: ZZZ
Make Model Name: Any Unknown or Unlisted Aircraft Manufacturer
Flight Phase: Takeoff / Launch
Airspace.Class B: ZZZ

**Person: 1**
Location Of Person.Aircraft: X
Location In Aircraft: Flight Deck
Reporter Organization: Air Carrier
Function.Flight Crew: Captain
Function.Flight Crew: Pilot Flying
Qualification.Flight Crew: Multiengine
Qualification.Flight Crew: Air Transport Pilot (ATP)
Qualification.Flight Crew: Instrument
ASRS Report Number.Accession Number: 1916238
Human Factors: Communication Breakdown
Human Factors: Fatigue
During visual approach to XXL, First Officer (FO) was pilot flying (PF) and I was pilot monitoring (PM). Both pilots were unfamiliar with simultaneous visual approach procedures into ZZZ1. We were cleared on the visual following traffic to the parallel. Due to heavy glare and haze, FO was unable to maintain visual with the runway and I opted to
take controls since I could see the runway and traffic to follow. ATC had assigned a speed without specifying when to slow or when to contact Tower and we crossed the FAF at 170 kts. In the ensuing rush to contact Tower, finish configuring and run the before landing checklist, we ended up making our stabilized call at 500 ft. After touchdown and before rolling through XXR, I heard Tower clear an aircraft for takeoff on XXR and I came to a rapid stop short of XXR. Neither pilot had heard an ATC clearance to land and hold short of any runway or taxiway. We cleared the Runway at Taxiway 1 and taxied to the gate without further incident. Task saturation and tunnel vision led me to fail to call for or execute a go around when it was clearly called for. Unfamiliarity with the visual approach procedures at ZZZ1 and a long duty day were contributing factors to poor decision making and situational awareness. More detailed information on unique procedures into large airports to ensure pilot familiarity, better fatigue mitigation and a continued emphasis on executing a go around when an approach becomes unstable.

**Narrative: 2**

After almost a 5 hour maintenance delay at ZZZ2, an integrated drive generator was deferred and we completed one of the two legs that were originally on our schedule before timing out. I was pilot flying (PF) this leg and elected not to brief the arrival into ZZZ1 on the ground due to lots of variables and abnormals for compliance with the MEL on the departure briefing. In the climb-out, I called for Autopilot on to start looking at the arrival and complete a brief then. Both the Captain and I were unfamiliar with ZZZ1. Once we reached cruise, we immediately got a descend via clearance on the ZZZZZ 4 arrival. I had not briefed yet because we were discussing the Visual as we were told to expect that. Being unfamiliar with this, we did not know how to correctly program the FMS. We spent a lot of time trying to figure this out while we were descending down. I eventually briefed the visual backed up with the ILS XXL as I normally would for a visual and briefed a threat to be the Visual procedure as we weren't sure what to expect or how that would go. Descent check was called for at about 13,000 ft. We ultimately ended up high and fast to join the intercept course to the XXL LOC. ATC asked a few times if we had the airport in sight, but it was evening and the sun was setting right in the direction the airport was. There was also a haze layer creating visual illusions and I could not find the runway. As we got closer, I could tell we were getting high and fast and needed to accept the visual to get configured and on glide path. The captain saw the runway and called it in sight and we attempted to slow and get set up. ATC had us at 210 kts. and 5000 ft., then eventually gave us 180 kts. or greater. We went flaps 8/20 and gear down with full boards to lose altitude. I still did not have the airport in sight looking right into the sun so we swapped controls and I transitioned to pilot monitoring (PM). ATC never handed us off to Tower so once inside the FAF we got fully configured by going flaps 30/45 in one call, and never completed the correct calls for check spoilers, flaps 45 before landing check. As flaps were in transit to 45, I called Tower for landing clearance. During their read back, we got a FLT SPOILER DEPLOY caution and retracted the spoilers. I read back landing clearance and we continued to land. During the roll-out, it appears Tower cleared someone on XR to takeoff before we crossed that intersection. Unsure if we missed a land and hold short clearance, the captain used the breaks to stop before the XR intersection. Tower proceeded to clear traffic to land behind us on XXL, give an aircraft a line up and wait clearance for XXL while we are stopped on the runway with no further instruction. We elected to taxi off and wait for further instructions, and the remainder of the taxi-in was uneventful. Both the captain and I were unfamiliar with ZZZ1, their arrivals and charted visuals. Fatigue definitely played a role as this was already into our 2 hour extension period from a reflow on a 13.5 hour duty day. The short flight was a threat and did not give us enough time to brief and prepare for the visual. Neither of us were fully clear on the procedures involved with the charted visuals and how the FMS should be set up/used. ATC was nearly pressuring us to report the airport in sight so they could clear us for the visual. At the time, accepting the
visual seemed like the only way to get in a position to be stabilized on the approach course because ATC did not give us vectors or lower altitudes to help put us in position. The sun was setting and was shining right at us, and combined with the haze, it was very difficult to find the airport having not been familiar with the area. From the very beginning, we could have asked for delay vectors on the arrival to get caught up and try to understand the charted visual procedures. Then coming in closer, we could have asked for a slower speed to help create time and get configured with at least flaps 8 and 20. Without having the airport in sight, we also could have asked for the ILS but it seemed that everyone else was getting in with the visual so ATC kept asking if we had the airport in sight so they could send us on our way. Once cleared for the visual, it was apparent we were not in a good position but ATC cleared us anyway and we tried to make it work. At this point, it got really hectic and busy, we should have broken off the approach and came back around. We were not stabilized by 1000 ft. which should have been a mandatory go-around. I don't think I ever once considered doing a go-around because of task saturation and tunnel vision to keep the aircraft under control and clear of parallel traffic. I could have also asked the Tower Controller to say again with the landing clearance. Going back to liveATC, it appears the Tower Controller cleared someone to line up and wait on XXR and he told us that there was traffic in position and holding on the intersecting runway, current winds and cleared to land. The only part I heard was the landing clearance, but I was aware he said more. I just did not hear the other parts of the transmission due to the caution coming on at the same time. A little more direction/assistance from ATC would have helped tremendously, but they probably had no way of knowing we were unfamiliar with these procedures. It would also be helpful to have information on our company charts about these procedures, especially since ZZZ3 based crews rarely go to this area. Bottom line, we should have gone around at the latest at 1000 ft. when we were not stabilized.

Synopsis

CRJ200 flight crew reported multiple issues resulted in an unstable approach that would have required a go around. Instead, the crew continued the landing and were stable by 500 ft AGL.
**Time / Day**

Date: 202207
Local Time Of Day: 0001-0600

**Place**

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

**Environment**

Flight Conditions: VMC
Light: Night

**Aircraft**

Reference: X
Aircraft Operator: Air Carrier
Make Model Name: B767 Undifferentiated or Other Model
Crew Size.Number Of Crew: 2
Operating Under FAR Part: Part 121
Flight Plan: IFR
Mission: Passenger
Flight Phase: Parked

**Component**

Aircraft Component: Aircraft Cooling System
Aircraft Reference: X
Problem: Malfunctioning

**Person**

Location Of Person.Aircraft: X
Location In Aircraft: Flight Deck
Reporter Organization: Air Carrier
Function.Flight Crew: Pilot Flying
Function.Flight Crew: Captain
Qualification.Flight Crew: Instrument
Qualification.Flight Crew: Multiengine
Qualification.Flight Crew: Air Transport Pilot (ATP)
Experience.Flight Crew.Total: 10890
Experience.Flight Crew.Last 90 Days: 197
Experience.Flight Crew.Type: 5702
ASRS Report Number.Accession Number: 1916153
Human Factors: Communication Breakdown
Human Factors: Situational Awareness
Human Factors: Time Pressure
Human Factors: Troubleshooting
Human Factors: Fatigue
Communication Breakdown.Party1: Flight Crew
Communication Breakdown.Party2: Dispatch
Events

Anomaly.Aircraft Equipment Problem : Critical
Anomaly.Deviation / Discrepancy - Procedural : MEL / CDL
Anomaly.Deviation / Discrepancy - Procedural : Maintenance
Anomaly.Deviation / Discrepancy - Procedural : Published Material / Policy
Anomaly.Deviation / Discrepancy - Procedural : FAR
Anomaly.Ground Event / Encounter : Weather / Turbulence
Detector.Automation : Aircraft Other Automation
Detector.Person : Flight Crew
Were Passengers Involved In Event : N
When Detected : Taxi
Result.General : Release Refused / Aircraft Not Accepted
Result.General : Maintenance Action
Result.General : Flight Cancelled / Delayed
Result.Flight Crew : Returned To Gate

Assessments

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

Narrative: 1

Reported to ZZZ, Date, XX:30, H3005. OAT at one time was discussed to be as high as 107 degrees F. Met FO (First Officer) at FPA (Flight Planning Area) and completed flight planning assignments. Proceeded to Gate XX and prepared aircraft for on-time departure of Aircraft X. Main cabin door and cargo door closed...was waiting for Final DG report. Called ZZZ Operations about Final DG...no report. Sent Load Planning a message and called Dispatch regarding no Final DG Report...Final DG report arrives about 15-20 minutes after doors closed. (Note: very hot on flight deck, estimate of 95 degrees F.) Push the aircraft, start both engines, and taxi to XXL/WW. Given instructions to line up and wait. Once on the active runway, Equipment Overheat EICAS message. Obtained clearance to taxi clear of Runway XXL. Initiated QRH procedures, switch to Standby, wait 5 minutes to determine if Overheat condition still present. Once switched to Standby, overheat annunciation inhibited for 5 minutes. After 5 minutes overheat still present. Contacted ZZZ Operations and asked for a gate return. Was told no wide body gates available, did you call Maintenance? Maintenance release sent. ZZZ Operations instructed me to contact ZZZ Maintenance. ZZZ Maintenance asked me to confirm the operating configuration of the aircraft and I confirmed. ZZZ Maintenance asked if I wanted to reset the system. I declined the request. I again asked ZZZ Operations for a gate, no gate available. (Note: flight deck temperature estimated in excess of 100 degrees F. QRH discussed failure of instruments, due to excessive heat. I was concern for safety of flight deck occupants and possible damage to the aircraft.) Contacted Dispatch and explained the situation. Dispatch called ZZZ Operations and eventually Gate XX was assigned for gate return. Shortly after parking at XX, ZZZ Tech Operations Personnel arrived on the flight deck and showed me an iPad picture of a closed E and E bay exhaust valve. Tech Operations indicated that the exhaust valve was not modulating open. Deplaned passengers from aircraft. At first, Tech Operations wanted to MEL the malfunctioning exhaust valve. I indicated I would not operate the aircraft with the MEL. Tech Operations then stated that they would replace the exhaust valve. Tech Operations indicated that the repair would be complete by XE:15pm. At approximately XE:30pm, I was notified of an aircraft swap. FO and I proceeded to the
FPA, I reviewed and authorized a new release, and proceeded to Gate XY. At some point, I received a call from Crew Scheduling and was asked if the flight deck crew was willing to extend IAW FAR 117. The FO and I were willing to extend. CCO XH:28.pm. To continue, storm developed around ZZZ, with associated lightning...Ramp Closed. Ramp opened around XG:00pm. The flight began boarding. We started taking on the required fuel and I was confident the flight would takeoff prior to CCO Time. At approximately XG:50pm, I noticed that the cargo door was closed, but did not receive a DG report, main cabin door closed. I sent a message via Chat and asked about the DG report and asked to confirm that baggage loading was complete. After a several minutes it was reported that baggage cans from the previous flight were still on the previous aircraft and that baggage cans for that flight had not been loaded. ZZZ Operations announced that the flight was cancelled. Passengers deplaned. The FO and I left the aircraft at approximately XH:30. Crew Scheduling called and left a message that Aircraft X would operate/depart Date1, XR:30 am. I got home at approximately XJ:15am, Date1, and into bed at approximately XK:00 am. Prior to bed, I took 3 Bayer aspirins, as I had a significant headache. I estimate that I fell asleep at approximately XL:00 am. My alarm clock was set for XO:30 am. Once awake I determined that I was fatigued and was not fit for duty. I called Crew Scheduling and reported fatigued. The scheduler requested a time when I would be fit...I responded mid to late afternoon on Date1. I woke up at approximately XS:30 am, and called Crew Scheduling advising them that I was no longer fatigued. I would like to add that I believe my prolonged exposure to much higher-than-normal ambient temperatures added to my state of fatigue.

Synopsis

B767 Captain reported numerous delays were caused by mechanical, communications and ground weather. The flight eventually cancelled and the Captain called out fatigued due to the situation.
**ACN: 1915224 (21 of 50)**

**Time / Day**
- Date: 202207
- Local Time Of Day: 0601-1200

**Place**
- Locale Reference: Airport: ZZZ.Airport
- State Reference: US

**Environment**
- Flight Conditions: VMC

**Aircraft**
- Reference: X
- ATC / Advisory: Ramp: ZZZ
- Aircraft Operator: Air Carrier
- Make Model Name: EMB ERJ 170/175 ER/LR
- Crew Size: Number Of Crew: 2
- Operating Under FAR Part: Part 121
- Flight Plan: IFR
- Mission: Passenger
- Flight Phase: Taxi

**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
- Experience: Flight Crew: Total: 2
- ASRS Report Number: Accession Number: 1915224
- Human Factors: Communication Breakdown
- Human Factors: Distraction
- Human Factors: Human-Machine Interface
- Human Factors: Situational Awareness
- Human Factors: Time Pressure
- Human Factors: Training / Qualification
- Human Factors: Workload
- Human Factors: Fatigue

**Communication Breakdown**
- Party1: Flight Crew
- Communication Breakdown: Party2: Flight Crew

**Person : 2**
- Location Of Person: Aircraft: X
- Location In Aircraft: Flight Deck
- Reporter Organization: Air Carrier
- Function: Flight Crew: Captain
During push-back at ZZZ at XA:28 local time, the new ATIS stated conditions codes 5,5,5 100% wet for our departure runway. The Performance Data indicated dry conditions; so I (First Officer) contacted Operations to have them change the condition code to wet during push back. I also started the #1 engine, then requested a new performance data through ACARS. As the ground crew stopped the push back, the new performance data printed out and I began inputting the data into the FMS. Simultaneously, the Captain conducted a control check (as I monitored) and called for "flaps 2, taxi" to begin movement. I looked at the EICAS verified steering was disengaged and the Flaps were set to 2. I looked up and didn't see any ground crews. I then said, "flaps set, steering engaged." The Captain then began to taxi forward. That's when I noticed the tug and ground crews directly under the airplane walking back. I immediately yelled "STOP, STOP, STOP" and applied brakes. The aircraft moved forward about 3-5 ft. before coming to a complete stop with equipment and personnel directly under the aircraft. The Captain acknowledged and set the parking brake. No ground personnel or equipment contacted the airplane. We then received a salute from ground personnel as they departed the area of operations. The Captain and I discussed the situation and continued the rest of the flight without incident. This event occurred early in the morning when both crew members were tired. Airfield conditions called for new performance data which caused a slight distraction for both crew members. The Captain has just over 80 hours as pilot in command (PIC) following a long break from the company. Distraction with the performance data, inexperience, and lack of situational awareness caused the Captain to lose focus and forget to wait for ground personnel to leave the area before conducting the control check and calling for taxi. As the First Officer (FO), I should have been more situational aware of what the Captain was doing and the location of ground personnel. Ensure Captains are adequately trained, comfortable, and ready prior to being released from IOE. After flying with the Captain for the entire sequence, it is my opinion that the Captain needed more time to develop flows, understand procedure, and become operationally proficient before being released to the line.
**Narrative: 2**

VFR conditions, ATIS reporting wet runway conditions. Communication with Operations to change to wet for correct performance data numbers. Performance numbers came out during push causing a distraction. After engine start and tow-bar release aircraft moved approximately two feet before CRM and stopped the plane without contact, damage or injury. Stopped reviewed performance data, ran/ reran all flows and checklist at a thorough pace and continued. Early start in the dark, operations and communication with operations to correct the field conditions leading to an unnecessary interruption/ distraction causing an input change to the FMS that would have been best accomplished at the gate in the normal routine manner. Communication with Operations to ensure field conditions that the performance data will be calculated on the latest ATIS or official weather. This should be accomplished after obtaining weather information during the normal preflight sequence, especially in changing weather conditions. With the discovery of any unusual information the parking brake should be set, verify ground crew position and both pilots agree on the change. This is how I will approach this or a similar situation in the future.

**Synopsis**

Air carrier Captain and First Officer reported a failure to use SOPs during push back and brake release. The Captain and First Officer failed to communicate and released brakes while the ground crew was still under the aircraft. There were no injuries or equipment contact.
ACN: 1915174

Time / Day
Date: 202207
Local Time Of Day: 0001-0600

Place
Locale Reference.Airport: ZZZZ.Airport
State Reference: FO
Altitude.AGL.Single Value: 0

Environment
Weather Elements / Visibility: Rain

Aircraft
Reference: X
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: Parked

Component
Aircraft Component: Unknown
Aircraft Reference: X
Problem: Malfunctioning

Person
Location Of Person.Aircraft: X
Location In Aircraft: Flight Deck
Reporter Organization: Air Carrier
Function.Flight Crew: Pilot Flying
Function.Flight Crew: Captain
Qualification.Flight Crew: Air Transport Pilot (ATP)
Qualification.Flight Crew: Multiengine
Qualification.Flight Crew: Instrument
ASRS Report Number.Accession Number: 1915174
Human Factors: Troubleshooting
Human Factors: Workload
Human Factors: Fatigue
Human Factors: Physiological - Other

Events
Anomaly.Aircraft Equipment Problem: Less Severe
Anomaly.Flight Deck / Cabin / Aircraft Event: Smoke / Fire / Fumes / Odor
Anomaly.Flight Deck / Cabin / Aircraft Event: Illness / Injury
Anomaly.Deviation / Discrepancy - Procedural: Published Material / Policy
Detector.Person: Flight Crew
Detector.Person : Flight Attendant
When Detected : Aircraft In Service At Gate
Result.General : Flight Cancelled / Delayed
Result.Generic : Maintenance Action

Assessments
Contributing Factors / Situations : Aircraft
Primary Problem : Aircraft

Narrative: 1
Approaching the gate it was clear a serious fume event had/was taking place. Walking down the jet-bridge I almost immediately had a hard time breathing the air. Once I entered the cockpit, it was 100% clear it was fume event. I told the FAs (Flight Attendants) to deplane. Maintenance had NOT written up the issue much to my surprise. I immediately entered the fume event in the logbook. The air in the aircraft was so bad I had to depart to the gate area. Later I agreed to complete engine run ups and maintenance checks. The issue did not go away. Soon after I started to feel sick. I stated this to my FO (First Officer) and the FAs. Several hours later the flight cancelled and assumed I was going to the hotel. Scheduling demanded that I DH (Dead Head) back on a flight to ZZZ. I stated I needed a hotel room--I was told "Sorry". After hours of toxic air, maintenance run ups, and fume event reports, I was not feeling sick and fatigued but Scheduling would not grant my request for a hotel. I called out fatigued. I contacted [medical] after I called out due my stomach issues.

Synopsis
Air Carrier Captain reported a fume event during gate preflight. After assisting maintenance with the engine run ups and maintenance checks which resulted in no improvements the flight was cancelled.
ACN: 1909487 (23 of 50)

Time / Day
- Date: 202206
- 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: B737-900
- Crew Size.Number Of Crew: 2
- Operating Under FAR Part: Part 121
- Flight Plan: IFR
- Mission: Passenger
- Flight Phase: Takeoff / Launch
- Route In Use: Vectors

Component
- Aircraft Component: Turbine Engine
- 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 Not Flying
- Qualification.Flight Crew: Air Transport Pilot (ATP)
- Qualification.Flight Crew: Instrument
- Qualification.Flight Crew: Multiengine
- Experience.Flight Crew.Last 90 Days: 229
- Experience.Flight Crew.Type: 435
- ASRS Report Number.Accession Number: 1909487
- Human Factors: Communication Breakdown
- Human Factors: Confusion
- Human Factors: Fatigue
- Human Factors: Situational Awareness
- Human Factors: Time Pressure
- Human Factors: Troubleshooting
Person : 2

Location Of Person.Aircraft : X
Location In Aircraft : Flight Deck
Reporter Organization : Air Carrier
Function.Flight Crew : Captain
Function.Flight Crew : Pilot Flying
Qualification.Flight Crew : Multiengine
Qualification.Flight Crew : Instrument
Qualification.Flight Crew : Air Transport Pilot (ATP)
Experience.Flight Crew.Total : 1812
Experience.Flight Crew.Last 90 Days : 229
Experience.Flight Crew.Type : 1812
ASRS Report Number.Accession Number : 1909498

Events

Anomaly.Aircraft Equipment Problem : Critical
Anomaly.Deviation / Discrepancy - Procedural : Clearance
Anomaly.Deviation / Discrepancy - Procedural : Published Material / Policy
Detector.Automation : Aircraft Other Automation
Detector.Person : Flight Crew
Were Passengers Involved In Event : N
When Detected : In-flight
Result.General : Flight Cancelled / Delayed
Result.General : Maintenance Action
Result.Flight Crew : Rejected Takeoff
Result.Flight Crew : Returned To Gate
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

It had been a long day for us. We extended our duty, multiple passenger issues (including a full deplane and reboard hrs later), 5 releases, an over fuel, multiple Flight Attendants timed out because of legality issues, performance issues due to wind and temps in ZZZ,
and multiple extensive ZZZ1 delays due to gate issues and WX. I have provided this information to give you a complete picture of our environment and mindset of that day. We were going to depart Runway XX in ZZZ. It was to be a bleeds off take off so the QRH was run. The takeoff roll was normal with thrust set and checked. The 100 knots call was made and then I noticed the EGT dial was full red. I brought it to the Captain's attention and he rejected. My best guess is that we were at 110 knots. The rejection was executed properly with all appropriate calls made. We ran the QRH and then QRH for the rejection and the exceedance. The trucks were also called. After consulting with [airport] response, the Flight Attendants, and the QRH, we determined it was safe to return to the gate. We parked at Gate X without further incident. I support my Captain's decision to reject because I feel it was truly in the interest of safety.

Narrative: 2

Departing ZZZ Runway XX. Bleeds off takeoff. Flaps 1. Approximately 163,000 pounds takeoff weight. Surface temps in ZZZ around 30C. Winds 120@10G20. Aircraft was properly configured. Bleeds Off Takeoff QRH was referenced by the FO (First Officer) and I double checked it. Takeoff thrust was 101.2% N1 I believe. Takeoff roll was normal - 100 knot call out was made. Just past the 100 knot call the FO called the Engine 2 Exceedance. Engine 2 EGT dial was completely RED which sits just below the N1 Dial. I made the decision to abort the takeoff at around 110 knots. Stopped halfway down the runway. Determined we could clear the runway and turned off at the High-Speed [Taxiway] 1. We asked for the ARFF (Airport Rescue and Firefighting) to be dispatched. They reported no damage, no brake fire. Completed the RTO (Rejected Takeoff) QRC/QRH. The Engine Limit or Surge or Stall QRH. Referenced the Brake Cooling Charts for a 900ER and determined we could taxi to the gate. Arrived at the gate with no further incident. I do understand that above 100 knots, we should reject for loss of directional control, Fire, Engine Failure, PWS (Predictive Wind Shear). However in the moment, with a relatively heavy airplane, max performance, and the long runway I believed at that time it was safer to stop the airplane. A different airport with a different set of conditions I am not certain I would have. Also seeing a completely red EGT gauge just below the N1 gauge does lead to a definite startle factor in what exactly I am I looking at. The fact that it was a long day which included defueling the airplane, about the start the push only to be told by Dispatch not to push because flights we are diverting out of ZZZ1. Deboarding, Customer Service issues, Multiple FAs (Flight Attendants) timing out, our own CCO (Critical Crew Offtime) issues which included extending our CCO time, reboarding, 5 Dispatch releases...Not 100% certain that is all relevant but maybe in my mind it was a factor in just saying maybe we should just call it and not take this plane airborne. I dunno. But at the end of the day we made that decision. Nothing was broke or bent, no one was hurt but it did give me a sleepless night and something to think about.

Synopsis

Flight Crew reported a rejected take off was caused by Engine #2 EGT exceedance and returned to the gate for maintenance action.
ACN: 1909015 (24 of 50)

Time / Day
Date: 202206
Local Time Of Day: 1201-1800

Place
Altitude.MSL.Single Value: 31000

Environment
Flight Conditions: VMC
Light: Daylight

Aircraft
Reference: X
Aircraft Operator: Air Carrier
Make Model Name: EMB ERJ 170/175 ER/LR
Crew Size.Number Of Crew: 2
Operating Under FAR Part: Part 121
Flight Plan: IFR
Mission: Passenger
Flight Phase: Cruise
Route In Use: Vectors

Component
Aircraft Component: Central Computer
Manufacturer: MAU2B
Aircraft Reference: X
Problem: Malfunctioning

Person
Location Of Person.Aircraft: X
Location In Aircraft: Flight Deck
Reporter Organization: Air Carrier
Function.Flight Crew: Pilot Flying
Function.Flight Crew: Captain
Qualification.Flight Crew: Air Transport Pilot (ATP)
Qualification.Flight Crew: Instrument
Qualification.Flight Crew: Multiengine
ASRS Report Number.Accession Number: 1909015
Human Factors: Communication Breakdown
Human Factors: Fatigue
Human Factors: Human-Machine Interface
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
Events

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

On flight from ZZZ1 to ZZZ, Aircraft X experienced an AVNX MAU (Master Avionics Unit) 2B failure approximately 250 miles from ZZZ. The aircraft was at FL310. Upon experiencing the failure, the Captain was the Pilot Flying and had me identify and cancel. I pulled out the QRH and went step by step through the procedure with the Captain. Upon completion of the checklist we determined that a [request for priority handling] was appropriate and to request Crash Fire Rescue. We notified dispatch, the Flight Attendants and the passengers of the situation. The failure of the MAU caused us to lose our inboard brakes, ground and terrain proximity warning and a number of other messages. Based on the loss of our inboard brakes and with an increased runway requirement we would need CFR on site. We also selected Runway XXR as winds were favorable and it was 10,006 ft. runway. This was adequate based on the QRH number assessment for landing. We ran the Landing Gear/ Brake Malfunction descent and landing checklist in accordance with the QRH. Upon landing we experienced decreased braking capability but sufficient enough to safely stop. While stopping I also had up the system page to additionally monitor brake temps. We safely landed without any deviations or damage. After clearing the runway, we were asked by ATC to quickly taxi across XXL. I told them we were unable and reminded the controller that we had to brakes that failed. I personally was not happy that the Controller lost situational awareness and asked us to do something that was potentially unsafe. He acknowledged and we waited for to clear XXL. Upon taxiing into the gate the aircraft got the Brake Overheat message. We once again identified and canceled and I read the QRH and we executed it. The Captain stopped the aircraft and we determined the best course of action was to have the aircraft tugged to the gate. We had Crash Fire Rescue Equipment inspect us multiple times upon landing to ensure there was no threat to our passengers or crews from the hot brakes. We subsequently were tugged into the gate and waited for maintenance to respond. Upon arrival to the gate, Maintenance wanted to have the aircraft shutdown and brought back on line to see if the fault would clear. At this point, I was frustrated and felt like a better assessment of the reliability of our systems needed to occur after the failure in flight. We already had MEL XX-XX-XX-X for the FADEC (Full Authority Digital Electronic Control) that required an alternate ignition operations procedure on it. In response to this, I could tell that stress had set in and I made the
decision not to continue flying for the rest of the day. After flying in the military for XX years, I call it the rule of three. When three things happen bad in the aircraft.... It's time for me to do a personal assessment of where I am at IAW (in accordance with) the personal assessment checklist. I also started to talk myself into continuing for the day which is a dangerous attitude to have. Upon recognizing that the event caused more stress than everyday operation, I informed the Duty Pilot and scheduling that I was not going to continue. I also talked to the Chief Pilot. I am glad I did this. Looking back at yesterdays events, we had a lot of additional complexities that we do not encounter on a normal day. These system failures were not our fault, but the QRH was well written enough to get us safely on the ground. We had good CRM throughout the [incidents]. I think our crew did a phenomenal job identifying and mitigating threats both in and after the flight, and that is why I am sharing this. I am also happy that there were both union and company personnel who supported my decision based on my self assessment. This is a positive cultural aspect that I would like to highlight. [I would suggest to] continue to train emergency and QRH usage. Continue to ask crews to do self assessments... we are not all built the same way. Learn from these failures and validate QRH procedures.

Synopsis

EMB ERJ 170/175 First Officer reported the failure of MAU 2B in cruise. The flight crew made an air turn back and precautionary landing at destination airport and the aircraft was towed to the gate.
ACN: 1907448  (25 of 50)

Time / Day
Date : 202206

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

Aircraft
Reference : X
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

Person
Location Of Person.Aircraft : X
Location In Aircraft : Flight Deck
Reporter Organization : Air Carrier
Function.Flight Crew : Captain
Qualification.Flight Crew : Multiengine
Qualification.Flight Crew : Air Transport Pilot (ATP)
Qualification.Flight Crew : Instrument
Experience.Flight Crew.Total : 2545
Experience.Flight Crew.Last 90 Days : 189
Experience.Flight Crew.Type : 2545
ASRS Report Number.Accession Number : 1907448
Human Factors : Communication Breakdown
Human Factors : Confusion
Human Factors : Distraction
Human Factors : Situational Awareness
Human Factors : Training / Qualification
Human Factors : Troubleshooting
Human Factors : Workload
Human Factors : Fatigue
Communication Breakdown.Party1 : Flight Crew
Communication Breakdown.Party2 : Flight Crew

Events
Anomaly.Deviation / Discrepancy - Procedural : Published Material / Policy
Anomaly.No Specific Anomaly Occurred : Unwanted Situation
Detector.Person : Flight Crew
When Detected : Taxi
Result.General : Flight Cancelled / Delayed
Result.Flight Crew : Became Reoriented
Assessments
Contributing Factors / Situations : Company Policy
Contributing Factors / Situations : Environment - Non Weather Related
Contributing Factors / Situations : Human Factors
Contributing Factors / Situations : Procedure
Primary Problem : Company Policy

Narrative: 1

I was the Captain on Flight XXX ZZZ-ZZZ1 performing Line Check Airmen (LCA) duties with a new hire on date. This was an all-night flight which was leg five and a third duty period for the new hire. My new hire was Military background and had completed his OE early this year and basically sat for four months. He had been back for a three-day sim recently. He has a great attitude and is eager to learn, however the first few legs he was challenged with a lack of -121 experience and what I believe was a degradation or loss of good habit patterns from the sim phase. Leg three on day two was a short, challenging flight from ZZZ2-ZZZ3. He was stressed and challenged making many mistakes, but ultimately I could see improvement, despite being overwhelmed with the pace of our operations. Leg four was a long leg from ZZZ3-ZZZ that same day, and showed significant improvement. The approach and landing were approaching "line standard" and I was hopeful if not confident that we had gotten over the "hump". We had a long layover to ready for the all night flight back to ZZZ1. I had stated that typically, it’s much easier to fly from ZZZ to ZZZ1, so we could have a good flight and finish required briefings. The day before Flight XXX I had two periods with naps, early afternoon and then again in the evening before report time. My student reported that he had napped, but said he wish he had drank more coffee when we were in the cockpit. When I awoke an hour prior to report, the operations flight plan was not present, so I readied myself to the duty day. In the 10-15 minutes prior to leaving the room there was still no operations flight plan, but I had checked the weather along the tracks as well as ZZZ1 (all good, and VFR). The hotel van was late by almost 10 minutes. We arrived to chaos at the gate area. ZZZ station was buying seven passengers off the full flight. I pulled up the operations flight plan and immediately called Dispatch to remove fuel and get the latest ZZZ4. I then directed my First Officer (FO) to the cockpit to get ready for the flight, telling him that he was responsible for the FMC and that I would do the exterior walk around to give him additional time. Dispatch, Station and Flight Attendant conversations dominated the next several minutes and I arrived at the cockpit from the walk around approx. 25 min prior to pushback. He had most of the programming done and it was all accurate. He had been slow but usually pretty accurate in previous flights. We discussed the upcoming flap 25, Bleeds Off take-off and I had him pull up the supplemental procedure and review it. We were able to get all the passengers on, and we briefed and did the preflight checklist. I had briefed that we would push back, start both engines and run the before takeoff checklist to completion before taxi. Additionally, he had briefed a flap 25 bleeds off, and we analyzed the data and discussed the winds (080/10) and temp (23C) as these were critical to taking the planned weight. The door closed and we worked a clearance with ZZZ5. My FO was seemingly having issues with radio calls, attempting to take calls for other aircraft. So I slowed him down and we received our clearance and expected altitude. Then we pushed back and I directed him to start both engines as briefed. The preflight had been hectic, with me being pulled in many directions. I had shielded him from as much of that as possible, by having him simply work on his cockpit set up. I am very aware that my error signature is when I am rushed, I make mistakes. As such, when the brakes are released, I stop rushing and slow down. I briefed my student the same thing and I make sure to slow my speech pattern and checklist response time. That is not unique to this day, it’s every time. I had briefed him that we were going to take our time and we were
not rushed. I have no memory or perception for us rushing after push this night. After the number two engine was started, he was sitting there, and I saw the packs were off. This was a common error he had had in previous legs, so I pointed to the packs. The pushback crew was at my ten o'clock position and I looked back at them. Then I glanced in and saw that the number one engine wasn't started and I verbalized "Start Number One". He responded, "Oh you want me to start Number One? OK." I then turn my attention back to the crew as it was time for the salute. I look back in and the engine is at max motoring, at approx. 34 percent N2 with the Fuel Control Switch still in Cutoff. My FO mumbled something about 30 percent which I didn't hear. I asked him to repeat it and he did. It was something about a "limit", so I asked again and got a reply I didn't understand, so I slowed down again and said, "I do not understand what you are telling me". He was confused, and it turns out that he was mixing up previous airplane's limits. I prompted him to start the engine. We ran through the After Start Checklist with no issues that I'm aware of. No without moving the aircraft we began the before take-off checklist. The first step is "Final Weights" from the ACARS printout. The number he read made no sense. I was thinking about it as he went on, trying to understand when he backed up and corrected himself to a number that made more sense. I'm assuming a transpose error. Then he went on to the takeoff weights/speeds and really had troubles. He was going back and forth from the takeoff data message to the FMC. I stopped him, and we talked about him analyzing the data, and checking it with the FMC prior to the checklist initiation. He understood, and I stopped the before takeoff checklist and we started again from the beginning. I remember the first two steps clearly. I remember the trim step clearly. I remember the FMC step clearly as we had discussed the routing that was absent a SID. In the later moments and the hours since I have no memory of mention of flaps. We taxied to the runway, ensured the bleed panel was correctly configured including techniques, got the release from ZZZ5 and took the runway. As we were taking the runway, I was going to go over the flap 25 takeoff again and talk rotation rates and pitches and as I said, "OK...a Flaps 25 takeoff..." and as I glanced at the gauge, the flaps were set to flaps 5. He reselected flaps 25, stating "You probably said 25..." We then stopped on the runway and accomplished the before takeoff check in its entirety. I know the "whys". I don't know the "how" and it'll be a while to cement the "what am I going to do next". He's new, with no airline background. He sat for four months. In my opinion he's lost habit patterns and confidence. There were operational pressures out of the station, along with numerous distractions. I knew and briefed that we were rushed and that we would take a moment. We did. I slowed things down. We both had stated that we napped, but it was late; XAAM for him, XBAM for me. The single most disturbing thing I'm wrestling with it for 20+ years in the B737, I've been very careful with flaps. From day one in the left seat when we get to the step, I pause (so that I can clear any taxi conflicts and go heads down) point to the FOs Take-off Page in the FMC, then point to the flap gage. Then I reach over and wiggle the flap handle in the detent. I couldn't in the moment, nor can I understand how I would have missed the step in the checklist or worse, how I could have possible stated "25 indicated" without a visual conformation and a tactile one. And I have no memory of any part of that step. My best guess, which considering my actions that day are suspect, is that he became increasingly overwhelmed and as his errors started occurring, he didn't have the habit patterns or muscle memory or experience to dig himself out. He's new. He sat an unconscionable amount of time and is trying as hard has he can. But he told me that night, "Chair flying can only go so far" and he's right. He can't possibly recreate the distractions and unanticipated threats. I knew he was overwhelmed, he had been the whole trip, but the previous leg was so much better, maybe I have a bias that he was "over the hump". During engine start, I knew he was making errors, but I thought I was slowing down and trying to create an environment where he could catch himself up. And ultimately, I blame myself. Because in trying to be an above average instructor, I became a very substandard Captain. In discussing this with my best friend from military instructing
days, himself a Captain at another carrier, we tried to find a "what will we do next". He suggested that I make a rule that when errors start piling up, stop instructing and just be a Captain. I liked it and vowed to add that to my personal checklist until I woke up this morning with the realization that had I done that, and not started to instruct him on the mechanics of the flaps 25 takeoff, I might not have glanced at the gauge. I might not have caught it. So I'm back to square one.

Synopsis

B737 Captain reported as they taxied onto the runway for departure the Captain noticed the First Officer set the flaps to the wrong position and a complete Before Take Off briefing had not been accomplished. The Captain reported the First Officer made many mistakes and lacked proficiency due to being a new student who had not flown for a long period of time.
**ACN: 1907134** (26 of 50)

**Time / Day**
- Date: 202206
- Local Time Of Day: 1201-1800

**Place**
- Locale Reference.Airport: ZZZ.Airport
- State Reference: US

**Aircraft**
- Reference: X
- ATC / Advisory.Tower: 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: Takeoff / Launch
- Airspace.Class B: ZZZ

**Component**
- Aircraft Component: Turbine Engine
- Aircraft Reference: X
- Problem: Malfunctioning

**Person**
- Location Of Person.Aircraft: X
- Location In Aircraft: Flight Deck
- Reporter Organization: Air Carrier
- Function.Flight Crew: Captain
- Function.Flight Crew: Pilot Flying
- Qualification.Flight Crew: Air Transport Pilot (ATP)
- Qualification.Flight Crew: Instrument
- Qualification.Flight Crew: Multiengine
- ASRS Report Number.Accession Number: 1907134
- Human Factors: Workload
- Human Factors: Fatigue

**Events**
- Anomaly.Aircraft Equipment Problem: Less Severe
- Detector.Person: Flight Crew
- When Detected: In-flight
- Result.Flight Crew: Landed As Precaution
- Result.Flight Crew: Overcame Equipment Problem
- Result.Flight Crew: Returned To Departure Airport
- Result.Flight Crew: Requested ATC Assistance / Clarification
- Result.Air Traffic Control: Issued New Clearance

**Assessments**
Contributing Factors / Situations : Aircraft
Primary Problem : Aircraft

**Narrative: 1**

After takeoff at approximately 600 AGL number 2 engine exhaust gas temperature rose to over 700 degrees. After thrust reduction, temp went to between 605 and 620. ECAM number 2 Engine over temp flashed while temp varied. As we climbed, temp decreased, we as a crew decided not to shut down engine since temp was slowly decreasing. Although we did decide to return to ZZZ overweight in concurrence with Dispatch. Followed QRH for overweight landing and non-normal landing procedures. Landed without further incident. I was on 10 days of flying without ability to go home, received my break at hotel. Had somewhat good sleep, but was getting quite burned out from being gone for so long. Became a little overwhelmed once ECAM started flashing to shut engine down. Communicated to First Officer I was no longer in the green and he assured me he was in the green. Once we decided to return to ZZZ and followed all QRH procedures I returned to the green and felt less stressed and communicated to my First Officer. Landed without incident.

**Synopsis**

A321 Captain reported returning to departure airport after the #2 engine overheated in initial climb.
Time / Day
Date: 202205
Local Time Of Day: 1801-2400

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

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
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
Mission: Passenger
Flight Phase: Taxi

Person: 1
Location Of Person.Aircraft: X
Location In Aircraft: Flight Deck
Function.Flight Crew: Pilot Flying
Function.Flight Crew: Check Pilot
Qualification.Flight Crew: Instrument
Qualification.Flight Crew: Multiengine
Qualification.Flight Crew: Air Transport Pilot (ATP)
ASRS Report Number.Accession Number: 1903368
Human Factors: Distraction
Human Factors: Fatigue
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 : Multiengine
Qualification.Flight Crew : Instrument
Qualification.Flight Crew : Air Transport Pilot (ATP)
ASRS Report Number.Accession Number : 1903382
Human Factors : Workload
Human Factors : Situational Awareness
Human Factors : Distraction
Human Factors : Confusion
Human Factors : Communication Breakdown
Human Factors : Fatigue
Communication Breakdown.Party1 : ATC
Communication Breakdown.Party2 : Flight Crew

Events
Anomaly.Conflict : Ground Conflict, Critical
Detector.Person : Flight Crew
When Detected : Taxi
Result.Flight Crew : Took Evasive Action

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

Narrative: 1

We landed on XR and exited at XX. Instructed to join X and hold short of XL. Instructed First Officer (FO) to remain on Tower frequency until we were clear of all active runways. We were then cleared to cross XL, to join Y, "keep it moving" and to monitor ground on XXX.X. The FO assisted me in finding the turn onto Y and then checked off VHF #1 to call ramp. I was concentrating on a short distance in front of the airplane in anticipation of the left turn where Y meets XY. As I entered the turn I noticed a light gray object in the darkness above my point of focus. I quickly realized my entire windshield was filled with the image of a company Aircraft Y crossing in front of us from right to left. I applied the brakes and watched as the other airplane cleared our nose by a short distance. We did not receive any advisory about the conflicting traffic nor were we given any "give way" instructions. Nor did we hear any other airplane receive any such communications.

Contributing factors in this incident include fatigue. We were at the end of a duty day that exceeded 11 hours and nearly 8 hours of flying. Also, the late hour (approximately XA:30 local) contributed to a lower level of alertness. Darkness. The incident occurred during hours of darkness and in an area of the airport that is not particularly well illuminated.

Taxiway Geometry: The geometry of the intersection of Y and XY is such that the view of Taxiway XY from an airplane on Y is to the right side and not clearly visible. Experience level. The FO is a new hire pilot on his second OE trip. He has no prior 121 experience and this was his first entry into ZZZ. Ideally a real time ground aircraft display on the flight deck would have prevented this incident.
Narrative: 2

Our Aircraft X landed on Runway XR and cleared the runway. Tower instructed us to hold short XL on Taxiway X and we complied. We were then instructed to cross Runway XL and to join Taxiway Y and monitor ground. After clearing XL on Taxiway X we configured exterior lighting, looked both ways and stated "cleared left / right" then proceeded to join Taxiway Y. The Captain instructed me to call Ramp and he would monitor Ground. As soon as I put my head down to call Ramp, the Captain stopped the aircraft as a company Aircraft Y was overtaking us on the right from Taxiway XY onto Taxiway Y. I did not see this aircraft when stating "cleared right" after clearing Runway XL on Taxiway X as we joined Taxiway Y per the controller's direction. The aircraft overtaking us from Taxiway XY onto Taxiway Y did not slow or give way despite our aircraft being established on Taxiway Y. Neither the Captain nor myself heard the controller tell us or the other aircraft to give way to one another. Airport Design. Taxiway Y flow is counter clockwise. The threats from merging taxiway traffic on the right side of the aircraft are difficult to detect as the view of the starboard merging taxiways are constantly shifting aft and right which becomes out of view for the right seat occupant. Low Light: The event occurred at night which limited the ability to detect other aircraft when combined with airport lighting. Experience Level: This was the second OE event for the First Officer with no prior 121 experience and his first event at ZZZ. Fatigue: Long duty day and nearly 8 hours of flying coupled with a local time of ~XA:30. The Ground Controller could have notified either aircraft to give way to the other aircraft and verified the command with a positive response. Neither occupant in our aircraft heard the controller give such instructions to either aircraft.

Synopsis

Air carrier flight crew reported the Captain had to suddenly brake to avoid another taxiing aircraft which passed in front of them.
Time / Day
Date : 202205
Local Time Of Day : 0601-1200

Place
Locale Reference.Airport : LGA.Airport
State Reference : NY
Altitude.AGL.Single Value : 0

Aircraft
Reference : X
Aircraft Operator : Air Carrier
Make Model Name : Light Transport, Low Wing, 2 Turbojet Eng
Crew Size.Number Of Crew : 2
Operating Under FAR Part : Part 121
Mission : Passenger
Flight Phase : Taxi

Person
Location Of Person.Aircraft : X
Location In Aircraft : Flight Deck
Reporter Organization : Air Carrier
Function.Air Traffic Control : Ground
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 : 1903211
Human Factors : Situational Awareness
Human Factors : Fatigue
Human Factors : Communication Breakdown
Communication Breakdown.Party1 : ATC
Communication Breakdown.Party2 : Ground Personnel

Events
Anomaly.Aircraft Equipment Problem : Less Severe
Anomaly.Conflict : Ground Conflict, Critical
Anomaly.Deviation / Discrepancy - Procedural : Published Material / Policy
Anomaly.Ground Event / Encounter : Other / Unknown
Detector.Person : Flight Crew
Were Passengers Involved In Event : N
When Detected : Aircraft In Service At Gate
Result.General : Flight Cancelled / Delayed
Result.Flight Crew : Returned To Gate

Assessments
Contributing Factors / Situations : Company Policy
Contributing Factors / Situations : Equipment / Tooling
Contributing Factors / Situations: Human Factors
Contributing Factors / Situations: Procedure
Primary Problem: Ambiguous

**Narrative: 1**

During pushback the tug driver pushed our aircraft extremely close to other aircraft parked at neighboring gates. We were cleared to pushback to spot XX. During the pushback I (FO) was watching the right wing walker, and he was giving a wand up the whole time we were moving. After we pushed back and we started to move forward, the tow pulled us forward I was watching the wing to make sure we were clear of a fuel truck. As I turned my head forward I mentioned to the Captain that the nose was very close to the tail of a parked plane. He said that sometimes parking is tight and did not appear concerned. As we made the left turn, I kept my eye on the right wing walker and he continued to give a thumbs up as we continued the turn. I told Captain again that we were pretty close, but still had a thumbs up. As the tug driver turned hard to move us away from the parked airplane, the tow bar snapped. The tug driver stopped the tug and the ground crew came to assist him. We set the parking brake and the Captain called ops about the tow bar and having maintenance meet us to inspect the wheel. Shortly thereafter, I assume ground crew supervisors were called and started to gather around tug and the right wing. After about 15 minutes, We were given clearance to be towed back to the gate for maintenance to check things out. When the maintenance person boarded, she said we had had a near miss with the parked aircraft. I know it may be experienced based, but it is difficult to tell how close we actually were to the aircraft. Also, we were operating on min rest and had had a max crew day the day before.

**Synopsis**

First Officer reported a near impact with an adjacent aircraft during pushback after the tug’s tow bar snapped.
Time / Day
Date: 202205

Aircraft
Reference: X
Aircraft Operator: Air Carrier
Make Model Name: Medium Transport, Low Wing, 2 Turbojet Eng
Crew Size: Number Of Crew: 2
Operating Under FAR Part: Part 121
Flight Plan: IFR
Mission: Passenger
Nav In Use: GPS
Nav In Use: FMS Or FMC

Person
Location Of Person.Aircraft: X
Location In Aircraft: Flight Deck
Reporter Organization: Air Carrier
Function: Flight Crew: Captain
Qualification: Flight Crew: Multiengine
Qualification: Flight Crew: Air Transport Pilot (ATP)
Qualification: Flight Crew: Instrument
ASRS Report Number: Accession Number: 1901910
Human Factors: Communication Breakdown
Human Factors: Fatigue
Human Factors: Human-Machine Interface
Human Factors: Physiological - Other
Human Factors: Situational Awareness
Human Factors: Troubleshooting
Human Factors: Distraction
Communication Breakdown: Party1: Flight Crew
Communication Breakdown: Party2: Other

Events
Anomaly: No Specific Anomaly Occurred: Unwanted Situation
Detector: Person: Flight Crew
Were Passengers Involved In Event: N
When Detected: In-flight
When Detected: Pre-flight
When Detected: Taxi
Result: Flight Crew: Took Evasive Action

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

Narrative: 1
I'm involuntarily TDY'd to ZZZ, and had been on duty for 2 days at the time of the event. I have been commuting to ZZZ for [8 hour] airport standby (ready Reserve) for 17 days in
the last 30 days, and I have been to my home for 2 days the entire month due to TDY. The night of the Date I was unable to get sufficient sleep, because my significant other (herein refereed to as SO). has been looking at houses with me over facetime and we have conflicting schedules. On the [following day] I was on airport standby with no calls for 8 hours. I was assigned a flight to ZZZ1 that was scheduled to depart 30 minutes after my shift ended. The flight landed and we got to the hotel by XA:00. I then had to find suitable dining accommodations. I was able to get to sleep by XS:00 for a XA:20 van after looking at homes with my SO whom I have barely seen for the last month. During flight, I began to notice error compiling due to fatigue. I immediately alerted the First Officer to my increasing levels of fatigue and asked him to keep a high level of vigilance as I began to feel I was making mistakes, and missing radio calls. As we were descending through 12,000 ft. back into ZZZ I realized we had also forgot to set local altimeter setting. We landed with no further incident. However as we arrived at the gate I have been assigned an additional 6 hours of flying to ZZZ2 and back. It was at this point I decided to remove myself from flying duties. We often hear about the "swiss cheese model" In aviation, where it is not just one issue that causes incidents in flight, however it is often multiple issues that overlap and fatigue is almost ALWAYS a major contributing factor. In this case, I was beginning to see the holes in our hypothetical model line up. Flying around 79 other people, there are no excuses for poor performance. I do not want fatigue hindering from performing not only my duty to the passengers and company, but preventing me from safely operating the aircraft is unacceptable. The root cause is accumulated fatigue due to poor staffing, forcing me to two-leg commute to an unintended, and unwanted base whilst also being asked to live out of a hotel room for 30 days. On standby I’ve had a constantly changing schedule that could be remedied with better staffing. After working a full day of standby being asked to work a flight thats 30 minutes after my shift ends for a short overnight, then having a flight day of 7.5 hours of flying is unrealistic.

Synopsis

Air carrier Captain reported extreme fatigue due to the companies scheduling and personal activities. The Captain called in fatigued to the company and was removed from flying duties.
**ACN: 1900157** (30 of 50)

**Time / Day**
- Date: 202205
- Local Time Of Day: 1801-2400

**Place**
- Locale Reference
- ATC Facility: ZZZ.TRACON
- State Reference: US

**Aircraft**
- Reference: X
- ATC / Advisory: Tower: ZZZ
- Aircraft Operator: Air Carrier
- Make Model Name: EMB ERJ 170/175 ER/LR
- Crew Size: Number Of Crew: 2
- Operating Under FAR Part: Part 121
- Flight Plan: IFR
- Mission: Passenger
- Nav In Use: FMS Or FMC
- Nav In Use: GPS
- Nav In Use: Localizer/Glideslope/ILS: ILS Cat 2
- Flight Phase: Initial Approach
- Route In Use: Direct
- Airspace: Class B: 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: Instrument
- Qualification: Flight Crew: Multiengine
- ASRS Report Number: Accession Number: 1900157
- Human Factors: Fatigue
- Human Factors: Physiological - Other
- Human Factors: Time Pressure
- Human Factors: Workload
- Human Factors: Communication Breakdown
  - Communication Breakdown: Party1: Flight Crew
- Communication Breakdown: Party2: Flight Crew

**Person: 2**
- Location Of Person: Aircraft: X
- Location In Aircraft: Flight Deck
- Reporter Organization: Air Carrier
- Function: Flight Crew: Pilot Not Flying
- Function: Flight Crew: Captain
- Qualification: Flight Crew: Multiengine
Qualification.Flight Crew : Instrument
Qualification.Flight Crew : Air Transport Pilot (ATP)
ASRS Report Number.Accession Number : 1900245
Human Factors : Workload
Human Factors : Time Pressure
Human Factors : Other / Unknown
Human Factors : Fatigue
Human Factors : Communication Breakdown
Human Factors : Physiological - Other
Communication Breakdown.Party1 : Flight Crew
Communication Breakdown.Party2 : Flight Crew

Events
Anomaly.Deviation / Discrepancy - Procedural : Published Material / Policy
Anomaly.Deviation / Discrepancy - Procedural : FAR
Detector.Person : Flight Crew
Were Passengers Involved In Event : N
Result.General : None Reported / Taken

Assessments
Contributing Factors / Situations : Airport
Contributing Factors / Situations : Chart Or Publication
Contributing Factors / Situations : Environment - Non Weather Related
Contributing Factors / Situations : Human Factors
Primary Problem : Human Factors

Narrative: 1
While working Aircraft X ZZZ1 to ZZZ, we conducted a CAT II approach to [Runway] XXR in ZZZ and failed to realize that runway is not AMOC (Alternate Methods of Compliance) approved. There is a 5G NOTAM for ZZZ. Initially, we briefed and set up for ILS CAT I for Runway XXR. I was Pilot Flying. Upon check in with ZZZ Approach, we were assigned ILS XXL. We set up and briefed the approach for the ILS CAT I XXL. Upon check in with ZZZ Tower, we were told RVR was 5,000 [ft.] touchdown and greater than 6,000 rollout. However we did not have any runway environment in sight at minimums. We conducted a Go-Around. Upon checking in again with ZZZ Approach, we were now assigned ILS XXR. The Captain and I discussed our current fuel and determined we were well above Bingo and good for another approach. We then discussed doing a CAT II considering that we could not get the airport environment in sight at CAT I mins. We agreed that a CAT II sounded like a good idea and there was a CAT II approach for XXR. We sent for appropriate landing data but failed to notice the ACARS message about the runway AMOC status. Also, we had briefed the Release prior to the flight but failed to remember which runways were AMOC approved. We did run the "CAT II APPROACH" briefing items but the bullet point "Review NOTAMs for inoperative ground components" also failed to prompt me to remember the 5G NOTAM. We conducted the CAT II approach to Runway XXR and landed. There were no radio altimeter anomalies. The Captain had the runway environment in sight at 200 feet indicated. The approach and landing were stabilized and uneventful. This error was caused by my failure to verify the AMOC/5G status of the runways at ZZZ on the release and failure to notice the AMOC ACARS message. Contributing factors were the high workload experienced throughout the day which included delays, a return to gate, and a missed approach. In retrospect, I recognize the effects that a long and challenging day can have on state of mind and attentiveness to small details such as reviewing NOTAMs and AMOC status. The addition of 5G procedures
in recent months presents another threat and opportunity to commit errors. To prevent this error in the future, I will include a review of the Remarks in addition to the NOTAMs section of the release in my preparation for a CAT II or RNP AR approach. I would also recommend the company add a bullet point to the company document CAT II and RNP AR approaches: "verify runway is AMOC approved or that no 5G NOTAM [exists] for the airport." I would recommend a new revision of the company document that adds a bullet point to the CAT II and RNP AR approach sections saying: "Verify runway is AMOC approved or that no 5G NOTAM exists for the airport/Runway." I will also more carefully review the remarks and NOTAMs section of the release during my preparation for a CAT II or RNP approach.

**Narrative: 2**

WX reporting minimums for CAT I at ZZZ. Issued [Runway] XXL ILS approach, ending with a go around due to no visual cues for the runway. ATC brought us around for XXR and we discussed to do a CAT II. Shot the CAT II seeing the runway lights at 200 ft. Issued standard SOP CAT II procedure; although the following day the First Officer brought to my attention ZZZ was not 5G AMOC (Alternate Method of Compliance) approved. In the moment, ending the day with 15 hour duty, with 8.9 hours of flight time, it didn't even cross my mind. Add a bullet point to the company document to check for 5G AMOC

**Synopsis**

Air carrier flight crew reported conducting a Category II approach to a runway that was not 5G AMOC approved. The pilots reported fatigue as a probable cause for the error.
<table>
<thead>
<tr>
<th><strong>ACN:</strong> 1895846 (31 of 50)</th>
</tr>
</thead>
</table>

**Time / Day**
- Date: 202204
- Local Time Of Day: 1201-1800

**Place**
- Locale Reference: Airport: ZZZ.Airport
- State Reference: US

**Environment**
- Flight Conditions: VMC
- Light: Daylight

**Aircraft**
- Reference: X
- ATC / Advisory: Tower: ZZZ
- Aircraft Operator: Air Carrier
- Make Model Name: Regional Jet 900 (CRJ900)
- Crew Size: Number Of Crew: 2
- Operating Under FAR Part: Part 121
- Flight Plan: IFR
- Mission: Passenger
- Nav In Use: FMS Or FMC
- Flight Phase: Initial Approach
- Route In Use: Visual Approach
- Airspace: Class B: ZZZ

**Component**
- Aircraft Component: Electronic Flt Bag (EFB)
- Aircraft Reference: X
- Problem: Malfunctioning

**Person**
- 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: Multiflomentum
- ASRS Report Number: Accession Number: 1895846
- Human Factors: Communication Breakdown
- Human Factors: Distraction
- Human Factors: Fatigue
- Human Factors: Human-Machine Interface
- Human Factors: Situational Awareness
- Human Factors: Time Pressure
- Human Factors: Workload
- Human Factors: Confusion
Communication Breakdown.Party1 : Flight Crew
Communication Breakdown.Party2 : Flight Crew

Events
Anomaly.Aircraft Equipment Problem : Less Severe
Anomaly.Flight Deck / Cabin / Aircraft Event : Other / Unknown
Anomaly.Deviation / Discrepancy - Procedural : Published Material / Policy
Detector.Automation : Aircraft Other Automation
Detector.Person : Flight Crew
Were Passengers Involved In Event : N
When Detected : In-flight
Result.Flight Crew : Became Reoriented
Result.Flight Crew : FLC complied w / Automation / Advisory

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

Narrative: 1
On approach to landing, pilot flying called for gear down. I hit chime and inadvertently selected flaps 30 and read off flaps 30 straight-in speed. Pilot flying then called for flaps 30 and I noted we were flaps 30 and again straight-in speed. We both expressed confusion as why I had already input flaps 30. Then, Captain called for "check spoilers, flaps 45, before landing check." I checked spoilers 0, flaps 45, straight-in speed, and went to read the checklist and [my EFB] crashed. I attempted to restart and then did checklist from memory because it was taking a long [time] to reload. I correctly called the checklist, but we did not identify that the gear was still up. The gear warning subsequently sounded. We corrected and landed. This happened at the final approach fix, although we were visual. Possible causes could be my lack of good rest for the entire trip. Day 1 was extended and we received less than 12 hours between airport to airport. Day 2 was minimum rest airport to airport. Day 3 ended with adequate rest opportunity but I didn't sleep well due to getting up at XA:00. Also, this was the first trip I was using [the EFB software] for checklists and it hung multiple times when attempting to use the checklist. This caused more rushing and distraction when checklists were called for and being read. I was expecting gear down callout and ready for it. Possibly unrecognized fatigue caused me to go for the wrong control. Resting better would have helped avoid this event. I will no longer use [the EFB software] for checklists until it is more stable. We could have gone around, but there is some ambiguity in the decision process for going around. We recognized the error and corrected, returning to stable approach before 1,000 ft. HAT on a visual approach.

Synopsis
CRJ900 First Officer reported incorrectly extending flaps instead of the landing gear as well as encountering issues with the EFB software making checklist usage difficult. Corrections were made to the aircraft’s configuration prior to 1,000 ft. and a normal landing was completed.
Time / Day

Date : 202204
Local Time Of Day : 1801-2400

Place

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

Environment

Light : Night

Aircraft

Reference : X
ATC / Advisory.Tower : ZZZ
Aircraft Operator : Air Carrier
Make Model Name : B737 MAX 9
Crew Size.Number Of Crew : 2
Operating Under FAR Part : Part 121
Flight Plan : IFR
Mission : Passenger
Flight Phase : Landing
Airspace.Class C : ZZZ

Person : 1

Location Of Person.Aircraft : X
Location In Aircraft : Flight Deck
Reporter Organization : Air Carrier
Function.Flight Crew : Pilot Not Flying
Function.Flight Crew : First Officer
Qualification.Flight Crew : Multiengine
Qualification.Flight Crew : Air Transport Pilot (ATP)
Qualification.Flight Crew : Instrument
ASRS Report Number.Accession Number : 1893402
Human Factors : Training / Qualification
Human Factors : Fatigue

Person : 2

Location Of Person.Aircraft : X
Location In Aircraft : Flight Deck
Reporter Organization : Air Carrier
Function.Flight Crew : Pilot Flying
Function.Flight Crew : Captain
Qualification.Flight Crew : Multiengine
Qualification.Flight Crew : Instrument
Qualification.Flight Crew : Air Transport Pilot (ATP)
ASRS Report Number.Accession Number : 1894026
Human Factors : Fatigue
Human Factors : Training / Qualification
Events
Anomaly.Deviation / Discrepancy - Procedural : Published Material / Policy
Anomaly.Inflight Event / Encounter : Unstabilized Approach

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

Narrative: 1
Landing in ZZZ and we may have floated past the touchdown zone. It was in a MAX which I'm still relatively new to. I think I was a little behind in noticing how far we had floated. Likely some complacency with landing on XXR in ZZZ, as it's such a frequent approach for us. It was also a bit of a long day having coming up from ZZZ1 and we were close to 9 hours of block time.

Narrative: 2
Landing in ZZZ in the max which I have only flown a couple times previously I floated in my flare slightly longer than intended to avoid a hard landing at night in a less familiar sight picture. I may have landed slightly past the touchdown zone. Trusting my hud information and flight instruments and avoiding different control inputs based on different aircraft models, instead keeping steady back pressure and looking farther down the runway on flare.

Synopsis
B737 MAX 9 flight crew reported being new to this generation aircraft type resulted in landing past touchdown zone.
On a night FMS bridge visual to Runway 28R to SFO, we got significantly low on the glide path and had a glide-slope warning. I was the Pilot Monitoring (PM) and the FO was the Pilot Flying (PF). I thought we were in LNAV VNAV, on the approach profile with the ILS
frequency also plugged in. I'm thinking we maybe we were in level change based on how low we got. The PF did not disengage the autopilot until we realized we were significantly low. How low I'm not sure, but the PAPI/VASI was showing 4 red when I snapped my attention to the situation. The VSD also showed us significantly low. As soon as I looked out front, I said to the PF to "get two white lights on the PAPI". He leveled off and added power. I thought of taking the aircraft but he was making excellent corrections. A go-around could have been warranted but we elected to land as we intercepted the glide path. I'm glad I had the VSD up, but I did not use it early enough as the PM to avoid this situation. Causal factors: Fatigue, we were rested but it had been a long 5 hours since [departure]. Complacency, it was perfect weather and both thought LNAV VNAV was a great plan to have some guidance, then followed the flight director too low in altitude. Experience, the PF was highly experienced in the Aircraft X and I was somewhat inattentive or complacent as the PM. I assumed all was good. Distraction, I did not have my head fully in the cockpit prior to our first indication of an issue. This was 100% human factors. I don't think we got ourselves close to an incident but getting low is a never good on an approach. Ultimately, I failed to monitor the flight path and we ended up in an undesirable aircraft state.

**Synopsis**

Air carrier Captain reported descending below glide path on a visual approach to SFO when situational awareness was lost.
ACN: 1885585 (34 of 50)

Time / Day
Date: 202202
Local Time Of Day: 1801-2400

Place
Locale Reference.Airport: ZZZZ.Airport
State Reference: FO
Altitude.AGL.Single Value: 0

Environment
Weather Elements / Visibility: Snow
Light: Night

Aircraft
Reference: X
ATC / Advisory.TRACON: ZZZZ
Aircraft Operator: Air Carrier
Make Model Name: Airbus Industrie Undifferentiated or Other Model
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
Flight Phase: Initial Climb

Component
Aircraft Component: Landing Gear
Aircraft Reference: X
Problem: Malfunctioning

Person
Location Of Person.Aircraft: X
Location In Aircraft: Flight Deck
Reporter Organization: Air Carrier
Function.Flight Crew: Pilot Flying
Function.Flight Crew: Captain
Qualification.Flight Crew: Air Transport Pilot (ATP)
Qualification.Flight Crew: Multiengine
Qualification.Flight Crew: Instrument
Experience.Flight Crew.Total: 17000
Experience.Flight Crew.Last 90 Days: 100
ASRS Report Number.Accession Number: 1885585
Human Factors: Fatigue
Human Factors: Time Pressure
Human Factors: Troubleshooting
Human Factors: Workload
Human Factors: Distraction

Events
Anomaly.Aircraft Equipment Problem : Critical
Anomaly.Deviation / Discrepancy - Procedural : Published Material / Policy
Anomaly.Ground Event / Encounter : Weather / Turbulence
Anomaly.Inflight Event / Encounter : Weather / Turbulence
Detector.Person : Flight Crew
When Detected : In-flight
Result.Flight Crew : Overcame Equipment Problem
Result.Flight Crew : Landed in Emergency Condition
Result.Flight Crew : Returned To Departure Airport
Result.Flight Crew : Requested ATC Assistance / Clarification
Result.Air Traffic Control : Issued New Clearance
Result.Air Traffic Control : Provided Assistance

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

Narrative: 1

Scheduled to operate Aircraft X. Got to the gateway on time XA30 pm and there was light rain on the field. By the time we were loaded up the rain changed to a very heavy snow. The weather was calling light snow -3C. The snowfall intensity table entering those conditions showed it to be moderate snow and gave me a holdover time of 30 minutes to an hour. I called my Dispatcher and he agrees. We then pushed back to taxi to the de ice station. During taxi the snow had already piled up and the breaking action became nil. I slid to a stop and set the brake and reported to Ground. They sent snow plows to me and cleared me a path back to the parking spot. It was just coming down too hard and I figured the runway would be bad also. I figured that even though the weather was calling light snow, in my judgement it was actually heavy snow with a rapid rate of accumulation. We made it back to the gate and waited 4 plus hours for the conditions to improve. And to allow them to plow the field. During this time I worked with Dispatch and also informed Operations of our situation. The airport was putting out very different runway condition reports so it was hard to determine safe and legal. Reports were rapidly going from 3/3/3, 1/1/1, 6/6/6. There were 4 other flights dealing with the same issues as me. The Company flights cancelled at around XC00 pm and us and the 2 cargo Jet planes sat at the ramp waiting for the conditions to get better. After the long wait the snow let up a bit and all surfaces had been plowed so I decided to try again. I had the numbers I needed. One of the cargo jet had already taxied to the de ice pad and I asked him how the taxiway was and he reported them as fine but they were returning to the gate because their snowfall intensity table was more restricted than mine they needed 1 mile visibility for the weather to be considered moderate snow I only needed 3/4 of a mile. I then taxied to the de ice station. It took about 1.5 hours to de ice. The snow never stopped but was going back and forth from heavy to light. After we were de iced we were cleared for takeoff and the visibility was 1.5 miles and the runway was plowed. After liftoff we couldn't retract the gear. Due to the icing conditions, I was now in an urgent condition and needed to get on the ground fast. We [advised ATC], asked for immediate vectors back to Runway XX ILS Cat 2. The weather app on my EFB showed tops to 15000 to 25000 ft. and the storm went for hundreds of miles around me so where I took off from was my best bet to get out of the ice. We threw in the approach, quick brief, ran all checklist, checked for any checklist guidance on the gear but found none. We tried twice to get them up but only the doors would open and I didn't want to risk getting them into an unlocked condition. The Controller gave me short vectors to about a 6 mile final. I put both autopilots on, selected
med auto brakes and we couldn't get the ACARS to provide landing numbers so I flew 
hook plus 10. 5 for ice and 5 for gusty winds. Somewhere around 500 ft. we saw the 
runway. I allowed the autopilot to get us to 200 ft. and turned them off. I didn't know how 
it would perform in those conditions The landing was uneventful and I sent the CFR guys 
home. We then were told we could not park back at our gate and had to wait a few hours 
for them to plow remote parking for us. Once in remote parking we waited for stairs and a 
ground crew. Shut down. Called Company. Plan was for us to try again as we had 2 hours 
duty left. After what we just went through I determined that to be unsafe and said no. 
They coded us as Fatigued and called the hotel. We had to wait for an hour or so for 
ground transport due to the bad road conditions. Got to the hotel at XK30 am with a plan 
of leaving out again at around XD00 pm. I got in bed at XM00 am and fell asleep. At XQ37 
the phone in my room rang. It was the front desk saying to call Scheduling. I called them 
and was informed that we now had a much earlier departure. XU00pm van. I told him he 
disturbed my rest, I've only been sleeping for 4.5 hours after a long stressful duty day. 
The tone in the Schedulers voice changed and I could feel the pressure amping up. I asked 
if my FO (First Officer) had also been called and he said yes and he was ok to fly. I told 
him I'd call the FO and ask him myself. My FO said he was ok so we agreed to have a 
XU00pm van and try to get out of there again. We figured we'd show up, step on the jet 
and fly home. Arriving at the gateway we took them by total surprise. There was only a 
few office staff there. Told us it would be hours before workers showed up. I decided to 
use that time to get with Dispatch as the jet would be flown to ZZZ1 gear down. That was 
an extensive flight planning session and it was determined that we could only weigh 
262000 in flight in case I lost an engine and needed to stay above the clouds as you can't 
fly in icing conditions with the gear down and there were clouds enroute with tops to 
10000 ft. We also had to multiply our fuel burn by 2.2 per the charts. In order to do that 
the 60k of cargo would have to be unloaded. There was nobody to do that. At that point I 
was so tired I was struggling with even simple tasks and decided the mission was too 
complex and would take too long for my crew to safely fly. I informed the dispatcher, and 
2 [other pilots] that we were too tired to fly and they all agreed we were not rested 
enough for the flight. We were again coded as fatigued and sent back to crew rest. During 
that rest we went from laying over for 24 Plus hours to being jump seated home the next 
morning.

Synopsis

Air carrier Captain reported that after long departure delays due to heavy snow and de-
icing, the landing gear would not retract during takeoff. The flight returned for 
maintenance and crew rest however after planning for another departure the crew 
reported too fatigued to fly.
Time / Day
Date: 202203
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
Aircraft Operator: Air Carrier
Make Model Name: B757-200
Crew Size.Number Of Crew: 2
Operating Under FAR Part: Part 121
Flight Plan: IFR
Mission: Passenger
Nav In Use: FMS Or FMC
Flight Phase: Landing
Route In Use: Other

Component: 1
Aircraft Component: Main Gear Wheel
Aircraft Reference: X
Problem: Failed

Component: 2
Aircraft Component: Normal Brake System
Aircraft Reference: X
Problem: Improperly Operated

Person: 1
Location Of Person.Aircraft: X
Location In Aircraft: Flight Deck
Reporter Organization: Air Carrier
Function.Flight Crew: Pilot Flying
Qualification.Flight Crew: Instrument
Qualification.Flight Crew: Multiengine
Qualification.Flight Crew: Air Transport Pilot (ATP)
ASRS Report Number.Accession Number: 1883754
Human Factors: Confusion
Human Factors: Fatigue
Human Factors: Situational Awareness
Human Factors: Workload
Human Factors : Communication Breakdown  
Communication Breakdown.Party1 : Flight Crew  
Communication Breakdown.Party2 : Flight Crew  

**Person**: 2  
Location In Aircraft : Flight Deck  
Reporter Organization : Air Carrier  
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 : 1883756  
Human Factors : Workload  
Human Factors : Time Pressure  
Human Factors : Human-Machine Interface  
Human Factors : Fatigue  
Human Factors : Confusion  
Human Factors : Communication Breakdown  
Human Factors : Situational Awareness  

**Events**  
Anomaly.Aircraft Equipment Problem : Critical  
Anomaly.Deviation / Discrepancy - Procedural : Published Material / Policy  
Anomaly.Deviation / Discrepancy - Procedural : FAR  
Anomaly.Deviation / Discrepancy - Procedural : MEL / CDL  
Detector.Person : Air Traffic Control  
Were Passengers Involved In Event : N  
When Detected.Other  
Result.General : Maintenance Action  
Result.General : Flight Cancelled / Delayed  
Result.Flight Crew : Requested ATC Assistance / Clarification  
Result.Air Traffic Control : Provided Assistance  
Result.Aircraft : Aircraft Damaged  

**Assessments**  
Contributing Factors / Situations : Aircraft  
Contributing Factors / Situations : Human Factors  
Contributing Factors / Situations : MEL  
Contributing Factors / Situations : Procedure  
Primary Problem : Human Factors  

**Narrative**: 1  
After landing during the rollout two left main tires blew. We did not know the tires had blown until Tower advised us of our situation. We had already exited the runway then stopped to have the aircraft evaluated by our Mechanics. They decided to put the gear pins in and tug us into parking. The Mechanic advised us no damage to flaps appeared so we retracted flaps and shut down the engines for tow in. We had been on duty since XApd the night before and I believe fatigue played a part in this incident. We were scheduled for three legs and a 10 hour duty day. The third leg ZZZ1-ZZZ led to holding for about 30 minutes. We started an approach then the visibility went below legal. We diverted to ZZZ2 which had been planned while in holding with dispatch. In ZZZ2 Dispatch agreed we would wait out until weather cleared up. The gateway got us some food since we hadn't eaten
since XHpm the day before. This pairing had no catering scheduled. We had about 2 hours in ZZZ3 before our flight to ZZZ1. We got the green light to continue back to ZZZ when the incident occurred. I believe we had been on duty close to 13 hours at that point. The weather had improved and the approach seemed stable and touchdown normal. Due to the three MELs we elected to use flaps thirty on all of three flights. The left thrust reverser, all anti skid protection, auto brakes, CAT 3 downgraded, and 1 GPS were all MELd. I believe when I pulled up the 1 reverser I must have applied too much braking action. In hind sight, I wish I had just rolled long and never touched the brakes, however the other 2 legs had been uneventful with flaps 30, 1 thrust reverser, and manual braking with no anti skid or auto brakes.

**Narrative: 2**

While on the landing roll, the aircraft blew two of the left main tires. I was unaware of the situation until ATC advised that we had blown tires. The aircraft did not yaw nor show any signs of major vibrations. The Captain was able to exit the runway and bring the plane to a stop on the taxiway. I called the gate way to request a Mechanic and tug for further assistance. Factors that contributed to the blown tires were two MEL's and the possible fatigue factor of the crew. The aircraft had an MEL that resulted in the anti-skid protection being completely inop. Added to no anti skid protection, the aircraft had the left Thrust Reverser pined inop. We also had an MEL for one GPS inop, did not factor into approach as this was VFR backed up with ILS. Fatigue played a factor too. The night started in ZZZ3 with duty time XA:10 local (XF:10Z) First leg was flown to ZZZ2. We had a couple of hours in ZZZ2 where we picked up this tail to fly ZZZ2 - ZZZ1 then onto ZZZ. The landing at ZZZ1 was uneventful. The flight from ZZZ1 - ZZZ resulted in holding for weather below 1800 RVR, followed by a partial approach when RVR went to 2400 then a missed approach when RVR dropped back to 1200. The missed was flown to new alternate from the company at ZZZ4. Landing at ZZZ4 we were advised of new advisory to operate back to ZZZ. At the time of advisory the weather at ZZZ was 200 ft. and low visibility. At this time we had been operating with out a meal since dinner at around XE:00 local time ZZZ, over 12 hrs. We did request some food from the gateway at ZZZ4 and they were great in making this happen. We were able to depart ZZZ4 flying back to ZZZ and do a visual approach. On this landing the two left main tires blew.

**Synopsis**

B757-200 flight crew reported two main tire assemblies deflated on landing roll out due to excessive manual braking applied due to three different MELs on the aircraft. The aircraft was towed to the gate to complete the flight.
ACN: 1882878

Time / Day
Date: 202203

Place
Altitude.AGL.Single Value: 0

Environment
Flight Conditions: IMC
Weather Elements / Visibility.Visibility: 1

Aircraft
Reference: X
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

Person
Function.Flight Crew: Captain
Function.Flight Crew: Pilot Flying
Qualification.Flight Crew: Air Transport Pilot (ATP)
Qualification.Flight Crew: Instrument
Qualification.Flight Crew: Multiengine
ASRS Report Number.Accession Number: 1882878
Human Factors: Workload
Human Factors: Fatigue
Human Factors: Time Pressure

Events
Anomaly.Deviation / Discrepancy - Procedural: Published Material / Policy
Anomaly.Deviation / Discrepancy - Procedural: FAR
Anomaly.Ground Event / Encounter: Weather / Turbulence
Anomaly.No Specific Anomaly Occurred: Unwanted Situation
Detector.Person: Flight Crew
When Detected: Pre-flight
Result.General: Flight Cancelled / Delayed

Assessments
Contributing Factors / Situations: Company Policy
Contributing Factors / Situations: Environment - Non Weather Related
Contributing Factors / Situations: Human Factors
Contributing Factors / Situations: Procedure
Contributing Factors / Situations: Staffing
Contributing Factors / Situations: Weather
Primary Problem: Ambiguous

Narrative: 1
I am happy to provide great detail for a fatigue call I felt cornered to make even though yes, I was extremely tired, I also should not have been considered legal to fly. Prior to this trip I received normal rest and felt well fit to perform my duties. Date was the start of my trip beginning with a 5 leg day and after our first flight to ZZZ, we were stuck on the ground for 3:XX hours due to a large cell that grid locked State from ZZZ1 down. I alerted Dispatch, ATC, and Crew Scheduling of this situation and suggested that scheduling assign our ZZZ2 turn to a reserve crew to keep all flights on time and avoid a rolling delay and the possibility of our crew timing out, but this was ignored and so all flights aside from our first flight were a rolling delay. After additional delays due to weather and maintenance, our crew was then required to take a 2 hour extension, leading to 7:XX of blocked flight time, 13:XX hours of duty and 12:XX hour layover. The day of my fatigue call began with rolling delays without even enough time in between to stop and eat. Our crew did our best to make up flight time and turn time to get the delays minimized, however due to a heavy snowstorm in ZZZ3, we had to wait in line to be de-iced. We ended up over blocking over 1:XX hours on our flight back to ZZZ4. If scheduling would have built out the trips correctly showing a 40 minute turn in ZZZ4 and a 3 hour blocked flight to ZZZ5, it would have showed us going beyond our 13 hour FDP (Flight Duty Period) for Date 1. The trip had been manipulated to show a 3X minute turn and 10 minutes less of block which with 15 minutes of post duty time, we would have been still past 13 hours of block. Since I had been extended the night prior, I then need 30 hours of rest before being extended again. When contacting the scheduler about this I was told that the situation was being monitored and that updated number were “in the cue”. I was told to hold off until receiving a push notification and a call from scheduling. At this point I was definitely-fatigued and was going to generate a report regardless, however I did not want to have to use the fatigue call and deal with the negative ramifications of doing so (i.e., sick bank reduction and reduction of min guarantee/tier pay) considering that this was a legal issue as well. After receiving the updated data that clearly showed that pushing back 5 minutes prior to receiving the "updated" numbers that we were going to arrive at ZZZ5 beyond our FDP, I then called scheduling again to be released legally. We ended up conferencing Chief Pilot to discuss legality. I was told that if I push right now, 10 minute taxi to take off and 2:XX of flight and 5 minutes taxi into ZZZ5 that I’d be able to make it with the 30 minute extension. All of that was predicated on being fully boarded and pushing back at that moment (XA:45pm) and taking off no later than XB:05pm with only 2:XX flight time which we were not at all in the position to do. The math was completely skewed as we hadn’t boarded because we were told to hold off since we were very close to illegally crossing into our hard 117 limitation. One minute beyond would result in a violation of 117 rest requirements and is completely illegal. The Chief Pilot was asked how to proceed by the scheduler and stated that if scheduling said we are able to make it happen based on their timeline then we should try for it. I expressed the unrealistic ability to make the flight happen and the situation of violating a 117 regulation and still was made out to feel that I was the cause of our delay. If anything happened in flight as in ATC slowing us down, giving us a hold, deviating around weather (which we very well may have needed to do) or simply not had a ground crew ready to taxi us in, I would have been in the situation of needing to divert, open the flight deck door prior to block in or declare an emergency to get to an airport in time before violating my 117 rest requirements. I knew my personal limits as to my own health and well-being and was certainly tired regardless, therefore was forced to use the fatigue call even though using realistic numbers, we were not legal to fly but was, in my opinion, being bullied into trying to make the flight happen at all cost and that to me is a big safety concern. I believe that crew scheduling needs to not pressure pilots into potentially violating 117 regulations. It is a joint responsibility of our team to ensure that the flight is safe and legal to fly. They also need to do a better job of collaborating with the pilot group. This entire situation could have been avoided had scheduling removed the ZZZ2 turn from our crew the night before as I had suggested. All
flights aside from ZZZ-ZZZ4 would have been operated on time. Instead this lead to out crew worked to the extent of our legal limits during fatiguing situations such as weather, maintenance and delays. I understand that we are in a tight situation with Pilot availability, however it is most important that flights are being conducted safely and in correspondence with 117 FDP limitations. I believe the root cause might be the culture that we are in currently. We have a very short staff of reserve pilots at the moment and so I feel that mostly we try to stretch our pilots thin in order to satisfy the consumer demands of travel. I would have loved to see that flight go and get the customers to their destination, however it is my responsibility to operate that aircraft safely and legally. It should not be the culture to pressure pilots into making a flight happen that will potentially cause a violation. This culture is a safety concern and must be changed.

Synopsis

Air carrier pilot reported making a fatigue call after experiencing multiple delays, crew scheduling issues, and not being able to meet the rest requirements of FAR 117.
I had to call in sick for my trip on Date, and throughout this report I want to expand on why I made that call. The reason for my sick call was fatigue, to the point that I didn't feel fit to fly for the above-mentioned trip. I believe long hours of working caught up on me and made me more tired than I normally am after my trip. In the past 365 days, I
accumulated 967:XX hrs. of block time and many times I went above 990 in the past few weeks. If it wasn't for a couple of conversion from active flying to deadhead, I believe the 1,000 hrs. limit would have been reached. (In the past 28 days I have deadheaded for 14 hrs:XXmin and blocked for 79:XX [hrs]. If I flew the above scheduled trip, the total block could have been close to about 90 hours) Even though few flying picked up by desire here and there, (crew to crew, and mainly to help out colleagues with immediate family needs) scheduling pressure at our airline has never been as high as it has been recently. Long stretch of working days back-to-back, minimum days off, inefficient days with long seats around the airport, and lack of scheduling flexibility is the common issue among my peers these days. As an example, over the holiday I worked 7 days in a row, (a 3 day and a 4 day) and it was legal only because we had 30 hrs. of layover on my 3-day trip. First day of that trip was scheduled to fly X international legs with a block hour of 8:XX which included almost 3 hrs. of seat at ZZZ [airport]. The whole trip worth around 14 hrs. for 3 day and still don't know why that trip scheduled to be so packed and close to FAR 117 limits. There have been many months in the past year that I didn't intend to fly as many hours as I did, but the way schedules are being assigned, you try to pick up something with the hope that it brings your monthly credit high enough so that you can drop another trip, but most of the time last minute changes in crew availability makes you work all the extra trips you picked up. Even at times when the reserve coverage looked good, there are so guidelines restricting us from making any safety adjustments to our schedule. Hopefully my report cast some light on my sick call due to fatigue, and hopefully our cumulative effort brings positive changes to our work rules; eventually making it a better, safer, and healthier place to work. Appreciate if this report and other similar report result in any kind of improvement in our scheduling system.

Synopsis

Air carrier First Officer reported having to call in sick due to fatigue resulting from long work hours. First Officer stated many consecutive work days with minimum days off and lack of scheduling flexibility are common issues at the company.
**Time / Day**
- Date: 202203
- Local Time Of Day: 0001-0600

**Place**
- Locale Reference: Airport: ZZZ.Airport
- State Reference: US

**Environment**
- Flight Conditions: VMC
- Light: Night

**Aircraft**
- Reference: X
- ATC / Advisory: Ramp: 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: Parked
- Route In Use: Vectors
- Maintenance Status: Maintenance Deferred: Y
- Maintenance Status: Records Complete: Y
- Maintenance Status: Released For Service: Y
- Maintenance Status: Required / Correct Doc On Board: Y
- Maintenance Status: Maintenance Type: Unscheduled Maintenance
- Maintenance Status: Maintenance Items Involved: Testing
- Maintenance Status: Maintenance Items Involved: Inspection

**Component : 1**
- Aircraft Component: AC Generator/Alternator
- Aircraft Reference: X
- Problem: Malfunctioning

**Component : 2**
- Aircraft Component: Electrical Distribution
- Aircraft Reference: X
- Problem: Malfunctioning

**Person**
- Location Of Person: Aircraft: X
- Location In Aircraft: Flight Deck
- Reporter Organization: Air Carrier
- Function: Flight Crew: Pilot Flying
- Function: Flight Crew: Captain
- Qualification: Flight Crew: Air Transport Pilot (ATP)
Aircraft X began with a report time of XA:15 local time at ZZZ with a destination of ZZZ1. Upon maintenance logbook review, two items of note were the INOP APU [for oil quantity I believe] and a #2 engine igniter INOP. These MEL items required an engine start at the gate with external air cart and a manual start for Engine #2. Aircraft was blocked with Engine 2 started at the gate under guidance from Section X reference material. Unable to cross bleed start in the alley the aircraft repositioned for a "Cross bleed start" to taxi for departure. At this point the inflight called forward to inform us of a loss of all electrical power in in the cabin and trouble using the interphones. The galley power had shed and was only indicated by a note on the electrical page of the ECAM (Electronic Centralized Aircraft Monitor). As per procedure I made a call to Dispatch and Maintenance Control for further direction. A description of the events was given to Maintenance Control and I asked for their direction to restore the galley bus. Under direction of Maintenance Control, I reset Sec 1, 2 and 3. I am unsure why the SECs would be used for the solution, but I defer to the knowledge of MX (Maintenance) Control. I never attempted to start the remaining engine which may have cured the problem, mostly because of the trouble with interphones and the unexpected galley issues. The call to MX Control was to get help in assessment of the failures and to find an easy solution. The reset was unsuccessful and Maintenance directed me to return to gate have the local maintenance fix the problem. Which to me
indicated a larger aircraft systems problem. In the hour of troubleshooting, the customers were left without air-conditioning and the cabin reached 90 degrees with many of the customers complaining of the heat. A water service was started by the inflight. Back at the gate Maintenance was unable to reset the galley power by normal procedures and worked on the problem for one hour. The solution was to start both engines and the INOP APU, which MX started while still on MEL [the MEL was never cleared] at the gate along with a reset of the galley bus to restore galley function. I was told push off the gate with both engines as the solution. The aircraft was boarded and customers seated so we closed up received a new release and fuel summary for block out. The flight blocked out at XB:12 local. At push back the wheel chocks were lodged in place and unable to be moved with both engines running. The push crew advised that we needed to shut an engine down to free the chocks. I asked for Maintenance on the interphone and a MX person answered on the tug comm. I advised that shutting down may cause the same galley problem and might result in a gate return a second time. Maintenance understood and recommended the Engine 2 shut down, to free the chocks, so Engine 2 was shut down. With the chocks free the push continued with Engine 1 running which resulted in the same situation of loss of electrical aft of the cockpit. The push was stopped at my request and the aircraft towed into the gate at XB:22 local with the same MX problem and logbook entry. I notified Dispatch of the return and a waited for further instructions from operations. At XC:00 local I called fatigued for the flight as a departure at this point would have had an arrival time of XD:00 local in ZZZ1 and I was not safe to operate the far into the red eye period. I was never informed that all the failures might be normal and associated with the APU inop and single engine start. If so I would have continued with the normal operation and chock the situation up to my failure to recognize the associated failures.

Synopsis

A321 Captain reported communications issues caused lengthy delays and a fatigue call after load shedding interfered with engine start and push back from the gate.
**ACN: 1880910 (39 of 50)**

**Time / Day**

Date: 202203
Local Time Of Day: 0601-1200

**Place**

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

**Environment**

Flight Conditions: VMC

**Aircraft**

Reference: X
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: Climb
Airspace. Class B: ZZZ

**Component**

Aircraft Component: Turbine Engine
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 Flying
Qualification. Flight Crew: Air Transport Pilot (ATP)
Qualification. Flight Crew: Instrument
Qualification. Flight Crew: Multiengine
Experience. Flight Crew. Last 90 Days: 148
Experience. Flight Crew. Type: 304
ASRS Report Number. Accession Number: 1880910
Human Factors: Communication Breakdown
Human Factors: Situational Awareness
Human Factors: Troubleshooting
Human Factors: Workload
Human Factors: Fatigue
Communication Breakdown. Party1: Flight Crew
Communication Breakdown. Party2: Other
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: Air Transport Pilot (ATP)
Qualification: Flight Crew: Multiengine
Experience: Flight Crew: Last 90 Days: 159
Experience: Flight Crew: Type: 3799
ASRS Report Number: Accession Number: 1880925
Human Factors: Workload
Human Factors: Troubleshooting
Human Factors: Situational Awareness
Human Factors: Distraction
Human Factors: Communication Breakdown
Human Factors: Fatigue
Communication Breakdown: Party1: Flight Crew
Communication Breakdown: Party2: Other

Events

Anomaly: Aircraft Equipment Problem: Critical
Anomaly: Deviation / Discrepancy - Procedural: Published Material / Policy
Anomaly: Deviation / Discrepancy - Procedural: Clearance
Detector: Person: Flight Crew
When Detected: In-flight
Result: General: Flight Cancelled / Delayed
Result: General: Maintenance Action
Result: Flight Crew: Inflight Shutdown
Result: Flight Crew: Requested ATC Assistance / Clarification
Result: Flight Crew: Landed in Emergency Condition
Result: Flight Crew: Returned To Departure Airport
Result: Air Traffic Control: Provided Assistance

Assessments

Contributing Factors / Situations: Aircraft
Primary Problem: Aircraft

Narrative: 1

Captain [was] Pilot Flying and First Officer [was] Pilot Monitoring. Takeoff roll on Runway XXL was uneventful. On climb out, Pilot Monitoring noticed the autothrottle (A/T) disengaged and re-engaged it. It happened a second time with the same results. The number 2 engine had trouble exactly matching the commanded climb thrust. I also reengaged the A/T at least once. After engaging the autopilot around 5-6,000 ft. MSL, Pilot Flying noticed excess yaw and roll and disengaged autopilot. Both pilots noticed the number 2 engine was at approximately 60 percent N1 with a white arc showing commanded vs actual position. There were no other engine indications or abnormalities. The crew accomplished Immediate Action Items for the "Engine Limit or Surge or Stall" checklist. Pilot Monitoring requested an intermediate level off at 10,000 ft. and continued course. Captain gave First Officer radios and Pilot Flying duties shortly after leveling of at 10,000 ft. After the turn at ZZZZZ on the ZZZZZ2, ZZZZZ1 SID, ATC gave vectors to
remain in the local area. Aircraft was at 10,000 ft. MSL, 230 KIAS near location west of ZZZ. The crew ran the remainder of Quick Reference Handbook for "Engine Limit or Surge or Stall" checklist and coordinated with local Maintenance and Maintenance Control/Dispatch, notified passengers and FM. Requesting priority handling by ATC and crew simultaneously when 20-25 minutes into flight the engine rolled back and failed. Crew ran the "Engine Failure or Shutdown" checklist and the "One Engine Inoperative Landing" checklist. Crew planned and executed an overweight, single engine, return to ZZZ. To land below max landing weight we would have needed to fly for roughly 2 more hours. A planned overweight visual approach to Runway YYL via vectors to a 10-mile final with 15-flaps was uneventful with a smooth landing. Crew taxied to Gate XX and shut down the remaining engine to wait for baggage/pallet carts to be moved and then tow-in. No sooner than we had parked, Crew Scheduling called me, notifying us that we would be leaving in roughly 65 minutes to ZZZ1. We decided that we needed to re-evaluate our fitness for duty and needed to speak to Union representation before proceeding any further. We then spoke to Maintenance Control over the phone and then hub maintenance at the aircraft to discuss the events. We had noticed that the Fuel Pump Package had been replaced that morning with an engine run accomplished. The number 2 HMU, Heat Exchanger and Fuel Pump were replaced following the engine failure in flight. A member of the Chief Pilot's office, and later the Chief Pilot, met us at the aircraft to check on us, coordinate with Company (scheduling, Chief Pilot, etc) and accomplish a [safety evaluation]. We reached a mutual conclusion it was not in the best interests of safety to fly as we were still processing the chain of events during the flight and the associated stress/workload. We accomplished a thorough debrief and reconstruction of the flight. Preflight: Both of us woke early due to the nature of the schedule. It was day 2 of the 4-day pairing, with an early show ZZZ2-ZZZ3 on day 1. Originally scheduled to fly ZZZ3-ZZZ, the pairing had been changed to a deadhead due to equipment substitution. The evening was relaxing and we were both asleep early. I slept from XA:00 pm until XJ:30am. In the morning I had a very long hold time with the Company's Agent on Demand before van pickup time at XM:02 AM. The flight plan was released while I was getting ready for the van ride. I knew we had a longer van ride, so I did not expect this to be a problem. We left the hotel on time and reviewed the flight plan en route. We were scheduled for a random southerly route ZZZ-ZZZ1 at FL300 due to significant impacts from turbulence and convective activity/SIGMETS, increasing the complexity. The Dispatcher had asked the Captain to call regarding this flight, which I did during the van ride. We both had significant distractions with the functioning of the weather app on our EFBs (this is an ongoing issue where it attempts to connect and then drops connectivity). On arriving at the airport, we had the additional task of [Covid procedures]. I went to the mission planning area while the First Officer went to the aircraft to begin the preflight to save time. The 45-minute report time was compressed, especially with the additional attention to weather/turbulence and verifying the random route points. Fortunately, we departed Gate XY, close to the satellite mission planning room, saving some time. There was some pressure from the Gate Agents for us to leave and then the ramp personnel were waiting for us to push. I used CRM and our company process approach to ensure everything was ready to go before releasing brakes. Taxi: We planned Runway ZZR for departure, and Ground Control changed us to ZZL. I called for the runway change procedure and we were split-task for a few minutes to update the required information. The remainder of the taxi out was uneventful.

Narrative: 2

Captain [was] Pilot Flying (PF) [and] First Officer (FO) [was] Pilot Monitoring (PM). Takeoff roll on Runway XXL was uneventful. On climb out, PM noticed the autothrottle disengaged and re-engaged it. It happened a second time with the same results. The PF also reengaged the autothrottle at least once. After engaging the auto pilot around 5-6,000 ft.
MSL, PF noticed excess yaw and disengaged autopilot. Both pilots noticed the #2 engine was at approximately 60% N1 with a white arc showing commanded vs actual thrust. There were no other engine indications or abnormalities, so the situation was difficult to detect. PF accomplished Immediate Action Items for Engine Limit, Surge or Stall (there were no additional items in QRC). PM told ATC about an engine malfunction in progress and requested an intermediate level off at 10,000 and continued course on ZZZZZZ2, ZZZZZZ1 SID. Shortly after the turn at ZZZZZZ2, ATC gave vectors to remain in the local area. Aircraft was at 10,000 ft. MSL, 230 KIAS near location west of ZZZ. FO ran remainder of QRH while Captain coordinated with local Maintenance and Maintenance Control/Dispatch, notified passengers and FM. Then Captain gave FO radios and aircraft control while Captain continued coordination and checklists. [Priority handling requested] by ATC and crew simultaneously. Approximately 20-25 minutes into flight the engine rolled back and failed. Captain ran Engine or Failure or Shutdown Checklist and the One Engine Inoperative Landing Checklist. ATC provided vectors to a ten-mile final for a 15-flaps (165 KIAS) visual approach to Runway XYL. Approach and landing was uneventful with minimal forces during the overweight landing at approximately 170,000 lbs. Crew taxied to Gate XX and shut down the remaining engine to wait for baggage/pallet carts to be moved and then towed in. While we were waiting for the gate, 20 minutes after landing, we received an ACARS message that this aircraft would be a "Quick Turn" going back to ZZZ1. No sooner than we had parked, Crew Scheduling called the Captain, notifying us that we would be leaving in less than three hours for the same flight. I spoke up and told scheduling I could not speak for the Captain, but I would have to re-evaluate my fitness for duty and needed to speak to my [Union] representation before proceeding any further. The Captain concurred. We then spoke to Maintenance Control over the phone and then Hub Maintenance at the aircraft to discuss the events. I had noticed that the Fuel Pump Package had been replaced that morning with an engine run accomplished. I verbalized this during mission planning and was surprised that the aircraft would be sent on an ETOPS flight without any maintenance verification or reliability check. Of note, the #2 HMU, Heat Exchanger and Fuel Pump were replaced following the engine failure in flight. A member of the Chief Pilot's office, and later the Chief Pilot, met us at the aircraft to check on us, coordinate with Company (scheduling, Chief Pilot, etc) and accomplish a human factors [evaluation]. We reached a mutual conclusion it was not in the best interests of safety to fly as we were still processing the chain of events during the flight and the associated stress/workload. The Captain and I accomplished a thorough debrief and reconstruction of the flight. Preflight: Both of us woke early due to the nature of the schedule. It was Day 2 of the 4-day pairing, with an early show ZZZZ-ZZZZ3. Originally scheduled to fly ZZZ3-ZZZ, the pairing had been changed to a deadhead due to equipment substitution. The evening was relaxing and we were both asleep early, resulting in a very early wake-up (XA:30 AM for me). Personally, this was not an issue as I knew I would be flying a single leg with an early end to the duty day. However, I tried to rest as much as possible before van pickup time at XE:02 AM. I had some personal business to attend to, so I did not spend as much time on the flight as I normally do before leaving the hotel room. I knew we had a longer van ride, so I did not expect this to be a problem. We left the hotel on time and reviewed the flight plan en route. We were scheduled for a random route ZZZ-ZZZ1 at FL300 due to significant impacts from turbulence and convective activity/SIGMETS, increasing the complexity. The Dispatcher had asked the Captain to call regarding this flight. We both had significant distractions with the functioning of the weather app on our EFBs (this is an ongoing issue where it attempts to connect and then drops connectivity). I was still updating the route while the Captain spoke with Dispatch, so he had to repeat the information to me later. On arriving at the airport, we had the additional task of [Covid Procedures]. The Captain went to the mission planning area while I went to the aircraft to being preflight to save time. The 45-minute report time was compressed, especially with the additional attention to weather [and] turbulence and
verifying the random route points. Fortunately, we departed Gate XY, close to the satellite mission planning room, saving some time. There was some pressure from the Gate Agents for us to leave and then the ramp personnel were waiting for us to push. The Captain used CRM and our company process approach to ensure everything was ready to go before releasing brakes. Taxi: We planned runway XXR/F for departure, and ground control changed us to Runway XXL. The Captain called for the runway change procedure and we were split-task for a few minutes to update the required information. The remainder of the taxi out was uneventful. In-flight: As the PM (FO), I consciously observed a heightened awareness of the engine instruments on takeoff roll (more than usual). I did not notice the correlation to the auto throttle and the #2 N1, however, and neither of us noticed any other abnormalities in performance or indications. The autothrottle has disengaged in the past during takeoff or climb out, so this did not seem unusual at first. CRM: The Captain delegated tasks, but a couple of times we both answered or duplicated radio calls. We were methodical to ensure we were performing the appropriate checklists as this was an unusual situation. The term "Engine Limit" as part of the title was not readily apparent as applicable, but we realized the first line in the Condition Statement is "Engine Indications are abnormal". We had already applied the Immediate Action items through our analysis and stabilization of the aircraft and the QRC does not call for any additional actions. We also determined that this checklist concluded at Step X with the engine at reduced thrust and coordination with Maintenance Control and Dispatch. In the checklist, communication errors and imperfect systems knowledge resulted in some confusion over brake setting for landing but was resolved. Finally, task management required split-task effort and re-brief, adding to the challenge, but we had plenty of time to verify all necessary items before entering the traffic pattern for landing at ZZZ.

**Synopsis**

B737 flight crew reported an engine failure after take off, resulting in an air turnback and precautionary landing at the departure airport.
ACN: 1879817

Time / Day
Date: 202202
Local Time Of Day: 0001-0600

Place
Locale Reference. ATC Facility: L30.TRACON
State Reference: NV

Aircraft: 1
Reference: X
ATC / Advisory. TRACON: L30
Aircraft Operator: Air Carrier
Make Model Name: B737-900
Crew Size. Number Of Crew: 2
Operating Under FAR Part: Part 121
Flight Plan: IFR
Mission: Passenger
Flight Phase: Climb
Airspace. Class E: ZLA

Aircraft: 2
Reference: Y
ATC / Advisory. TRACON: L30
Aircraft Operator: Air Carrier
Make Model Name: B737 Next Generation Undifferentiated
Crew Size. Number Of Crew: 2
Operating Under FAR Part: Part 121
Flight Plan: IFR
Mission: Passenger
Flight Phase: Climb
Airspace. Class E: ZLA

Person
Location Of Person. Aircraft: X
Location In Aircraft: Flight Deck
Reporter Organization: Air Carrier
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: 1879817
Human Factors: Fatigue
Human Factors: Distraction
Analyst Callback: Attempted

Events
Anomaly. Deviation - Altitude: Crossing Restriction Not Met
Anomaly. Deviation - Altitude: Overshoot
Anomaly. Deviation / Discrepancy - Procedural: Clearance
Anomaly.Inflight Event / Encounter : Wake Vortex Encounter
Detector.Person : Air Traffic Control
When Detected : In-flight
Result.Flight Crew : Returned To Clearance
Result.Air Traffic Control : Issued Advisory / Alert

Assessments

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

Narrative: 1

While departing on the Joker departure from Runway 26R we went above the hold down altitude at Kruger. We did not stop at 11,000 ft. and were notified by ATC at 11,500 ft. ATC immediately issued a higher cleared altitude. Moments earlier we had a substantial wake turbulence encounter from the preceding 737. This was a large distraction. In addition, this was the last leg of a 3 leg day of a 3 day trip. In hindsight, use of the autopilot would have prevented this entirely. Next time on a departure with hold downs I will use the autopilot.

Synopsis

B737-900 First Officer reported encountering wake turbulence from a preceding B737 departing LAS. This distraction contributed to missing a crossing restriction.
**Time / Day**

Date: 202201
Local Time Of Day: 0601-1200

**Place**

Locale Reference: ATC Facility: ZZZ.ARTCC
State Reference: US
Altitude.MSL.Single Value: 34000

**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: Cruise
Route In Use: Vectors
Airspace.Class A: ZZZ

**Component**

Aircraft Component: Hydraulic Main 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 Not Flying
Qualification.Flight Crew: Air Transport Pilot (ATP)
Qualification.Flight Crew: Multiengine
Qualification.Flight Crew: Instrument
Experience.Flight Crew.Total: 5366
Experience.Flight Crew.Last 90 Days: 114
Experience.Flight Crew.Type: 3510
ASRS Report Number.Accession Number: 1869048
Human Factors: Troubleshooting
Human Factors: Fatigue

**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.Total : 5300
Experience.Flight Crew.Last 90 Days : 120
Experience.Flight Crew.Type : 3500
ASRS Report Number.Accession Number : 1869054
Human Factors : Troubleshooting

Events
Anomaly.Aircraft Equipment Problem : Critical
Anomaly.Deviation / Discrepancy - Procedural : Clearance
Anomaly.Deviation / Discrepancy - Procedural : Published Material / Policy
Detector.Person : Flight Crew
Were Passengers Involved In Event : N
When Detected : In-flight
Result.General : Maintenance Action
Result.General : Flight Cancelled / Delayed
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

Approximately one hour from ZZZ on Aircraft X from ZZZ1 to ZZZ we encountered a green system low hydraulic quantity and low pressure ECAM. We performed the action items and turned off the PTU (power transfer unit) and green system engine driven pump. The Captain informed Dispatch, Maintenance, and briefed the lead Flight Attendant. We agreed with the concurrence of Dispatch that the best course of action was to continue to ZZZ. We requested priority handling and received traffic priority to ZZZ. On final approach, we performed the alternate gear extension checklist and landed on the longest runway (XXR). We stopped straight ahead due to no nose wheel steering and waited for the tug to tow us back to the gate. We completed the after landing flows, tow in checklist, and parking checklist back at the gate. The reason for my fatigue call to the Chief Pilot and scheduling following our incident was due to minimal broken sleep from the previous evening at the layover hotel. The hotel was hosting a fraternity convention and my sleep was disrupted from 1-3 am due to the occupants of the room next door. I called the front desk and they notified security to silence the fraternity party. Following the minimal disrupted rest and the stress associated with the hydraulic emergency, I felt I was not fit to continue duty and called in fatigue!

Narrative: 2

We were approximately 1 hour from ZZZ when we were alerted by a master caution and subsequent ECAM indicating a loss of green system hydraulics both quantity and pressure.
I continued flying and had my first officer accomplish the ECAM and subsequently the QRH. We requested priority handling with ATC and I then contacted Dispatch and Maintenance Control, it was decided that given the situation our best option was to continue on to ZZZ. At this point I had our lead flight attendant come up to the flight deck and briefed him on the situation and provided him with the required information. I then made a PA to the passengers explaining the situation and what to expect. We were provided expedited handling by ZZZ ATC and were able to accomplish all remaining clean up items on the QRH in an orderly and efficient manner. A non eventful and smooth landing was performed in ZZZ and we were able to maintain center line where we brought the aircraft to a stop and were meet by CFR and airport operations who towed us back to the gate.

Synopsis

A319 flight crew reported loss of green hydraulic system while in cruise. After communication with dispatch and maintenance, they elected to request priority handling and continue to destination airport.
I operated Aircraft X with Captain X. The next day I received a text message saying that his sore throat on that leg became aches and chills and his COVID test was positive. I worked three days with Captain (CA) Y. On the first leg, he was audibly sniffling. I asked if he felt OK, he said it was allergies due to a soapy smell in the flight deck. The next leg, new airplane, constant sniffling with a very intermittent cough. I was told he had dry pipes, and it was just his allergies. I put my mask on for the remainder of the flight. And informed CA Y, he sounded terrible. The next day the running nose continued. CA Y, was
seated behind me on DH, audible sniffling was so constant I relocated my seat. He text the next day saying he was so exhausted he slept twelve hours. I stated we can add fatigue to your COVID symptoms. On the van he verbally told me he woke up incredibly sweaty. My work health, and safety was negatively affected by CA X and Captain Y, lacking the personal responsibility of following company guidelines for reporting to work. Those expectations are laid out in pilot bulletin for revised coronavirus guidance. Pilot bulletin also sets an expectation of contacting medlink, the symptomatic pilot donning an N95, and containing himself to the flight deck.

**Synopsis**

First Officer reported flying with two different Captains who exhibited symptoms from COVID-19.
Time / Day
Date: 202201

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

Environment
Flight Conditions: VMC
Work Environment Factor: Temperature - Extreme
Light: Night
Ceiling: CLR

Aircraft
Reference: X
ATC / Advisory Center: ZZZ
Aircraft Operator: Air Carrier
Make Model Name: Medium Transport
Crew Size: Number Of Crew: 2
Operating Under FAR Part: Part 121
Flight Plan: IFR
Mission: Passenger
Flight Phase: Final Approach
Route In Use: Visual Approach
Airspace: Class E: ZZZ

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: 1867077
Human Factors: Situational Awareness
Human Factors: Workload
Human Factors: Confusion
Human Factors: Fatigue

Person: 2
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
Events
Anomaly.Deviation - Altitude: Overshoot
Anomaly.Deviation / Discrepancy - Procedural: Published Material / Policy
Anomaly.Inflight Event / Encounter: CFTT / CFIT
Detector.Automation: Aircraft Terrain Warning
Detector.Person: Flight Crew
When Detected: In-flight

Assessments
Contributing Factors / Situations: Airspace Structure
Contributing Factors / Situations: Chart Or Publication
Contributing Factors / Situations: Human Factors
Contributing Factors / Situations: Software and Automation
Contributing Factors / Situations: Weather
Contributing Factors / Situations: Procedure
Primary Problem: Weather

Narrative: 1
On the 4th leg of the day and short overnight due to getting in 2 hrs late the night before. Leaving ZZZ1 to ZZZ, the weather was clear and planning for a Visual, but backing it up with an approach per the company night visual policy. We choose the RNAV XX due to wanting something other than the ILS and not having flown the RNAV XX other than in the simulator. Once airborne and talking to Center we got slowed to slowest possible speed due to a MedEvac ahead of us on an approach to ZZZ. The MedEvac canceled IFR and allowed us to get cleared for the RNAV XX. We briefed it up as a visual backed up by the RNAV so I did not brief the notes on the approach. Flying the approach when turning final, I notice the PAPI was showing 4 red and thought that odd. I prepared to disconnect Autopilot and climb to the Visual Glide Path, but wanted to see what the approach was doing. Due to being close to the airport and seeing the ridge prior to the airport, I did not want to look at the notes to see if there was a note about the VGSI not coincident. About 200 feet above minimums the GPWS gave a Terrain Terrain warning. I promptly disconnected the Autopilot and climbed to follow the VGSI. We landed safely and checked the altitude to see if our altimeter was set incorrectly. That checked within 10 feet. During the taxi to the ramp, I noticed the cold weather temp comp was required for temps less than -7 deg. When stated, the Captain said something like that should't be the factor, then he looked at the DATA card which was on his yoke, and noticed that the temp was -13 degrees. Captain commented that the cold temp would probably account for the couple hundred feet low on the approach. Lessons learned brief notes when we probably will be flying an approach that ATC clears us for. Try to incorporate Temp Comp which is currently not allowed with any FMS approach even for visual approaches.

Narrative: 2
While conducting a night Visual Approach to Runway XX in ZZZ, we received a terrain warning. It was night visual conditions, and we were using the RNAV XX for guidance. The reported temperature on the AWOS was -13, which is below what is authorized by the procedure. We had the runway in sight throughout the procedure, and noticed that we were below glideslope on final. The terrain warning occurred while we were correcting our altitude. Although we were following an instrument procedure for the night visual, the
visual conditions probably lead to complacency in the approach briefing, leading to the
note being missed for the procedure.

Synopsis

Flight crew reported receiving a Ground Proximity Warning while on final approach due to
conducting the approach below the authorized minimum air temperature.
Time / Day
- Date: 202111
- Local Time Of Day: 1801-2400

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

Aircraft
- Reference: X
- Aircraft Operator: Air Carrier
- Make Model Name: Commercial Fixed Wing
- Crew Size.Number Of Crew: 2
- Operating Under FAR Part: Part 121
- Mission: Passenger
- Flight Phase: Final Approach

Person
- Location Of Person.Aircraft: X
- Location In Aircraft: Flight Deck
- Reporter Organization: Air Carrier
- Function.Flight Crew: Captain
- Qualification.Flight Crew: Air Transport Pilot (ATP)
- Qualification.Flight Crew: Multiengine
- Qualification.Flight Crew: Instrument
- ASRS Report Number.Accession Number: 1857302
- Human Factors: Physiological - Other
- Human Factors: Workload
- Human Factors: Fatigue

Events
- Anomaly.Flight Deck / Cabin / Aircraft Event: Illness / Injury
- Anomaly.Inflight Event / Encounter: Weather / Turbulence
- Detector.Person: Flight Crew
- When Detected: In-flight
- Result.General: None Reported / Taken

Assessments
- Contributing Factors / Situations: Company Policy
- Contributing Factors / Situations: Human Factors
- Contributing Factors / Situations: Staffing
- Primary Problem: Company Policy

Narrative: 1
1st day, scheduled ZZZ1-ZZZ2-ZZZ (XA:21 scheduled block). Fully into winter ops now. Scheduled arrival ZZZ time XP:31. Late fuel in ZZZ2. Late push. Strong headwinds to ZZZ. At gate in ZZZ at XP:58 local. Both of us were yawning and eye rubbing halfway through
our 6+ hour flight. On final approach, had trouble focusing and keeping scan congruent. Was difficult to plan and arrive on a stable, timely profile. At the FAF, encountered unexpected shifting winds & moderate turbulence. This required extra vigilance to avoid exceedance. I had gotten appropriate, average sleep the night before. I was hydrated and consumed caffeine drinks throughout the flight. Despite all this preparation to negate this poorly scheduled, untimely placed, over 8 hour block day - I was physically unable to keep up. I find a profound lack of reasoning for this sort of continuing pairing - build practice. Possibly because it often goes unreported, since fatigued people do not feel like doing reports, or facing the depletion of sick leave - dependent upon their reasoning for getting to a fatigued point. Ultimately, the flight was completed without incident. However, to make a long day even more unbearable - our van was not at the curb when we came out. This is despite being late. They arrived at XQ:24. Then, the driver decided to combine our ride with another airline. That added 20 minutes onto our drive. We arrived at the hotel at XR:00. The noise I experienced the next morning in the hotel, despite ear plugs, woke me up early (only 6 hours of broken sleep). I will attempt to nap today - but the cumulative nature of this may dictate a difficult decision later in the day. I feel like we keep scheduling like this despite the [current] environment - which is very stressful. Also, it's winter operations again. Not a conservative approach whatsoever. But "we" press on - don't we? Consider reducing long block and duty pairings to consider the current environment in which we operate in. Covid environment is a huge distraction and stressor. Our threats are threefold of the pre-Covid environment. We've been facing delays, shortages, planning and staffing issues that are NOT being taken into account in building schedules. Why? Because we pilots are counted upon to make it work. Oh... and there's winter - the highest risk season of all.

**Synopsis**

Air Carrier Captain reported chronic fatigue due to flight crew scheduling practices.
**Time / Day**

- Date: 202111
- Local Time Of Day: 0601-1200

**Place**

- Locale Reference: Airport: EWR.Airport
- State Reference: NJ
- Altitude.AGL.Single Value: 0

**Aircraft**

- Reference: X
- ATC / Advisory: Ground: EWR
- 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: 1857234
- Human Factors: Situational Awareness
- Human Factors: Fatigue
- Human Factors: Confusion

**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: Multigine
- Qualification.Flight Crew: Air Transport Pilot (ATP)
- ASRS Report Number.Accession Number: 1857233
- Human Factors: Fatigue
- Human Factors: Confusion
- Human Factors: Situational Awareness

**Events**
Anomaly.Deviation / Discrepancy - Procedural : Clearance
Anomaly.Ground Incursion : Taxiway
Detector.Person : Air Traffic Control
When Detected : Taxi
Result.Flight Crew : Became Reoriented
Result.Flight Crew : Requested ATC Assistance / Clarification
Result.Air Traffic Control : Provided Assistance
Result.Air Traffic Control : Issued New Clearance

Assessments
Contributing Factors / Situations : Airport
Contributing Factors / Situations : Chart Or Publication
Contributing Factors / Situations : Weather
Primary Problem : Chart Or Publication

Narrative: 1
During brief at gate in EWR I mentioned to First Officer EWR had some tricky taxiways and whole area here is a "HOTSPOT". Conditions, Wet, Rainy, Overcast, they said 10 miles on ATIS but it was hazy. Taxiing out from abeam gate XX. We rolled forward to the north. First Officer and I saw the sign for RC taxiway and I turned right. Ground gave us taxi instructions, "Aircraft X, RC, Bravo, Romeo, Runway 22R at Whiskey". Ground then said (as we taxied east out of ramp) that he'd appreciate it if we didn't use A9 in the future as it was a ramp entry not exit. (There were no other aircraft taxiing around us.) We inadvertently were not on RC but on A9 taxiway! The signage somewhat misled both of us seeing the RC sign on our immediate left. (A9 sign must have been on our right) those taxiways are close together and simple and easy mistake to make. I realized we were on A9 at this point because it didn't go straight thru to Bravo only Alpha then ended. First Officer and I were confused for a few seconds and I realized RC taxiway was in fact on our left! We should have stayed north on ramp for the next right turn. If you are viewing the EWR 10-9 you can see this area of uniqueness, you must continue north and west to get to RC. So we turned left on Alpha joined RC then Bravo and continued cleared taxi route. Established on taxiway Bravo I then immediately apologized to Ground Control and said the signage was a little misleading at "that" intersection. I understand our error completely. But First Officer said "I don't get it we are on RC!" I said no we were not. Also the taxiways were hard to see painted nomenclature with wet and reflective surfaces. Was flying a 5 day sequence that had us up very late on west coast first three nights then sequence had us leave early on east coast on day 5. Better to construct sequences the opposite way. An early getup followed by next several day's late departures is taking the "human element" into consideration! This may have been a casual factor if you look into our sequence. Unfortunately, this human element in regards to sleep patterns has disappeared!

Narrative: 2
During our departure briefing, the Captain said that there were some confusing taxiway and stated that the entire airport is a hotspot. When taxiing out of ramp area, Ground stated "RC B Runway 22R". Once crossing A to B the controller stated that we used A9 not RC. We both agreed and saw the signage for RC, but based on the taxi plate, the Captain did turn early. Five day sequence with late start and backing earlier each day and in which we ended last day with a XA:00 wake up, but previous days on West Coast, so overall sequence fatigue. We briefed what was expected, but both missed, and I think human factors did come into play. Lead out/in lines drop you off at A9, maybe RC on deck with
arrow forward would keep this from happening, also that part of the ramp is uncontrolled, maybe fixing whatever reason its uncontrolled would help.

Synopsis

Air carrier flight crew reported they turned on to the wrong taxiway at EWR Airport and cited confusing taxiway signage and fatigue as contributing factors.
**Time / Day**

Date: 202111  
Local Time Of Day: 1801-2400

**Place**

Locale Reference: ATC Facility: ZAU.ARTCC  
State Reference: IL  
Altitude.MSL.Single Value: 29000

**Environment**

Light: Night

**Aircraft**

Reference: X  
ATC / Advisory.Center: ZAU  
Aircraft Operator: Air Carrier  
Make Model Name: Commercial Fixed Wing  
Crew Size.Number Of Crew: 2  
Operating Under FAR Part: Part 121  
Flight Plan: IFR  
Mission: Passenger  
Flight Phase: Descent  
Airspace.Class A: ZAU

**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: 1856524  
Human Factors: Communication Breakdown  
Human Factors: Fatigue  
Human Factors: Situational Awareness  
Communication Breakdown.Party1: Flight Crew  
Communication Breakdown.Party2: Flight Crew

**Person: 2**

Location Of Person.Aircraft: X  
Location In Aircraft: Flight Deck  
Reporter Organization: Air Carrier  
Function.Flight Crew: First Officer  
Function.Flight Crew: Pilot Not Flying  
Qualification.Flight Crew: Instrument  
Qualification.Flight Crew: Multiengine  
Qualification.Flight Crew: Air Transport Pilot (ATP)
Experience.Flight Crew.Last 90 Days : 154
Experience.Flight Crew.Type : 3500
ASRS Report Number.Accession Number : 1856545
Human Factors : Situational Awareness
Human Factors : Fatigue
Human Factors : Communication Breakdown
Communication Breakdown.Party1 : Flight Crew
Communication Breakdown.Party2 : Flight Crew

Events

Anomaly.Deviation - Altitude : Undershoot
Anomaly.Deviation / Discrepancy - Procedural : Clearance
Detector.Automation : Air Traffic Control
When Detected : In-flight
Result.Flight Crew : Returned To Clearance
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

I am a hard-core AM Pilot. However, I picked up a two-day PM out of ZZZ the day after I finished a three-day AM out of my domicile in ZZZ1. Since it was out of ZZZ, I did not have to commute; however, I did wake up at approximately XA:30 am that day. We were at FL290 and cleared to cross POGGY at 240. As PF, I set the altitude in the FMC and verified VNAV PATH. However, I failed to set 240 in the MCP altitude window. During that call from Chicago Center, the FO was in the middle of updating weather, and performance data. We also got an ATC frequency change shortly after. Approximately five miles from POGGY, while at FL290, we were directed to descend to FL240. At that point we realized the mistake. ATC never mentioned anything about the lack of descent, but they gave us headings and altitudes to get us back on the STAR. The remainder of the flight was uneventful.

Narrative: 2

We were cruising at FL310, shortly before planned top of descent on the ENDEE 4 Arrival. Captain was PF, and I was PM. As it was the top of the hour, I was "heads down" and busy setting up for the arrival into MDW, requesting and writing down the most current ATIS, gate information, and obtaining landing data. In the middle of the process, we received a clearance from Chicago Center to cross POOGY at FL240, and maintain 300 KIAS in the descent. I read back the clearance to Center, and watched the Captain program the information into the FMC. He verbalized the information, I verified it, and he pressed the execute button. I looked at my FMA and verified the proper flight modes (LNAV and VNAV PATH), and resumed setting up for the arrival. After a couple of minutes, as I was finishing up the arrival preparation and ready for the Captain's approach briefing, we received a call from ATC (next sector Controller) with a clearance to descend to FL240. I thought that we had already started the descent, but when I glanced at my PFD and MFD I quickly realized that we were still at FL310, and only about five miles from POOGY! The Captain and I both looked at the altitude selector on the MCP, which was still set at 31,000 feet. He immediately set it for 24,000 feet, and we began a rapid descent at 300 KIAS in LVL CHG, with speedbrakes deployed. We crossed POOGY about 5,000 feet high, and were then
cleared down to FL190, with a speed reduction to 250 KIAS. We were still well above the planned descent profile (a strong tailwind was not helping) and I advised ATC that we would be high at the next crossing waypoint. Shortly thereafter, we rejoined the planned descent profile, and landed without further incident. As PM, I should have caught the error of failing to set the altitude selector for the descent. After I had observed both altitude and speed correctly entered into the FMC and executed, my mind went back to the tasks I had been working on when interrupted by the ATC call. As it had been a long day for me (I had been awakened earlier than normal for a service call at the house in the morning), I was a bit tired already, and lost a bit of focus. I was also distracted by the other tasks I was busy with in preparing for our arrival. As a result, I forgot to verify the crucial step that the altitude selector had been properly set.

**Synopsis**

Air carrier flight crew reported an altitude deviation during descent to MDW while on the ENDEE 4 Arrival. The Captain reported they entered the correct information in the FMC, but failed to set the altitude in the MCP altitude window and stated fatigue was a contributing factor.
### Time / Day
- **Date:** 202110

### Place
- **Locale Reference:** Airport: ZZZ.Airport
- **State Reference:** US
- **Altitude:** AGL. Single Value: 0

### Aircraft
- **Reference:** X
- **Aircraft Operator:** Air Carrier
- **Make Model Name:** EMB ERJ 145 ER/LR
- **Crew Size:** Number Of Crew: 2
- **Operating Under FAR Part:** Part 121
- **Flight Plan:** IFR
- **Mission:** Passenger
- **Flight Phase:** Other

### Person
- **Location Of Person:** Aircraft: X
- **Location In Aircraft:** Flight Deck
- **Reporter Organization:** Air Carrier
- **Function:** Flight Crew: Captain
- **Qualification:** Flight Crew: Air Transport Pilot (ATP)
- **Qualification:** Flight Crew: Instrument
- **Qualification:** Flight Crew: Multiengine
- **ASRS Report Number:** Accession Number: 1855563
- **Human Factors:** Fatigue

### Events
- **Anomaly:** No Specific Anomaly Occurred: Unwanted Situation
- **Detector:** Person: Flight Crew
- **Result:** General: None Reported / Taken

### Assessments
- **Contributing Factors / Situations:** Company Policy
- **Contributing Factors / Situations:** Human Factors
- **Primary Problem:** Company Policy

### Narrative: 1
After 4 days of giving new hire FO IOE I was exhausted. We finished up our four-day trip just about 2.5 hours late due to maintenance issues and an understaffed airline. The four-day finished at XA30pm. I then had to take the employee shuttle from the terminal which took time. I finally drove home to my place and made it to sleep around XDam [two and half hours later]. I did my best to sleep and I was unable to get adequate rest for the 5 legs I was supposed to fly on my 5th straight day of duty. The sign in was supposed to be 12 hours on the dot almost from when I finished my 4-day trip. Cause - Understaffed airline forcing us to do the last turn of the four day. The last turn resulted in maintenance
issues and required a plane swap. Due to this flight, we were 2.5 hours late and I was super tired from doing 2 straight weeks of IOE.

Synopsis
EMB-145 Captain reported going to work while extremely fatigued and attributed the challenging schedules to staffing issues at their company.
**ACN: 1852035 (48 of 50)**

**Time / Day**
- Date: 202111
- Local Time Of Day: 0601-1200

**Place**
- Locale Reference
- ATC Facility: D01.TRACON
- State Reference: CO

**Environment**
- Flight Conditions: VMC
- Light: Dawn

**Aircraft: 1**
- Reference: X
- ATC / Advisory.TRACON: D01
- Aircraft Operator: Air Carrier
- Make Model Name: Regional Jet CL65, Undifferentiated or Other Model
- Crew Size.Number Of Crew: 2
- Operating Under FAR Part: Part 121
- Flight Plan: IFR
- Mission: Passenger
- Flight Phase: Final Approach
- Airspace.Class B: DEN

**Aircraft: 2**
- Reference: Y
- ATC / Advisory.TRACON: D01
- Aircraft Operator: Air Carrier
- Make Model Name: Commercial Fixed Wing
- Operating Under FAR Part: Part 121
- Flight Plan: IFR
- Flight Phase: Final Approach
- Airspace.Class B: DEN

**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: 1852035
- Human Factors: Situational Awareness
- Human Factors: Fatigue
- Analyst Callback: Attempted

**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 : 1852031  
Human Factors : Situational Awareness  

Events  
Anomaly.Deviation - Speed : All Types  
Anomaly.Inflight Event / Encounter : Wake Vortex Encounter  
Detector.Person : Flight Crew  
When Detected : In-flight  
Result.General : None Reported / Taken  

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

Narrative: 1  
During approach to landing on 35L DEN prior to FAF we encountered brief wake turbulence which resulted in a momentary [stick] shaker activation although speed and attitude remained constant within parameters. During the wake encounter no pitching movement was observed, just roll change. My assumption was that the wake triggered the [stick] shaker. The activation was so brief that I had to ask my First Officer (FO) if the sound heard was the stick shaker. I didn't even notice a vibration. We were above the stabilized approach targets and prior to the FAF. I elected to continue the approach. Although I know we should have executed an upset recovery procedure and go-around, I was task saturated and mostly caught off guard because of how brief the event was. We ended up following the visual path down to a landing. I think it's worth mentioning, I am relatively new to this airplane and overall this was an eventful flight. Early wake-up [and] show time. We had a passenger issue, my first experience de-icing and a short flight (approx.15 minutes). We did our best to mitigate the short flight by briefing the full route on the ground. I think discussing what happens in momentary [stick] shaker events and contributing factors would be helpful. I discussed with my FO how the flight played out vs. what should have happened. I think in the future I will not hesitate [to] go around for a similar event.  

Narrative: 2  
While getting vectored onto a visual approach backed up by an ILS at approximately 1,800 ft AFE and prior to the final approach fix, the aircraft encountered a low level turbulence episode that resulted in a momentary, abrupt roll. This was likely due to wake turbulence from nearby aircraft. The encounter abruptly rolled the aircraft to the right, resulting in a bank angle of approximately 20 degrees and a brief, audible sound that resembled an electric motor that lasted approximately 0.5 second. Upon this, the Pilot Flying (PF) reversed the roll to return to the previous, normal aircraft attitude. No deviations in airspeed or pitch were observed. The rest of the approach and landing were uneventful.
Upon debrief, the PF suggested that the electric motor was likely evidence of stick shaker activation, but stated that the activation was so brief that he felt no shake from the control column. Although I did not immediately know what the source of the electric motor noise was, upon his suggestion I agreed that the stick shaker was the likely source of the noise. Upon suspected stick shaker activation, no matter how brief, terminate approach and perform a go-around/missed approach.

**Synopsis**

CRJ flight crew reported experiencing a brief stick shaker during a wake turbulence encounter on final approach to DEN.
ACN: 1850208 (49 of 50)

Time / Day
Date: 202110

Aircraft
Reference: X
Aircraft Operator: Air Carrier
Make Model Name: Medium Transport
Crew Size, Number Of Crew: 2
Operating Under FAR Part: Part 121
Flight Plan: IFR
Mission: Passenger
Flight Phase: Parked

Person
Location Of Person, Aircraft: X
Location In Aircraft: Flight Deck
Reporter Organization: Air Carrier
Function: Flight Crew: Captain
Qualification: Flight Crew: Air Transport Pilot (ATP)
Qualification: Flight Crew: Instrument
Qualification: Flight Crew: Multiengine
ASRS Report Number, Accession Number: 1850208
Human Factors: Fatigue

Events
Anomaly: Deviation / Discrepancy - Procedural: Published Material / Policy
Detector: Person: Flight Crew
When Detected: Aircraft In Service At Gate
Result: General: Work Refused

Assessments
Contributing Factors / Situations: Company Policy
Contributing Factors / Situations: Human Factors
Primary Problem: Company Policy

Narrative: 1
After working 5 consecutive days with a five leg day on day 4 with only a 10.5 hour rest period the night before and after just completing a 4 leg 9 hour day, I was junior manned. I did not feel alert or rested enough to accept the extension of my planned duty time, especially considering that it would have created a 7 day conflict with my next sequence. Cause - Staffing and Weather, ZZZ had long weather delays before my duty day had even started and was declared [non-normal operations]. The high winds and resulting weather made for a longer and more stressful day and I was very tired by the end. The bigger problem is the constant under staffing of the Captains on the Medium Transport aircraft in ZZZ. Junior manning should not be the only staffing solution, but it is! Every question above on this report is exasperated by the constant junior manning that we have experienced for the past X months.

Synopsis
Air carrier Captain reported fatigue due to long, consecutive days of flying and cited weather and staffing as contributing factors.
**ACN: 1849878 (50 of 50)**

**Time / Day**
- Date: 202110
- Local Time Of Day: 0001-0600

**Place**
- Locale Reference: ATC Facility: ORD.Tower
- State Reference: IL
- Altitude: MSL. Single Value: 3700

**Environment**
- Flight Conditions: IMC
- Weather Elements / Visibility: Thunderstorm
- Weather Elements / Visibility: Rain

**Aircraft**
- Reference: X
- ATC / Advisory: Tower: ORD
- Aircraft Operator: Air Carrier
- Make Model Name: Medium Large Transport
- Crew Size: Number Of Crew: 2
- Operating Under FAR Part: Part 121
- Flight Plan: IFR
- Mission: Passenger
- Flight Phase: Final Approach
- Airspace: Class B: ORD

**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: 120
- ASRS Report Number: Accession Number: 1849878
- Human Factors: Fatigue
- Human Factors: Situational Awareness
- Human Factors: Workload
- Human Factors: Communication Breakdown

**Person: 2**
- Location Of Person: Aircraft: X
- Location In Aircraft: Flight Deck
- Reporter Organization: Air Carrier
- Function: Flight Crew: First Officer
Function: Flight Crew : Pilot Not Flying
Qualification: Flight Crew : Air Transport Pilot (ATP)
Qualification: Flight Crew : Multiengine
Qualification: Flight Crew : Instrument
Experience: Flight Crew: Last 90 Days : 107
ASRS Report Number: Accession Number : 1850188
Human Factors : Workload
Human Factors : Situational Awareness
Human Factors : Fatigue
Human Factors : Communication Breakdown
Human Factors : Human-Machine Interface
Communication Breakdown: Party1 : Flight Crew
Communication Breakdown: Party2 : Flight Crew

Events
Anomaly.Deviation - Altitude : Excursion From Assigned Altitude
Anomaly.Deviation / Discrepancy - Procedural : Clearance
Anomaly.Inflight Event / Encounter : CFTT / CFIT
Detector.Person : Flight Crew
When Detected : In-flight
Result.Flight Crew : Returned To Clearance
Result.Flight Crew : Became Reoriented

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

Narrative: 1
Arriving [early in the morning] in Chicago after an all night flight. Weather in ZZZ was very poor as was weather in Chicago, with lots of turbulence en-route. Descending via Bradford Seven arrival and then vectors to ILS 10C, in heavy rain, thunderstorms, moderate turbulence, lightning and busy ATC communications. On vectors for ILS 10C and in level change descending to 4,000 feet, given clearance to intercept localizer. Continuing to descend to 4,000 feet, given clearance for ILS 10C. MCP altitude was changed without request, verbalization or verification to the marker crossing altitude. While descending, slowing, configuring, and intercepting the localizer in moderate turbulence and heavy rain the MCP altitude change went unnoticed by Pilot Flying (PF). We descended 300 feet below the last crossing restriction on the localizer prior to intercepting the glide slope. After that we intercepted the glide slope and flew a normal approach and landing. Debriefed at the gate about the importance of verbalizing, verifying, and monitoring all changes made to MCP.

Narrative: 2
Day 2 of a 3 day pairing with an all night flight to ORD with [an early morning] arrival. Weather was IMC on departure and approximately 1 hour of flight was spent in light to moderate turbulence. On arrival into ORD there were gusty winds, rain, broken clouds at 900 feet AGL and visibility of about 3 miles. Vectored onto ILS 10C approach [and] told to intercept the localizer and descend to 4,000 feet. Later we were given approach clearance. Once given the approach clearance the Pilot Monitoring (PM) changed the MCP altitude to the FAF altitude without request from the Pilot Flying (PF) and without verbalizing the change. The change in the MCP window occurred prior to the aircraft capturing the 4,000 feet level off and the FMAs changed to V/S and continued to descend below 4,000 feet.
The PF noticed the altitude deviation and intervened by using ALT HOLD. The aircraft ended up deviating 280 feet below the 4,000 foot altitude restriction and captured the glide slope shortly after the PF used ALT HOLD. The rest of the approach and landing were uneventful. PF and PM debriefed what led to the event and what could have been done better after safely parking the aircraft at the gate.

Synopsis

Air carrier flight crew reported descending below charted altitude on approach to ORD in instrument conditions when the First Officer improperly set the MCP altitude.