ASRS Database Report Set

Checklist Incidents

Report Set Description.....A sampling of reports from all aviation arenas referencing checklist issues (design, procedures, distraction, etc.).

Update Number.....39

Date of Update.....September 10, 2024

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

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

National Aeronautics and
Space Administration

Ames Research Center
Moffett Field, CA 94035-1000

TH: 262-7

MEMORANDUM FOR: Recipients of Aviation Safety Reporting System Data

SUBJECT: Data Derived from ASRS Reports

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

ASRS reports are submitted voluntarily. 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.

B Hooey

Becky L. Hooey, Director
NASA Aviation Safety Reporting System

CAVEAT REGARDING USE OF ASRS DATA

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

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

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

Report Synopses

ACN: 2103107 *(1 of 50)*

Synopsis

ERJ-175 flight crew reported a spoiler flight control malfunction during takeoff. The crew returned to the departure airport and landed overweight safely.

ACN: 2102021 *(2 of 50)*

Synopsis

C172 pilot conducting solo training maneuvers reported the engine quit during a maneuver due to the reporter using the wrong air/fuel mixture for their altitude and type aircraft.

ACN: 2092291 *(3 of 50)*

Synopsis

B737-800 flight crew reported a safety concern regarding a flight control system operation as described in the aircraft flight manual, conflicting with line maintenance troubleshooting of the system while on the ground.

ACN: 2087738 *(4 of 50)*

Synopsis

Fractional jet crew reported a terrain warning while on a visual approach in visual daylight conditions in mountainous terrain. The crew continued the approach with the shallow VNAV non-adjusted aircraft derived glidepath angle to a landing.

ACN: 2082212 *(5 of 50)*

Synopsis

Air carrier flight crew reported they taxied past Taxiway B14 at night in the rain which is the last taxiway to access PHX Runway 26 and entered a maintenance ramp. The flight crew reported inadequate lighting, ambiguous taxi instructions and no advisory on the chart contributed to the event.

ACN: 2078449 *(6 of 50)*

Synopsis

Air carrier flight crew reported a terrain obstacle alert while descending on the initial approach at night on a visual approach. The crew leveled out, then stabilized late on the approach, and continued the visual approach to landing.

ACN: 2070271 *(7 of 50)*

Synopsis

An Air Carrier First Officer GPS jamming in VIDF international airspace.

ACN: 2061468 *(8 of 50)*

Synopsis

General aviation pilot and instructor reported an engine malfunction during initial climb after takeoff, while in the traffic pattern. The pilot returned to the departure airport and landed safely in the opposite direction with no aircraft damage.

ACN: 2059201 *(9 of 50)*

Synopsis

Air carrier flight crew reported aircraft navigational system comparison monitor showing an abnormal situation. Flight crew returned to departure airport.

ACN: 2042854 *(10 of 50)*

Synopsis

Air carrier pilot reported a possible runway incursion while taxiing on Runway 6 with instructions to hold short of Runway 12L. Pilot recommends a "Hot Spot" flag/designation for this location on the airport diagram to warn of potential for incursion.

ACN: 2034107 *(11 of 50)*

Synopsis

SR-20 flight Instructor reported a message that stated a cylinder problem appeared prior to landing but after following the checklist, the message was gone. Upon roll-out, the engine failed and the aircraft stopped partially on the runway. The flight Instructor and Student pilot coordinated pushing the aircraft off the runway, restarted the engine, and taxied to parking.

ACN: 2031812 *(12 of 50)*

Synopsis

B737-700 flight crew reported an engine overheat after starting up Engine #1 following two aborted start attempts on Engine #2 while on the ground. Although the QRH deemed firing both extinguishing bottles into the affected engine unnecessary, the flight crew's company procedures had it as a required step.

ACN: 2019819 *(13 of 50)*

Synopsis

CRJ-200 Captain reported a right bleed duct warning message during climb out while operating a training flight. The Captain performed the checklist procedure and returned to the departure airport for a safe landing.

ACN: 2018511 *(14 of 50)*

Synopsis

C172 pilot reported engine power fluctuations during cruise required a diversion to a nearby airport. Pilot stated the checklist does not provide a procedure for this problem and the placement of the placard for switching fuel tanks is in a location that is difficult to view.

ACN: 2016795 *(15 of 50)*

Synopsis

Navion pilot reported landing on the runway gear up and was assisted by airport personnel in tugging the aircraft to the hangar. It was a hot day and the pilot reported not following the checklist procedures properly, and did not confirm the landing gear was down and locked.

ACN: 1993175 *(16 of 50)*

Synopsis

B737 flight crew reported anti skid system failure after selecting gear up. The flight crew ran the QRH and checklists, then checked the autobrake system, which also failed. The flight crew continued to destination airport.

ACN: 1992246 *(17 of 50)*

Synopsis

A319 Captain reported that the ECAM HYD Y RSVR LO LVL appeared while in cruise. As the flight crew ran and followed the QRH and checklists, there was confusion regarding a procedure with a hydraulic pump. After consulting with Dispatch and Maintenance Control, the flight crew performed an air turnback.

ACN: 1983222 *(18 of 50)*

Synopsis

B737 Flight Crew reported a suspected Fuel Leak after takeoff. The Flight Crew ran the QRH and checklists 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: 1971341 *(19 of 50)*

Synopsis

ERJ 170/175 Flight Crew reported Engine #2 vibrations in flight. The Flight Crew ran the checklist and QRH, solving the vibration problem. Engine #2 then failed. The Flight Crew performed an in flight shut down, and diverted to make a precautionary landing.

ACN: 1965134 *(20 of 50)*

Synopsis

C560 Flight Crew reported 5 minutes into cruise at FL330 the Master Caution Illuminated and Cabin ALT Illuminated. The Flight Crew requested priority handling and descended, donning oxygen masks. After running the QRH, the Pressurization Control Source Selector was placed in normal and pressurization control was regained. The Flight Crew elected to perform an air turn back and land at departure airport for maintenance.

ACN: 1942258 *(21 of 50)*

Synopsis

Flight Crew reported a fuel imbalance that increased in flight. The Flight Crew ran the checklists and QRH. An in flight shut down of the left engine was accomplished and a

request for priority handling was made. The Flight Crew elected to divert and make a precautionary landing.

ACN: 1935229 *(22 of 50)*

Synopsis

B737 Flight Crew reported reference to the QRH for engine oil quantity alert failed to provide any situational information, resulting in a diversion.

ACN: 1926048 *(23 of 50)*

Synopsis

Air carrier pilot reported GPS Jamming. The reporter also reported a lack of guidance in the QRH when receiving a Terrain Alert while encountering known GPS Jamming.

ACN: 1921992 *(24 of 50)*

Synopsis

EMB-170 Flight Crew reported a CABIN ALT HI EICAS Message illuminated passing 10,000 ft. The Flight Crew descended immediately and ran the QRH and checklists. It was discovered that the Cabin Pressurization Selector Knob was not in AUTO. The knob was placed in AUTO and the flight returned to departure airport.

ACN: 1919153 *(25 of 50)*

Synopsis

B757 Flight Crew reported receiving a Master Warning and CABIN ALTITUDE EICAS message at cruise. The Crew immediately descended and ran the QRH procedures and were able to continue to the destination airport.

ACN: 1909164 *(26 of 50)*

Synopsis

B737 NG Flight Crew reported receiving a terrain warning on short final approach to DEN airport due to flap misconfiguration. Flight crew stated they received a late runway change which resulted in a higher-than-normal rate of descent and not completing a checklist.

ACN: 1903778 *(27 of 50)*

Synopsis

B737 First Officer reported a flap asymmetry problem on approach. The Flight Crew executed a go-around and complied with the Checklist/QRH procedures. The Flight Crew then flew the approach to landing at destination airport.

ACN: 1902025 *(28 of 50)*

Synopsis

EMB-145 Flight Crew reported the failure of the HS 1 bleed valve. The pilots stated they ran the QRH, descended to a lower altitude, realized there was not enough fuel to complete the mission at the lower altitude and diverted. The pilots were in communication with their Dispatcher.

ACN: 1894250 *(29 of 50)*

Synopsis

Flight crew reported confusion during QRH procedures for a hydraulic system low quantity event. This led to an unnecessary manual extension of the landing gear, complicating the landing at destination airport.

ACN: 1894045 *(30 of 50)*

Synopsis

First officer reported a Leading Edge Flaps in Transit light on approach. The flight crew requested vectors for troubleshooting and to perform the QRH procedures. The flight crew then resumed the approach to landing at destination airport.

ACN: 1893085 *(31 of 50)*

Synopsis

B737 First Officer reported operating an aircraft with a long history of leading edge flap asymmetry discrepancies. This aircraft had a repeat discrepancy occur during approach to landing. The flight crew performed a go around and complied with the QRH procedures and rejoined the approach and landing at destination airport.

ACN: 1892419 *(32 of 50)*

Synopsis

SA-227 Flight Crew reported landing gear failed to retract when selected up after take off. The Flight Crew ran the QRH procedures and elected to perform an air turn back and precautionary landing at departure airport.

ACN: 1885604 *(33 of 50)*

Synopsis

Air Carrier Captain reported receiving a warning of smoke in the cargo compartment and returned to departure airport. The Captain reported the QRH does not adequately explain the procedure to resolve this warning.

ACN: 1861169 *(34 of 50)*

Synopsis

B757 Captain reported EFB content crashed while doing checklists for an engine fire. Reporter recommends retaining the paper copies of the QRH on the aircraft to mitigate this situation.

ACN: 1838870 *(35 of 50)*

Synopsis

Flight crew reported distractions from a near mid air collision resulted in the landing check list not being performed and a gear up landing.

ACN: 1838807 *(36 of 50)*

Synopsis

Flight Attendant reported a required checklist was missing and was found to be non MELable. This caused a breakdown in crew communications and a delay.

ACN: 1836639 *(37 of 50)*

Synopsis

EMB-175 Captain reported not finding a QRH procedure for an EICAS caution message and confusion over an associated MEL. The crew requested communicating with maintenance but was denied assistance while in flight.

ACN: 1824764 *(38 of 50)*

Synopsis

Air carrier flight crew reported experiencing a Stabilizer Out of Trim problem during climb out. They completed the appropriate QRH checklist and performed an air turn back.

ACN: 1819346 *(39 of 50)*

Synopsis

Flight crew flying 737 MAX aircraft reported missing the before takeoff checklist and Flight Attendant notification prior to takeoff due to engine warm up time constraints.

ACN: 1817740 *(40 of 50)*

Synopsis

B737 flight crew reported that complications and distractions due to weather led to the lack of proper checklist completion, resulting in the nose wheel steering being unavailable during taxi.

ACN: 1813994 *(41 of 50)*

Synopsis

Air carrier First Officer reported fatigue and procedural deviations led to the landing gear not being lowered per the checklist resulting in an unstabilized approach.

ACN: 1810675 *(42 of 50)*

Synopsis

B737 MAX Captain reported not activating the auto brake system for RTO when completing the before takeoff checklist.

ACN: 1802425 *(43 of 50)*

Synopsis

Air carrier Captain reported not performing the Before Taxi Checklist and subsequently had not set the flaps to the takeoff setting prior to moving the aircraft. Reporter cited distraction from dealing with face mask issues in the cabin area may have contributed to the event.

ACN: 1784065 *(44 of 50)*

Synopsis

Air carrier Captain reported forgetting to do the pre-takeoff checklist due to being distracted by a passenger being boarded without permission and another passenger not complying with face mask policy.

ACN: 1765654 *(45 of 50)*

Synopsis

After returning to departure airport with unreliable airspeed indication, the Captain suggested moving necessary charts to the relevant portion of the QRH for ease in location and use.

ACN: 1757535 *(46 of 50)*

Synopsis

First Officer reported two EICAS messages on final, causing a go around to allow time to run the QRH, landing safely on next approach.

ACN: 1757193 *(47 of 50)*

Synopsis

B737 Captain reported auto pilot not engaging as required and non QRH procedures were used to get autopilot to function correctly.

ACN: 1756780 *(48 of 50)*

Synopsis

B737-700 flight crew could not find checklist for Leading Edge Devices Not Extended.

ACN: 1748126 *(49 of 50)*

Synopsis

Air carrier First Officer reported taxiing out to the runway and finding items were missed during their before taxi flow checklist.

ACN: 1740617 *(50 of 50)*

Synopsis

B737 Captain reported failure to fully comply with QRH procedure following a pitch trim failure.

Report Narratives

ACN: 2103107 *(1 of 50)*

Time / Day

Date : 202404
Local Time Of Day : 0601-1200

Place

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

Environment

Flight Conditions : IMC
Light : Daylight

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 : Landing

Component

Aircraft Component : Spoiler 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 Not Flying
Function.Flight Crew : Captain
Qualification.Flight Crew : Multiengine
Qualification.Flight Crew : Air Transport Pilot (ATP)
Qualification.Flight Crew : Instrument
Experience.Flight Crew.Total : 4100
ASRS Report Number.Accession Number : 2103107
Human Factors : Troubleshooting
Human Factors : Situational Awareness

Person : 2

Location Of Person.Aircraft : X
Location In Aircraft : Flight Deck
Reporter Organization : Air Carrier
Function.Flight Crew : First Officer

Function.Flight Crew : Pilot Flying
Qualification.Flight Crew : Air Transport Pilot (ATP)
Qualification.Flight Crew : Multiengine
Qualification.Flight Crew : Instrument
Experience.Flight Crew.Total : 1804
ASRS Report Number.Accession Number : 2103105
Human Factors : Situational Awareness
Human Factors : Troubleshooting

Events

Anomaly.Aircraft Equipment Problem : Critical
Anomaly.Deviation / Discrepancy - Procedural : Weight And Balance
Anomaly.Deviation / Discrepancy - Procedural : Published Material / Policy
Detector.Automation : Aircraft Other Automation
Detector.Person : Flight Crew
When Detected : In-flight
Result.Flight Crew : Returned To Departure Airport

Assessments

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

Narrative: 1

Overweight landing after a Spoiler Fault on takeoff and [requested priority handling] to come back in and land. I was aware of the overweight landing no more than 1000 lbs but did not see the rate of descent on the VSI as we touched down. Cause: I was in an emergency situation with flight control malfunction. My First Officer was doing a good job flying the aircraft but required 2 hands to maintain control so I brought the throttles to idle and helped maintain centerline upon touchdown. I did brief that for an overweight landing we do need a lesser rate of descent but upon touchdown I was looking outside to bring the aircraft to a stop. Suggestions: The Spoiler Fault checklist should emphasize in a note the loss of lift on flare and to reference an overweight landing checklist if needed.

Narrative: 2

Overweight landing after spoiler fault on takeoff. I was pilot flying during the event. Cause: During our event I was having to maintain an excessive amount of aileron input on the flight controls to keep the aircraft in a wings level attitude. During the descent before touchdown the Captain and I were heavily engaged in ensuring I was keeping the plane in a stable position to land. I was focused mainly on keeping the aircraft wings level and not on our vertical descent. Suggestions: Spoiler Fault checklist should reference a potential loss of lift due to spoilers being deployed and have a reference to the overweight landing.

Synopsis

ERJ-175 flight crew reported a spoiler flight control malfunction during takeoff. The crew returned to the departure airport and landed overweight safely.

ACN: 2102021 *(2 of 50)*

Time / Day

Date : 202402
Local Time Of Day : 1201-1800

Place

Locale Reference.ATC Facility : ZZZ.TRACON
State Reference : US
Altitude.MSL.Single Value : 8100

Environment

Flight Conditions : VMC
Light : Daylight

Aircraft

Reference : X
ATC / Advisory.TRACON : ZZZ
Aircraft Operator : FBO
Make Model Name : Skyhawk 172/Cutlass 172
Crew Size.Number Of Crew : 1
Operating Under FAR Part : Part 91
Flight Plan : VFR
Mission : Training
Flight Phase : Climb
Flight Phase : Descent
Flight Phase : Cruise
Airspace.Class E : ZZZ

Component

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

Person

Location Of Person.Aircraft : X
Location In Aircraft : Flight Deck
Reporter Organization : Personal
Function.Flight Crew : Single Pilot
Function.Flight Crew : Pilot Flying
Qualification.Flight Crew : Private
Qualification.Flight Crew : Instrument
Experience.Flight Crew.Total : 152.7
Experience.Flight Crew.Type : 41.7
ASRS Report Number.Accession Number : 2102021
Human Factors : Time Pressure
Human Factors : Training / Qualification
Human Factors : Situational Awareness
Human Factors : Workload
Human Factors : Confusion

Human Factors : Distraction
Human Factors : Troubleshooting

Events

Anomaly.Aircraft Equipment Problem : Critical
Anomaly.Deviation / Discrepancy - Procedural : Published Material / Policy
Anomaly.Inflight Event / Encounter : Loss Of Aircraft Control
Detector.Person : Flight Crew
When Detected : In-flight
Result.Flight Crew : Became Reoriented
Result.Flight Crew : Inflight Shutdown
Result.Flight Crew : Overcame Equipment Problem
Result.Flight Crew : Returned To Departure Airport
Result.Flight Crew : Regained Aircraft Control

Assessments

Contributing Factors / Situations : Aircraft
Contributing Factors / Situations : Company Policy
Contributing Factors / Situations : Human Factors
Contributing Factors / Situations : Manuals
Contributing Factors / Situations : Procedure
Primary Problem : Human Factors

Narrative: 1

As part of instrument rating and commercial certificate preparation and learning, I conducted a local solo flight, using a flight school owned aircraft, with the intention to practice commercial maneuvers and practice holds at and or near ZZZZZ waypoint. The flight was from and to ZZZ airport. I have chosen this waypoint due to a prominent visual landmark (a pump station), and a mayor highway that could be used for emergency landing, plus a nearby dirt/grass private runway, ZZZ1 Airport. I have also chosen to conduct these maneuvers at altitudes between 6,000 to 10,000 feet MSL with the intention to create plenty of separation between my aircraft and heavy training traffic commonly found around the area at lower altitudes, and present during this flight. My experience with this aircraft (Cessna Skyhawk C-172 S, 6 pack) at the time was limited, having significantly more time and knowledge on Piper PA 28-121 (Piper Pilot 100i with Garmin G3X. I started the flight by first being dispatched by school personnel. I had shown my required documents, answered questions regarding IMSAFE checklist, plan for the flight, weather briefing, legality of my navigation charts and documents, weight and balance and performance calculations. The only thing not asked during the process and important to the event was the planned altitudes which I already had decided on, and would have disclosed upon being asked. After taking off from ZZZ airport I initiated a climb up to 2,600 MSL due to the presence of clouds, staying under said clouds as required under VFR rules, until was able to resume a climb up to 9,000 msl, reaching altitude roughly around the area planned to conduct the maneuvers. As indicated on the aircraft climb and cruise checklists, I had configured the aircraft and have adjusted the air/fuel mixture upon leveling off under the cloud ceiling. Once clear of clouds, I resumed the climb in the direction to ZZZZZ, still leaned. Once reached desired altitude, I performed a dual VOR check using ZZZ VOR, then proceeded to hold at ZZZZZ, announcing intentions overa frequency, a frequency commonly used in the area for air to air communications and advisories, dominantly at this particular location, and a common frequency used between flight school aircraft. The weather throughout the flight was as brief and expected, being clear sky around my planned maneuvering area for more than enough distance. Expected

winds and temperatures, not particularly turbulent or uncomfortable conditions. Once done holding for around 4-6 laps, I set the air-fuel mixture to full rich in preparation for the rest of the maneuvers. The reason for this is that up to this point, I have been instructed by all my CFI's to set the mixture to full rich before performing these type of maneuvers. Unfortunately, I was not fully aware that the POH indicates to lean the mixture for all operations over 3,000 MSL. I had the knowledge that the engine at such altitudes performs better with a leaner mixture, but wrongfully opted to follow what I have been told multiple times to do by my instructors. The instructions to set the mixture to full rich has always been given when at lower altitudes (1,000-5,000 MSL) but was never told it should only apply to low altitudes, as they have clearly never expected a student to choose higher altitudes to perform these maneuvers. I began practicing numerous maneuvers including parabolic climbs and descents, steep turns, chandelles, lazy eights, power on/off stalls, and others, occasionally announcing my movements over the frequency and looking for traffic by sight, as I did not had ADS-B in information available on the plane or on my EFB. Can't precisely recall the order, however, somewhere in between maneuvers I began a slow flight, testing the reaction of the controls at slow speed and high angle of attack, and eventually slowly entering into a power off stall maneuver as means to identify the aircraft stall indicated speed and following reactions to the stall condition. At roughly 8,400 MSL, as I was already near stall horn airspeed during slow flight, it only took a minor throttle movement to reach full idle, and was necessary to slowly add pitch up input to reach fluttering, then more pitch to reach a full stall condition. It took a fair amount of time between reducing speed to slow flight and the beginning of the stall, potentially giving the engine enough time to cool down excessively. In almost perfect synchrony, as the plane started to nose down during stall condition, the engine had a sudden drop of RPM and the propeller seemed to have come to a complete stop. Engine sound had mostly if not fully gone silent. I naturally and almost intuitively pitched down some to recover from the stall, stopping at a slight pitch down attitude. After a second or 2 just processing in my mind what just happened, I quickly assumed the engine stopped due to being too cold or for lacking air. I did not check the engine indications, instead, I quickly reacted by applying half throttle and at the same time, entering a descent maneuver to the left, in hope to get the propeller windmilling and restart the engine without using electricity. Given the altitude and proximity of suitable landing sites, this altitude tradeoff seemed plausible. Once reached fair amount of indicated airspeed in a matter of 3-5 seconds (likely aiming just below the start of yellow line on the speed indicator), I did not notice enough or no rotation at all from the prop. I turned the ignition key briefly (less than a second) to force the prop to rotate, and did start rotating, however, there was no clear immediate indication of the engine actually restarting (lack of loud engine sound, prop not rotating as fast as it would with the engine on). Now the prop turning at a slow speed and engine generating some sound, I adjusted the air/fuel mixture roughly to 50%, did not notice any immediate improvement, and quickly after, turned the ignition briefly once more, this time noticeably restarting the engine, prompting me to quickly adjust the throttle and mixture to a state where the engine ran comfortably, before setting full throttle and recover from the descent maneuver, returning in a timely manner to a higher altitude. The aircraft never came close to reach never exceed speed, or critical structural loads. The time between presumed engine off and engine restart felt as a duration of around 10 seconds in duration. I don't believe the altitude intentionally lost during the whole recovery process was greater than 1,000 feet. Once back in straight and level flight, I began assessing the situation, monitored engine and electrical indications, checked fuel indications and settings, finding no anomalies, no indications of malfunction, no improper configurations. Convinced that the engine had shut off due to air starvation / improper air/fuel mixture setting, I continued to fly the plane, using various levels of throttle, listening, monitoring the engine performance and other indications, not finding any indications of an unsafe condition of the aircraft, and believing the aircraft to be in

safe working condition. I continued performing a few other maneuvers, this time properly leaned to the altitude and the engine running noticeable better. I returned to ZZZ airport as planned and uneventfully. I did not advise ATC or distress using radio or transponder, or requested any assistance throughout the flight, as I did not felt was necessary at the moment given the initial altitude and the following normal operating indications. I was aware of the landing alternatives near my location at all times during and after the event, but never made the decision to use them. I was sufficiently rested, sober from all substances, in a good emotional and health state, with no particular pressures or obvious factors that could have negatively contributed to the event. I believe the incident is a direct result of lack of knowledge on proper use of air/fuel mixture for high altitude operations, combined with unclear/partial information and direction from flight school instructors in regard to using full mixture for maneuvers. Instructors have in numerous times it is the recommended procedure as per flight school policy. It's important to note that I have never been given a document stating this information, but have only been told personally during flight instruction. Haven't closely studied the POH in its entirety, and the information regarding recommended leaning over 3,000 MSL, I was not aware of the proper setting as per manufacturer, and relied instead on wrong information for this particular scenario. School personal had assumed students would not use high altitudes for these maneuvers, and I was never asked during the dispatch process of the aircraft about my planned altitude for my maneuvers. Once back at the school, I returned the aircraft documents and keys, had the times logged, and communicated about the engine "quitting on me" during the flight. After brief questioning, the person also came to the conclusion that the engine was turned off by accident and was not due to malfunction. Unknown to me if the person reported the situation. Later that night, not knowing if the event was reported, I messaged the person in charge of my schedule and class, this time having the expected response to initiate a reporting process. Unknown if the aircraft was inspected before the next flight the following day. The school immediate halted solo flights from being scheduled to me, and I am still under that condition for at least the remaining of the commercial portion of the program. The reason given for this is not particularly the involuntary engine air starvation, but the decision making leading into, and after the event. I have acknowledged these mistakes and believe to have learned from the experience. Since then I have informed myself further on the aircraft configurations and systems, understood the importance of reacting with precaution, expecting a worst situation than the perceived. The school has not specifically given any additional instruction specifically addressing the concerns from this event, nor have provided opportunities to practice and develop further my decision making and procedures. The limitation on only flying with instructors has only created scenarios where I am in great part limited to follow instructions. I currently feel lacking proficiency on solo and cross country skills given the lack of opportunity execute and make decision on these. My flights has been reduced to simulated instrument and occasional closely monitored and controlled local flying. During this time where I have exclusively flown with instructors, I have witnessed unsafe practices such as flying inside clouds under VFR rules with me using a view limiting device and unable to properly identify the situation, an instructor pulling the AHRS circuit breaker (in flight, on an instrument approach) against school policy to simulate partial panel scenarios, an instructor falling asleep during cruise, an instructor mistaking left pattern/right pattern, going against of what was instructed by Tower ATC, several instructors teaching to use the GPS and a single VOR to performs VOR checks (using GPS in obs mode simulating dual vor, or using GPS waypoints instead of ground references). These situations feel unsafe and are creating a growing concern over safety.

Synopsis

C172 pilot conducting solo training maneuvers reported the engine quit during a maneuver due to the reporter using the wrong air/fuel mixture for their altitude and type aircraft.

ACN: 2092291 *(3 of 50)*

Time / Day

Date : 202403
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
Mission : Passenger
Flight Phase : Parked

Component

Aircraft Component : Aileron Trim System
Aircraft Reference : X
Problem : Malfunctioning
Problem : Design

Person : 1

Location Of Person.Aircraft : X
Location In Aircraft : Flight Deck
Reporter Organization : Air Carrier
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 : 2092291
Human Factors : Communication Breakdown
Human Factors : Troubleshooting
Communication Breakdown.Party1 : Flight Crew
Communication Breakdown.Party2 : Maintenance

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 : 2091743
Human Factors : Communication Breakdown

Human Factors : Troubleshooting
Communication Breakdown.Party1 : Flight Crew
Communication Breakdown.Party2 : Maintenance

Events

Anomaly.Aircraft Equipment Problem : Less Severe
Anomaly.Deviation / Discrepancy - Procedural : Maintenance
Anomaly.Deviation / Discrepancy - Procedural : Published Material / Policy
Detector.Person : Flight Crew
When Detected : Pre-flight
Result.General : Maintenance Action

Assessments

Contributing Factors / Situations : Aircraft
Contributing Factors / Situations : Equipment / Tooling
Contributing Factors / Situations : Human Factors
Contributing Factors / Situations : Manuals
Contributing Factors / Situations : Procedure
Primary Problem : Ambiguous

Narrative: 1

On Day 0, while operating a flight, the Captain and I noted the aileron trim did not stop when commanded while conducting the aileron trim check during the before start checklist flow. We made an logbook entry and ended up plane swapping. I followed the airplane for several days (out of curiosity because I had never encountered this maintenance item previously). The plane ended up being taken out of service for several days while they replaced the aileron quadrant springs (737-800). On Day 37, while operating a flight, the Captain and I noticed the aileron trim continued to move after releasing the aileron trim switches during the trim check. We made an logbook entry and ended up plane swapping. I mentioned the previous event to both the Captain and the mechanics - making clear to differentiate that the Day 0 event was a NG (Next Generation). The plane remained out of service for approximately 48 hrs while the aileron tap centering unit cam bearing was replaced (737-MAX 8). On Day 37, after plane swapping, we again found ourselves on another aircraft where the aileron trim did not stop when commanded while conducting the aileron trim check. We made another logbook entry. A mechanic reluctantly agreed to sign off the entry as "normal" after a maintenance supervisor boarded the aircraft. The supervisor stated he "checked 4 other 737 Max aircraft and they all behave the same. Therefore, it must be normal." The logbook closure included a maintenance reference so the Captain and I accepted the aircraft. The rest of the flight was conducted normally (737-MAX 8). On Day 38, while conducting a flight the aileron trim behaved completely normally during the trim check - stopping when commanded and not drifting, continuing, etc (737-MAX 8). Having been on the fleet for 2 years, it has not been a normal occurrence for the aileron trim to continue to move once the switches are released during the trim check. We are taught to trust our mechanics. However, it is extremely disconcerting 3 separate, yet identical, maintenance events can result is 2 wildly different outcomes (1- aircraft taken out of service for days to replace parts or 2- told the situation is completely normal). If the situation is indeed normal, then why were the other 2 aircraft taken out of service for the same issue as the aircraft that was not removed from service? If it is normal for the aileron trim to continue to move after releasing the switches, then please update the aircraft operating manual accordingly.

Narrative: 2

On Day 0 the aileron trim randomly coasted for .5 to 1 units after the trim switch was released during the preflight trim check. The aircraft went out service and replaced by another one, which had the exact same problem. A mechanic reluctantly signed off the issue after a maintenance supervisor walked onto the aircraft. The maintenance supervisor said he checked 4 other 737s and the aileron trim coasted on each one, therefore it was a normal event. The sign-off referenced a maintenance document, so I accepted the aircraft. The next day, I flew on another aircraft which did not have any coasting of the aileron trim. If it is normal for the aileron trim to randomly coast after the activation has stopped them place that info in the 737 operating manual.

Synopsis

B737-800 flight crew reported a safety concern regarding a flight control system operation as described in the aircraft flight manual, conflicting with line maintenance troubleshooting of the system while on the ground.

ACN: 2087738 *(4 of 50)*

Time / Day

Date : 202402
Local Time Of Day : 1201-1800

Place

Locale Reference.Airport : ASE.Airport
State Reference : CO

Environment

Flight Conditions : VMC
Weather Elements / Visibility.Visibility : 10
Light : Daylight
Ceiling : CLR

Aircraft

Reference : X
ATC / Advisory.Tower : ASE
Aircraft Operator : Fractional
Make Model Name : Medium Transport, Low Wing, 2 Turbojet Eng
Crew Size.Number Of Crew : 2
Operating Under FAR Part : Part 135
Mission : Passenger
Flight Phase : Initial Approach
Route In Use : Visual Approach

Component

Aircraft Component : Autoflight System
Aircraft Reference : X
Problem : Improperly Operated

Person

Location Of Person.Aircraft : X
Location In Aircraft : Flight Deck
Reporter Organization : Fractional
Function.Flight Crew : First Officer
Function.Flight Crew : Pilot Flying
Qualification.Flight Crew : Air Transport Pilot (ATP)
ASRS Report Number.Accession Number : 2087738
Human Factors : Human-Machine Interface
Human Factors : Situational Awareness
Human Factors : Training / Qualification
Human Factors : Communication Breakdown
Communication Breakdown.Party1 : Flight Crew
Communication Breakdown.Party2 : Flight Crew

Events

Anomaly.Aircraft Equipment Problem : Less Severe
Anomaly.Deviation / Discrepancy - Procedural : Published Material / Policy

Anomaly.Inflight Event / Encounter : Unstabilized Approach
Anomaly.Inflight Event / Encounter : CFTT / CFIT
Detector.Automation : Aircraft Other Automation
Detector.Person : Flight Crew
When Detected : In-flight
Result.General : None Reported / Taken

Assessments

Contributing Factors / Situations : Aircraft
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

It was my first trip into Aspen, working for company. The weather was CAVOK. I had loaded the RNAV-F. The two remaining approaches in the FMC database were the localizer to 15 and another RNAV approach, which we did not have a plate for. The PM notice the RNAV-F did not have a runway associated with it. It was decided that a RNWY EXT would be used in lieu of the localizer approach because it would provide vertical guidance using VNAV. Due to time pressure, being vector for the approach, the PM neglected to change the glide slope angle from 3° to 3.5°. Though The high on the generated VVAV path, a soft, terrain warning was followed by a hard terrain warning. In good VMC conditions, the descent rate was shallow, and the train was visually cleared. The approach was continued to a landing. The GPWS provided appropriate terrain warnings. Terrain avoidance was done visually. During the course of the flight, I inquired as to what approach we may get into Aspen. It was my understanding that company had a tailored approach to runway 15. The database only had two approaches that the crew had plates for. The database was checked to be current prior to the 1st flight of the day. The crew was late doing the approach checklist due to a late start getting landing data. The descent rate was shallowed, but not enough to prevent the train warning. The approach was continued with the terrain insight to a landing. It goes without saying, I should’ve went around.

Synopsis

Fractional jet crew reported a terrain warning while on a visual approach in visual daylight conditions in mountainous terrain. The crew continued the approach with the shallow VNAV non-adjusted aircraft derived glidepath angle to a landing.

ACN: 2082212 *(5 of 50)*

Time / Day

Date : 202402
Local Time Of Day : 1801-2400

Place

Locale Reference.Airport : PHX.Airport
State Reference : AZ
Altitude.AGL.Single Value : 0

Aircraft

Reference : X
ATC / Advisory.Tower : PHX
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 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 : 2082212
Human Factors : Communication Breakdown
Human Factors : Confusion
Human Factors : Situational Awareness
Communication Breakdown.Party1 : Flight Crew
Communication Breakdown.Party2 : ATC

Person : 2

Location Of Person.Aircraft : X
Location In Aircraft : Flight Deck
Reporter Organization : Air Carrier
Function.Flight Crew : Pilot Flying
Function.Flight Crew : Captain
Qualification.Flight Crew : Multiengine
Qualification.Flight Crew : Instrument
Qualification.Flight Crew : Air Transport Pilot (ATP)
ASRS Report Number.Accession Number : 2082085
Human Factors : Confusion
Human Factors : Situational Awareness

Events

Anomaly.Conflict : Ground Conflict, Less Severe
Anomaly.Deviation / Discrepancy - Procedural : Clearance
Anomaly.Ground Excursion : Taxiway
Anomaly.Ground Incursion : Ramp
Anomaly.Ground Event / Encounter : Weather / Turbulence
Detector.Person : Flight Crew
When Detected : Taxi
Result.General : Flight Cancelled / Delayed
Result.Flight Crew : Requested ATC Assistance / Clarification
Result.Flight Crew : Became Reoriented
Result.Air Traffic Control : Provided Assistance

Assessments

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

Narrative: 1

After pushback, engine start, and completion of the After Start Checklist, we obtained taxi clearance from Ground to taxi to Runway 26 via B. Given the short taxi, the nighttime conditions and the moderate to heavy rain experienced during taxi, the CA (Captain) taxied at a slow speed to allow me to accomplish all my Before Takeoff tasks without being rushed. While taxiing straight on taxiway B, we performed the Flight Control checks, notified the FA′s (Flight Attendants), and performed the Before Takeoff Checklist in its entirety. After completing the checklists, I was heads up for the last portion of the taxi. While looking for the B13 entrance to the runway to hold short of Runway 26, the CA and I realized that we had taxied straight on B beyond B14 and could not maneuver the airplane in order onto Taxiway B14. The CA set the brake and I notified Ground that we has missed B14 and would need additional instructions. Ground coordinated with the Maintenance Ramp and cleared us to taxi via B, into the Maintenance Ramp and then exit onto R to join B14 and hold short of Runway 26. We then taxied into the Maintenance Ramp. One on the centerline of the Maintenance ramp, I couldn′t verify that we had the necessary clearance between our wingtip and the aircraft parked to our right, and the CA couldn′t verify our wingtip clearance on his side. We set the brake and coordinated with Ground and Maintenance, who sent marshallers to guide us and confirm we had wingtip clearance. The CA also called to notify the Duty Pilot and Dispatcher of our situation and delay. Once we had the Marshaller′s guidance and could guarantee our wingtip clearance, we continued our taxi out of the Maintenance Ramp onto R. On R we held short of B, verified we were set up, above MIN Fuel, and "in the green," and we reran the Before Takeoff Checklist. After receiving takeoff clearance, we departed Runway 26 and the flight continued normally. We employed multiple barriers to try to catch the error including slow taxi speed, completing all procedures and checklists during a straightaway (low workload environment), and having me as the FO (First Officer) be heads up with the CA as much as possible. Still multiple threats contributed: nighttime, heavy rain at the time of taxi which obscured both of our vision even with the use of windshield wipers, and inadequate taxiway lighting. In addition, I was using the Jeppesen 10-9 airport diagram and I had difficulty figuring out if we were at B14 or B13 since ATC allowed us to use either entrance

to 26 for a full-length takeoff. I think the ambiguity of the taxi clearance "Runway 26 via B" in which there are two possible B taxiways to use for a full length takeoff contributed to our confusion as well. Suggestions: Note in company pages that Runway 26 departures should be careful not to taxi on B beyond B14. Better taxiway marking or lighting and better signage to separate the direction to the runway from the entrance to the Maintenance Ramp. ATC should clarify whether a full length Runway 26 taxi clearance "via B" means B13 or B14 to improve standardization.

Narrative: 2

Runway 25R and 26 in use. Because runway is wet with slight tailwind, we requested Runway 26 for departure prior to push back for better performance. We exited the ramp normally with instruction B to Runway 26 from Point L. A band of heavy rain rolled over top of us while we were taxiing. I went as slow as possible to make sure we accomplished all tasks and procedures. I used the windshield wiper and followed the centerline. We came to B14 intersection, and I stopped. I noticed the sign to the right of intersection, and the airplane had just passed the intersection by few feet. We notified ATC. ATC amended the instruction and instructed us to turn around via Maintenance Ramp to R and hold short on B13. We entered the ramp and noticed there were many non-moving traffic. We stopped and requested assistance for ramp operation. While we were waiting for assistance, I called Duty Pilot to explain our situation and verified okay to continue. I contacted Dispatch to let him know where we were at and made sure we still met fuel requirements. A guide man and a wingman showed up to lead us onto Taxiway R. We made sure we were still legal and in compliance for takeoff, we ran the checklist again, then we were cleared for takeoff. The heavy rain dramatically reduced the visibility for taxi. At night, the taxiway end is not lighted enough and the centerline turned into lead-in line onto the ramp without any differentiation. There should be some division line or marking on the taxiway to notify us where the end of taxiway is for takeoff. In the day, you can easily distinguish. But at night with heavy rain, it is not so noticeable. ATC was great assisting us. The Jepps chart also does not emphasize the confusion in the area. Now I will draw my own division line mentally whenever I am approaching that intersection.

Synopsis

Air carrier flight crew reported they taxied past Taxiway B14 at night in the rain which is the last taxiway to access PHX Runway 26 and entered a maintenance ramp. The flight crew reported inadequate lighting, ambiguous taxi instructions and no advisory on the chart contributed to the event.

ACN: 2078449 *(6 of 50)*

Time / Day

Date : 202309
Local Time Of Day : 0001-0600

Place

Locale Reference.Airport : CLE.Airport
State Reference : OH
Altitude.MSL.Single Value : 400

Environment

Flight Conditions : VMC
Light : Night
Ceiling : CLR

Aircraft

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

Person : 1

Location Of Person.Aircraft : X
Location In Aircraft : Flight Deck
Reporter Organization : Air Carrier
Function.Flight Crew : Pilot Not Flying
Function.Flight Crew : First Officer
Qualification.Flight Crew : Air Transport Pilot (ATP)
Qualification.Flight Crew : Instrument
Qualification.Flight Crew : Multiengine
ASRS Report Number.Accession Number : 2078449
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 : Instructor
Function.Flight Crew : Pilot Flying
Qualification.Flight Crew : Air Transport Pilot (ATP)

Qualification.Flight Crew : Multiengine
Qualification.Flight Crew : Instrument
ASRS Report Number.Accession Number : 2078469
Human Factors : Situational Awareness
Human Factors : Communication Breakdown
Human Factors : Fatigue
Communication Breakdown.Party1 : Flight Crew
Communication Breakdown.Party2 : Flight Crew

Events

Anomaly.Deviation / Discrepancy - Procedural : Published Material / Policy
Anomaly.Inflight Event / Encounter : Unstabilized Approach
Anomaly.Inflight Event / Encounter : CFTT / CFIT
Detector.Automation : Aircraft Other Automation
Detector.Person : Flight Crew
When Detected : In-flight
Result.Flight Crew : Took Evasive Action

Assessments

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

Narrative: 1

After a long day of delays into and out of ZZZ, we were on approach at approximately XA00am for runway 6L into CLE. PIC was PF and I was PM. PF loaded and briefed the ILS 6L. I recall when PF briefed company page taking note of the second caution about unusually low fix altitudes as he read it as I had never seen that before. This was my first flight into CLE with about 160 hours in the plane mostly in the northeast. About 20 nm east of the field approach cleared us for the visual approach to 6L. PF turned us onto a downwind and continued a descent to 3000 that had been previously set from a clearance. He activated vectors to final and began calling for flaps 1, then flaps 2. PF turned right base and in the turn bugged 2000 for the FAF BOEEE and began a descent in FLCH while calling for flaps 3. While manipulating the flaps approach handed me off to tower and I made the appropriate radio calls. While talking to ATC, I believe the combination of the moment resulting from the flaps 3 change while FLCH descent was beginning led to more of a descent rate than expected. PF noticed this, and I believe selected FPA (Flight Path Angle) to adjust descent but the combination of descent rate and proximity to a tower led to an obstacle alert. There are numerous towers around that area. Looking at the track, we were actually on track to intercept around FUZED which has a segment leading up to it with an MSA of 3800 ft. and after a segment with MSA of 2900 ft. due to a tower around FUZED at 1649 ft. which is likely the tower eliciting the caution. I don't think either of us realized we were that far out due to the FMS having vectors to final loaded and degradation in our situational awareness. Once I audibly called "tower straight ahead" and pointed PF disconnected autopilot, reduced the descent rate, leveled off around 2300-2400, and turned further right away from the tower and to intercept final approach course while calling for gear down, flaps 5, speed Vapp, and landing checklist. Tower also at that time offered 6R instead of 6L and PF requested we accept. I queried if PF wanted me to load anything in and he said he was okay to fly visual. As we approached final approach

course I confirmed he was landing on 6R as I was concerned workload and lack of an approach could lead to further problems. He confirmed, and then asked me to load it in for him which I quickly did for lateral and vertical guidance. We were initially around I think a 1 1/4 dots low on GS once loaded in and upon looking outside had I believe 3 red on the VGSI. I called out "low" and PF responded "correcting," and quickly did so requiring no further action. We were configured at 1000 ft. and stable at 500 ft. without any excessive inputs but due to task saturation of loading the approach late I was distracted and missed the 1000 ft. call out and I think due to fatigue made the 500 ft. stable call out late (~400) but was monitoring the approach closely at that point as I recognized our slips in situational awareness on the approach and was ready to call go around if PF had not corrected and maintained lateral and vertical guidance. Suggestions: I need to constantly be vigilant assessing my fitness for duty and not allow external factors to impact my decision. Again, I did think I was FFD (fit for duty) at outset, but in hindsight maybe I wasn't. I am still learning at what point I need to call it. I need to grow in my confidence in speaking up, and challenge any decisions being made or actions requested of me that I think increase risk. I need to be more vigilant reviewing approach charts at unfamiliar airports, and take more time to understand why for example a caution note may be in the company pages. While the caution didn't directly speak to this situation, it could have clued me into looking more closely. Operations might consider adding to the caution note something regarding multiple intermediate segments in unusually close proximity to FAF with significantly higher MSAs due to towers in the area. Scheduling might consider the long-term ramifications of excessive hold times and issues with hotels, and implementing alternate strategies to ensure lower wait times and better assistance to crews during IROPS (Irregular Operations). Again, my responsibility to assess FFD and not let this influence me, but can still subconsciously impact decision making I think.

Narrative: 2

It was XA00 am and we were on approach into Cleveland cleared visual 6L. We were pretty tired due to the delays and both the FO (First Officer) and I agreed we were tired but focused on the approach. We were on a base to final turn just outside the final approach fix. When we received our visual clearance, we were at 3000 ft. The chart page states that we needed to configure early due to the low terrain. We were at flaps 2 at started descending 2000 ft. As stated we were outside the final approach fix which is at 2000 ft. I selected flaps 3 gear down. At this time the plane started to descend pretty steeply. I TCS'd it and increased power while trying to select altitude to level off. That is when we got a prox terrain caution. I immediately kicked off the autopilot and leveled off and increased power. There didn't seem to be a tower or anything out there that triggered it but we leveled off. ATC didn't say anything either. We think it had to do with the excessive descent rate that triggered the caution as the plane started a pretty steep descent. We continued the approach and received a side step to 6R. The flight concluded without any issues. Looking back the fix before the final showed 2300 ft. We were an out 2500 ft when the caution went off. Looking back, we could have stayed higher on the approach, however I was focused on configuring and making sure we were stable as it was a tight intercept. Fatigue was definitely a large factor to this. As stated we fixed the issue and maintained a safe and stable approach. Next time I will configure once we're established on the approach.

Synopsis

Air carrier flight crew reported a terrain obstacle alert while descending on the initial approach at night on a visual approach. The crew leveled out, then stabilized late on the approach, and continued the visual approach to landing.

ACN: 2070271 *(7 of 50)*

Time / Day

Date : 202312
Local Time Of Day : 0001-0600

Place

Locale Reference.ATC Facility : VIDF.ARTCC
State Reference : FO

Aircraft

Reference : X
ATC / Advisory.Center : VIDF
Aircraft Operator : Air Carrier
Make Model Name : Commercial Fixed Wing
Crew Size.Number Of Crew : 3
Operating Under FAR Part : Part 121
Flight Plan : IFR
Mission : Passenger
Flight Phase : Cruise

Component

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

Person

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 : 2070271
Human Factors : Confusion
Human Factors : Distraction
Human Factors : Human-Machine Interface
Human Factors : Troubleshooting
Human Factors : Workload

Events

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

Assessments

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

Contributing Factors / Situations : Software and Automation
Contributing Factors / Situations : Procedure
Contributing Factors / Situations : Manuals
Primary Problem : ATC Equipment / Nav Facility / Buildings

Narrative: 1

I was on this leg and had the first break. Upon returning to the flight deck after the 1st break I was briefed that the aircraft had GPS L, ADS-B OUT L, and TERR POS EICAS messages displayed since shortly after departure. This status continued throughout the entire flight. ADS-B and GPS failures are somewhat expected in the area of the country of Turkey as GPS jamming is typical in that part of the world so it seemed unusual that these messages appeared so early in the flight and lasted as long as they did. The RC and I communicated to Dispatch several times throughout the flight informing them of the status of our aircraft. We were repeatedly assured that these aircraft system outages are known by the company, common on these routes and "should return to normal status" soon. On a previous flight from DEL to ZZZ I was told that the company is working on new procedures for these types of events and that guidance and new procedures will be printed and released "soon". We contacted Dispatch and Maintenance on SATCOM and we were informed that there is currently no procedure or checklist in the books for pilots to correct these issues while in flight. We expressed concerns about our Oceanic Crossing and RVSM airspace without these systems working properly. We asked for fuel planning numbers to be run at 28000 ft. in order to make the crossing outside of RVSM airspace and those numbers didn't work for our weight to reach our destination ZZZ or a closer airport such as ZZZ1. A diversion to ZZZZ was recommended by Dispatch if we felt that we could not legally continue the flight. While it is true that we do not need GPS to make an oceanic crossing as the Dispatcher made clear to us and wrote "check your manuals", we did not have enough fuel to do so. We were sent a message that we should request our clearance with BIRD [FIR] making them aware of our reduced equipment status and if their workload and level of aircraft traffic allowed, we may be able to complete the Oceanic Crossing at our planned and dispatched altitude and Mach number. We were sent a message from Dispatch, we would be able to complete our flight as planned with permission from BIRD if workloads allowed. That permission was granted and we made our Oceanic Crossing as planned. I was back on my 2nd break by the time the oceanic clearance was requested and received. When I returned from my 2nd break we were in the middle of our crossing. The EICAS messages remained. GPS message did finally go away I believe once we were well over Canadian land for over an hour or so. The aircraft was able to use ground based VOR positioning to keep RNP and ANP within acceptable limits. I fly New Delhi trips at least once a month for a while now. I've seen these messages before but never this early in the flight and remain for so long during the flight. Perhaps there is something or someone or some entity that is GPS jamming aircraft in India, soon after departure. Who knows. I realize that it is expected near Turkey. I've also done a bit of flying to Tel Aviv and it's expected, but this was unusual. On a previous flight when this similar situation occurred we were strongly urged to reset the GPS circuit breakers in flight to avoid diverting to ZZZZ1. Really hard to say how to prevent it. Having an approved, written and legal procedure or checklist to handle this type of situation would be helpful though. Much better and reassuring than just getting messages from Dispatch that this is a known issue/occurrence and systems should come back "soon" before the oceanic crossing.

Synopsis

An Air Carrier First Officer GPS jamming in VIDF international airspace.

ACN: 2061468 *(8 of 50)*

Time / Day

Date : 202312

Place

Locale Reference.Airport : ZZZ.Airport
State Reference : US
Relative Position.Angle.Radial : 290
Relative Position.Distance.Nautical Miles : .5
Altitude.AGL.Single Value : 700

Environment

Flight Conditions : VMC
Light : Daylight
Ceiling : CLR

Aircraft

Reference : X
ATC / Advisory.Tower : ZZZ
Aircraft Operator : Personal
Make Model Name : Small Aircraft, High Wing, 1 Eng, Fixed Gear
Crew Size.Number Of Crew : 1
Operating Under FAR Part : Part 91
Flight Plan : None
Mission : Training
Flight Phase : Initial Climb
Route In Use : Visual Approach
Airspace.Class C : ZZZ

Component

Aircraft Component : Engine
Aircraft Reference : X
Problem : Malfunctioning

Person : 1

Location Of Person.Aircraft : X
Location In Aircraft : Flight Deck
Reporter Organization : Personal
Function.Flight Crew : Single Pilot
Function.Flight Crew : Pilot Flying
Qualification.Flight Crew : Multiengine
Qualification.Flight Crew : Air Transport Pilot (ATP)
Qualification.Flight Crew : Instrument
Experience.Flight Crew.Total : 3410
Experience.Flight Crew.Last 90 Days : 50
Experience.Flight Crew.Type : 6
ASRS Report Number.Accession Number : 2061468
Human Factors : Troubleshooting
Human Factors : Situational Awareness
Human Factors : Training / Qualification

Person : 2

Location Of Person.Aircraft : X
Function.Flight Crew : Instructor
Qualification.Flight Crew : Air Transport Pilot (ATP)
Qualification.Flight Crew : Flight Engineer
Qualification.Flight Crew : Multiengine
Qualification.Flight Crew : Instrument
Qualification.Flight Crew : Flight Instructor
Experience.Flight Crew.Total : 37719
Experience.Flight Crew.Last 90 Days : 12
Experience.Flight Crew.Type : 600
ASRS Report Number.Accession Number : 2061467
Human Factors : Troubleshooting
Human Factors : Situational Awareness
Human Factors : Training / Qualification

Events

Anomaly.Aircraft Equipment Problem : Critical
Anomaly.Deviation / Discrepancy - Procedural : Published Material / Policy
Anomaly.Deviation / Discrepancy - Procedural : FAR
Detector.Person : Flight Crew
When Detected : In-flight
Result.General : Maintenance Action
Result.Flight Crew : Returned To Departure Airport

Assessments

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

Narrative: 1

While conducting takeoffs and landings with an instructor in a recently purchased aircraft, we experienced a partial engine failure after turning left crosswind. We immediately [requested priority handling] and executed a turn to land opposite direction on the departure runway. The aircraft landed on the runway without any damage or incident and was able to exit onto the taxiway. Following the incident, the logbooks were re-examined and I was unable to locate an entry for a current 91.413 transponder check. The aircraft was purchased the day of the flight and the transponder check was missed somehow. In the future I will make sure to develop a more thorough process and list of items to check. The aircraft experienced a partial engine failure. I [requested priority], executed a 180 degree turn back and landed on Runway XXL. There were no injuries and no damage to the airplane other than the separated cylinder.

Narrative: 2

While conducting a training flight as a flight instructor with a highly competent student we experienced a partial engine failure while operating in the traffic pattern on the crosswind leg. We immediately [requested priority] with the Control Tower and returned to the departure runway landing in the opposite direction to normal traffic without incident. In reviewing the aircraft logbooks post incident it was discovered the transponder currency

check required by 14 CFR 91. 215 to operate in Class C airspace had been accidentally overlooked. This was a newly purchased aircraft by the student that had been purchased the date of the incident and more attention should have been paid reviewing the documentation. In the future a checklist will be used. Partial engine failure on crosswind leg of traffic pattern. [Requested priority] and returned opposite direction to the departure runway.

Synopsis

General aviation pilot and instructor reported an engine malfunction during initial climb after takeoff, while in the traffic pattern. The pilot returned to the departure airport and landed safely in the opposite direction with no aircraft damage.

ACN: 2059201 *(9 of 50)*

Time / Day

Date : 202312
Local Time Of Day : 0601-1200

Place

Locale Reference.ATC Facility : ZZZ.TRACON
State Reference : US
Altitude.MSL.Single Value : 12000

Environment

Flight Conditions : VMC
Light : Daylight

Aircraft

Reference : X
ATC / Advisory.TRACON : ZZZ
Aircraft Operator : Air Carrier
Make Model Name : Regional Jet 900 (CRJ900)
Crew Size.Number Of Crew : 2
Operating Under FAR Part : Part 121
Mission : Passenger
Flight Phase : Initial Climb
Flight Phase : Climb
Airspace.Class B : ZZZ

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 : 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 : 2059201
Human Factors : Troubleshooting
Human Factors : Situational Awareness

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 : Multiengine
Qualification.Flight Crew : Instrument
Qualification.Flight Crew : Air Transport Pilot (ATP)
ASRS Report Number.Accession Number : 2059202
Human Factors : Situational Awareness
Human Factors : Workload

Events

Anomaly.Aircraft Equipment Problem : Critical
Anomaly.Deviation - Altitude : Excursion From Assigned Altitude
Anomaly.Deviation - Speed : All Types
Anomaly.Deviation - Track / Heading : All Types
Anomaly.Deviation / Discrepancy - Procedural : Clearance
Anomaly.Ground Event / Encounter : Other / Unknown
Detector.Automation : Aircraft Other Automation
Detector.Person : Flight Crew
When Detected : Taxi
Result.Flight Crew : Landed in Emergency Condition
Result.Flight Crew : Returned To Departure Airport
Result.Flight Crew : Diverted

Assessments

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

Narrative: 1

While taxing we had an intermittent Electronic Flight Instrument System (EFIS) comp mon fault. We slew the heading to fix the problem. The message would disappear for a length of time then reappear. We thought it was due to normal ground interface. After departure and during the normal clime out we noticed the heading and map information was inaccurate. Due to the inaccurate information. We were unable to use the autopilot and First Officer hand flew while I reference the QRH. During the trouble shooting we had slight speed and altitude deviations with quick corrections. We were unable to trouble shoot the problem and we [requested priority]. ATC gave us gyro vectors to back to the field. At one point it look liked my PDF was giving accurate information, and I took the controls from the First Officer (FO) and landed at the airport without any further incident. Suggestions: I′m not sure what the cause was, however after this situation I realize that EFIS Comp Mon can be more than a nuisance message. I will make sure I will give it greater attention in the future. As I will with all nuances messages.

Narrative: 2

While at the gate, EFIS comp mon Cockpit Access Security System (CASS) message appeared. We assumed this was due to the building in the surrounding area, and continued on with normal operations. We continued our taxi and the CASS message distinguished. During our taxi, we continued to receive intermittent EFIS comp mon CASS messages. It would appear momentarily and then extinguish for an extended amount of time, then reappear. As we were cleared onto the runway, we slewed the heading and continued on with with takeoff. The message was still intermittent. I incorrectly believed that because EFIS comp mon was classified as a nuisance message in the manual, we were allowed to depart with the intermittent message. However, I acknowledge, after

reading manual section X.X.X (EFIC Comp Mon Magnetic Heading Disturbances Emanating During Ground Operations) that I was incorrect on my assumption. On departure, ATC gave us radar vectors. They soon contacted us and asked if we needed assistance, and informed us that they assigned us a heading and we were not adhering to it. We thought we were, but quickly realized there was an issue with both the captain and I's HSI's. I took radios and controls and instructed the Captain to reference the QRH for EFIS comp mon. As both HSI's were inoperative, I hand flew. During my hand flying, there were several altitude deviations approximately plus or minus 100 feet, with a quick response to correct. ATC asked if we would like gyro vectors, to which we accepted. We requested to return to ZZZ and prepared for our diversion. We were instructed to descend to 9,000 ft, and I mistakenly overspeed the FAR requiring 250 knots under 10,000 ft. I quickly corrected my mistake. I soon [requested priority] once I realized both the captains and I's task saturation that ultimately caused several airspeed and altitude deviations. After the Captain troubleshooted, he determined that his side seemed most accurate and conducted the approach via hand flying. He had a smooth landing and we did not require further assistance. Suggestions: The manual states "If the caution message remains and it is known that the aircraft has been removed from all sources of magnetic anomalies, a system failure has occurred." I understand that even though com mon fault is classified as a nuisance message, it doesn't mean we can depart with an intermittent message. This was a tremendous learning moment for myself and I believe I am a better pilot because of it. Because I have taken the time to sit down and read what nuisance messages are, I am now equipped to handle a situation like this in the further. In the future, I will ensure there is no intermittent CASS message before departing.

Synopsis

Air carrier flight crew reported aircraft navigational system comparison monitor showing an abnormal situation. Flight crew returned to departure airport.

ACN: 2042854 *(10 of 50)*

Time / Day

Date : 202310
Local Time Of Day : 0601-1200

Place

Locale Reference.Airport : STL.Airport
State Reference : MO
Altitude.AGL.Single Value : 0

Environment

Light : Daylight

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
Flight Phase : Taxi

Person

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 : Air Transport Pilot (ATP)
Qualification.Flight Crew : Instrument
ASRS Report Number.Accession Number : 2042854
Human Factors : Confusion
Human Factors : Situational Awareness
Human Factors : Workload
Human Factors : Communication Breakdown
Communication Breakdown.Party1 : Flight Crew
Communication Breakdown.Party2 : ATC

Events

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

Assessments

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

Narrative: 1

STL Ground Metering/Ground initially cleared us to taxi to Runway 12L via [taxiway] D, hold short Runway 06. Approaching Runway 06, Ground cleared us onto Runway 06, cross Runway 12R, hold short Runway 12L. Runway 06 does not intersect Runway 12R but passes behind it. On Runway 06, Ground cleared us to taxi F, S, hold short Runway 12L, switch to Tower. This clearance was partially blocked and Ground repeated it. At the same time, we were running the before takeoff checklist. Holding short of Runway 12L on [taxiway] S, Tower gave us takeoff clearance and we departed without incident. After departure, my Captain re-reviewed the taxi charts and became concerned that we might have crossed Runway 12L, hold short line on Runway 06 prior to receiving the Ground clearance to continue past this hold short line. We were not aware of a hold short line on Runway 06 for Runway 12L. My impression was that we most likely received the clearance to continue at or before this hold short line, but am not absolutely positive. ATC did not mention that we did anything wrong. A note in the company information page alerting pilots to the issue and a hot spot on the airport diagram may be helpful, especially during periods of additive conditions such as frequency congestion, rapid airport reconfiguration of open and closed runways and taxiways, men and equipment operating very near the taxiways and runways. It may help if ATC reinforces runway hold short lines on active runways during this time.

Synopsis

Air carrier pilot reported a possible runway incursion while taxiing on Runway 6 with instructions to hold short of Runway 12L. Pilot recommends a "Hot Spot" flag/designation for this location on the airport diagram to warn of potential for incursion.

ACN: 2034107 *(11 of 50)*

Time / Day

Date : 202309
Local Time Of Day : 1801-2400

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 : FBO
Make Model Name : SR20
Crew Size.Number Of Crew : 1
Operating Under FAR Part : Part 91
Flight Plan : None
Mission : Training
Flight Phase : Landing
Route In Use : Visual Approach

Component

Aircraft Component : Engine
Aircraft Reference : X
Problem : Malfunctioning

Person

Location Of Person.Aircraft : X
Location In Aircraft : Flight Deck
Reporter Organization : FBO
Function.Flight Crew : Instructor
Qualification.Flight Crew : Instrument
Qualification.Flight Crew : Multiengine
Qualification.Flight Crew : Flight Instructor
Qualification.Flight Crew : Air Transport Pilot (ATP)
Experience.Flight Crew.Total : 2009
Experience.Flight Crew.Last 90 Days : 146
Experience.Flight Crew.Type : 184
ASRS Report Number.Accession Number : 2034107
Human Factors : Training / Qualification
Human Factors : Troubleshooting
Human Factors : Situational Awareness

Events

Anomaly.Aircraft Equipment Problem : Critical
Anomaly.Deviation / Discrepancy - Procedural : Published Material / Policy
Anomaly.Ground Incursion : Runway
Anomaly.Ground Event / Encounter : Loss Of Aircraft Control
Detector.Automation : Aircraft Other Automation
Detector.Person : Flight Crew
When Detected : In-flight
Result.General : Maintenance Action
Result.Flight Crew : Overcame Equipment Problem
Result.Air Traffic Control : Provided Assistance

Assessments

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

Narrative: 1

10 minutes prior to landing at ZZZ a CHT CAS message appeared for CHT on Cylinder #1. The checklist called to reduce power, increase airspeed, and increase mixture. The CHT CAS message disappeared. I kept the mixture at the new setting while returning to ZZZ to land. After landing on [Runway] XXL at ZZZ my student rolled down the runway with the power at idle. Approaching Taxiway 1 and turning to exit, my student applied throttle to complete the turn and exit the runway at [Taxiway] 1. The engine started coughing and died and we rolled just past the runway edge marking and came to a stop well before the hold-short lines. I radioed the Tower Controller to let him know that our engine died - he replied that he understood and asked that we get out and push the airplane past the hold-short line to exit the airplane. I also heard the Tower Controller tell the aircraft on final to sidestep to the parallel runway for landing. The controller also told a business jet that their departure on [Runway] XXL would be slightly delayed due to a disabled aircraft still on the runway. After these radio calls I informed the Tower Controller that we would be getting out to push the aircraft past the hold-short line. As the instructor I exited the aircraft and pushed while I instructed my student to steer the aircraft. It took an estimated 3 minutes to push the airplane past the hold-short line. Once past the hold-short line I boarded the aircraft and attempted a hot start procedure - which was successful with a leaner than normal mixture setting and received clearance to taxi to parking without further problems. Our maintenance provider determined during their engine run that the engine will stall when advancing the throttle from idle with a full rich mixture, boost pump on, and air conditioning on. They also advised that with normal ground leaning that the engine appears to be running normally. Cirrus's SR20 POH does not have a high altitude ground leaning procedure. Their start procedure calls for the mixture to be set to full rich which is not ideal for operating at higher altitudes especially in ZZZ1. This incident occurred after landing where the throttle was at idle during the after landing roll-out, and because of the CHT CAS message 10 minutes prior to landing the mixture was more rich than normal - but not full rich. I believe that the student's application of power to exit the runway may have been too abrupt and with the throttle at idle with a high mixture setting, may have caused this engine failure.

Synopsis

SR-20 flight Instructor reported a message that stated a cylinder problem appeared prior to landing but after following the checklist, the message was gone. Upon roll-out, the engine failed and the aircraft stopped partially on the runway. The flight Instructor and

Student pilot coordinated pushing the aircraft off the runway, restarted the engine, and taxied to parking.

ACN: 2031812 *(12 of 50)*

Time / Day

Date : 202309
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
Aircraft Operator : Air Carrier
Make Model Name : B737-700
Crew Size.Number Of Crew : 2
Operating Under FAR Part : Part 121
Flight Plan : IFR
Mission : Passenger
Flight Phase : Taxi

Component

Aircraft Component : 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 : 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 : 2031812

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 : Instrument
Qualification.Flight Crew : Multiengine
Experience.Flight Crew.Last 90 Days : 143

Experience.Flight Crew.Type : 760
ASRS Report Number.Accession Number : 2031824

Events

Anomaly.Aircraft Equipment Problem : Critical
Anomaly.Deviation / Discrepancy - Procedural : Published Material / Policy
Detector.Person : Flight Crew
When Detected : Taxi
Result.General : Maintenance Action
Result.Flight Crew : Returned To Gate
Result.Flight Crew : Overcame Equipment Problem

Assessments

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

Narrative: 1

We operated this aircraft from ZZZ2 - ZZZ1 followed by ZZZ1 - ZZZ. We pushed from [Gate] XXX in ZZZ and disconnected. We then attempted to start the Number 2 Engine. The N2 peaked at 16% so the start was aborted. Fuel was never introduced. Ran aborted engine start QRC/QRH. We then attempted a second start on the #2 Engine this time with both my eyes and the FO (First Officer) watching closely and verifying switch positions. Again, the N2 peaked at 16% with slow acceleration. The manifold gauge showed sufficient air on both sides of the isolation valve. The packs were verified off. We terminated this start as well. Operations were notified that we would be returning to the gate. As an alternate to waiting for a tug we attempted to start the Number 1 Engine so that we could taxi back to the gate. Coincidentally, when the First Officer placed the start switch to "ground" on the number one engine the "ENGINE OVERHEAT" for the Number 2 Engine illuminated. I commanded the First Officer to abort the start - fuel had not been introduced. I asked for the QRH/QRC for engine overheat. Obviously the QRC assumes we are in flight. Regardless, it directed us to fire extinguishing agent followed by isolating bleed air. The overheat light extinguished after bleed air was removed. Considerable use of our company ADM (Aeronautical Decision Making) model directed our actions quickly back on track. Staying within the QRH firing both extinguishing bottles into the engine seemed unnecessary albeit a required step to comply with Company procedures. Company training allows deviation although emphasizes to accept no unnecessary risk. To not fire bottles increased risk. I thank our training for that.

Narrative: 2

We operated this aircraft with no issues on our first two legs. We pushed off Gate XXX in ZZZ and disconnected from the ground crew as we started Engine #2. During this first attempt to start Engine #2, I noticed that the N2 never reached above 16%, so the start was aborted. Fuel was never introduced. We then proceeded to run the aborted engine start QRC/QRH. After the checklist was preformed, we decided to try another engine start on Engine #2. We verified switch position and bleeds were configured correctly and attempted the start. Yet again, a slow start and N2 did not rise above 16%. We proceeded to conduct the Aborted Engine Start again, leading us to run the aborted engine start QRC/QRH Checklist. We noted that the manifold gauge on the bleed air supply showed sufficient pressure. After we finished the QRC/QRH Checklist, we called Operations informing them we needed to return to the gate. While waiting, we discussed the

possibility of starting our #1 Engine as an option to taxi to back to the gate. As we started Engine #1, we received an ENGINE OVERHEAT caution on the #2 Engine. The Captain told me to abort the #1 Engine start. Fuel had not been introduced. We then conducted the QRC/QRH Checklist for ENGINE OVERHEAT. Regarding the QRC, it assumes we were inflight thus taking us to the QRH items for shutting the engine down and using the fire extinguishing agent and closing the bleeds for the #2 Engine. The ENGINE OVERHEAT light was extinguished after the bleed air was removed. We worked well together to come back on track after falling behind. Using our aeronautical decision-making method we continued to work through the situation presented to us. Remaining and complying within the QRH firing both extinguishing bottles into the #2 Engine seemed unnecessary. However, it was a required step to comply with Company procedures. Training allows deviation in such an event, but we are also emphasizing to accept no unnecessary risk while operating the aircraft.

Synopsis

B737-700 flight crew reported an engine overheat after starting up Engine #1 following two aborted start attempts on Engine #2 while on the ground. Although the QRH deemed firing both extinguishing bottles into the affected engine unnecessary, the flight crew′s company procedures had it as a required step.

ACN: 2019819 *(13 of 50)*

Time / Day

Date : 202307
Local Time Of Day : 1801-2400

Place

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

Environment

Flight Conditions : VMC
Light : Daylight
Ceiling : CLR

Aircraft

Reference : X
ATC / Advisory.TRACON : ZZZ
Aircraft Operator : Air Carrier
Make Model Name : Regional Jet 200 ER/LR (CRJ200)
Crew Size.Number Of Crew : 2
Operating Under FAR Part : Part 121
Flight Plan : IFR
Mission : Passenger
Nav In Use.Localizer/Glideslope/ILS : ILSXXL
Flight Phase : Climb
Route In Use.SID : ZZZZZ

Component

Aircraft Component : Pneumatic Ducting
Aircraft Reference : X
Problem : Malfunctioning

Person

Location Of Person.Aircraft : X
Location In Aircraft : Flight Deck
Reporter Organization : Air Carrier
Function.Flight Crew : Check Pilot
Function.Flight Crew : Captain
Qualification.Flight Crew : Air Transport Pilot (ATP)
Qualification.Flight Crew : Instrument
Qualification.Flight Crew : Multiengine
ASRS Report Number.Accession Number : 2019819
Human Factors : Troubleshooting
Human Factors : Time Pressure
Human Factors : Communication Breakdown
Human Factors : Situational Awareness
Communication Breakdown.Party1 : Flight Crew
Communication Breakdown.Party2 : Flight Crew

Events

Anomaly.Aircraft Equipment Problem : Critical
Anomaly.Deviation / Discrepancy - Procedural : Published Material / Policy
Detector.Automation : Aircraft Other Automation
Detector.Person : Flight Crew
When Detected : In-flight
Result.Flight Crew : Overcame Equipment Problem
Result.Air Traffic Control : Provided Assistance

Assessments

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

Narrative: 1

This event took place during First Officer (FO) new hire IOE. The Captain/Check Airman Person A was Pilot Flying and the FO Person B was Pilot Monitoring. We also had a Company pilot jump seating in the flight deck who was commuting. During climb out on the ZZZZZ SID, the R BLEED DUCT warning message occurred around 12000 ft. MSL. The Captain said cancel/identify. FO responded and read EICAS. Captain stated "I have the radios and controls, reference the QRH." We were not able to run the QRH fast enough and because the R BLEED DUCT warning stayed on for more than 30 seconds, the pressurization system automatically shut off both L/R bleed valves which resulted in a loss of pressurization capabilities. We were around 14000 ft. MSL when both Pressure (Regulating Shut Off Valve) PRSOVs L/R shut off. The Captain [requested priority handling] immediately following this event and initiated a descent to 10000 ft. MSL. The FO completed the QRH at 10000 ft. MSL, which following the QRH the airplane was then configured with EMER DEPRESS SWITCH engaged and PACKS OFF and ram air valve opened for unpressurized flight. We asked for a little lower to 8000 ft. and the cabin altitude caution message appeared because the cabin altitude was between 8500 - 10000 ft. This was associated and FO canceled the cabin altitude message which extinguished upon reaching 8000 ft. The passenger masks never dropped because the cabin altitude never went above 10000 ft. (masks drop automatically at 14000 +- 500). Captain told ATC "we need to go back to ZZZ and that the checklists were done and the airplane was in a safe configuration but had no pressurization. We do not need assistance at this time other than returning back to ZZZ" Captain told FO to set up the cockpit for visual XXL backed up by ILS. Captain called (Flight Attendant 1) (FA1) Person C and told them the airplane was safe and that landing would be normal but couldn't continue to destination. Captain informed passengers "Airplane is safe and all checklists are completed. We lost pressurization and we were not high enough where we would need masks, this altitude is safe without pressurization but we are going to return to ZZZ for a normal landing. Talk to you soon with an update, thanks." ATC gave us a quick vector and Captain informed ATC we need to get a revector to finish our normal checklists and briefings for approach. After completing a revector and finishing approach briefings (during which we discovered the fuel gauges were dashed out, after taking off at 73400 lbs. we concluded that the 72000 lb. speed cards would be adequate and based on distances and speeds at that weight) we then proceeded to land and taxi to the gate. ATC had fire trucks ready per their protocols which followed Aircraft X back to the gate. After the shutdown checklist was complete, the Captain went into the cabin and made an announcement to passengers with further details and they seemed appreciative and comfortable. It was not until after the flight had ended where I saw 2 things I should have done differently. The first thing I should have done

differently is to call for the checklist, I failed to realize this was an item on the checklist and only ran the QRH. As Captain/Check Airman I should have also recognized the need to transfer controls and perhaps run the QRH myself, especially because it was my FOs second time doing Pilot Monitoring (PM) duties during IOE. The QRH is a difficult checklist because it needs to be completed within 30 seconds otherwise this situation occurs with automatic complete shutdown of pressurization. I still believe that altogether the situation was handled safely but I do see areas for improvement for the QRH. I feel like I learned a valuable lesson myself. Suggestions are the L/R bleed duct item is the only item that is not transferred verbatim and boxed inside the QRH as well. Every other item has the same language verbatim (copied in the QRH) and then is elaborated in the QRH as well. However, the L/R Bleed Duct does not have this necessary detail in the QRH. The L/R Bleed Duct QRH item is a special item and situation because it is time limited (only 30 seconds to correct or else both PRSOVs shut off automatically). I have 2 very important suggestions. First and I believe most important, the L/R bleed duct should be copied verbatim and boxed like every other electrical item inside the QRH and then elaborated thereafter. The QRH version is highly unlikely to be able to finish in 30 seconds and it does not read as easily as the electrical checklist. If this was changed, future pilots in similar situations who call for the QRH by mistake, would still have the exact wording and reference as the electrical checklist, boxed and easy to read and should be able to finish in a timely manner. Second, this item should honestly be a required memory item and an immediate action item and boxed in on the electrical checklist as well because of the timely nature. But the QRH should be fixed first in my opinion to match the way every other electrical checklist is written and copied into the QRH.

Synopsis

CRJ-200 Captain reported a right bleed duct warning message during climb out while operating a training flight. The Captain performed the checklist procedure and returned to the departure airport for a safe landing.

ACN: 2018511 *(14 of 50)*

Time / Day

Date : 202307
Local Time Of Day : 1201-1800

Place

Locale Reference.Airport : ZZZ.Airport
State Reference : US
Relative Position.Angle.Radial : 15
Relative Position.Distance.Nautical Miles : 6
Altitude.MSL.Single Value : 7500

Environment

Flight Conditions : VMC
Weather Elements / Visibility.Visibility : 10
Light : Daylight
Ceiling.Single Value : 12000

Aircraft

Reference : X
ATC / Advisory.Tower : ZZZ
Aircraft Operator : Personal
Make Model Name : Skyhawk 172/Cutlass 172
Crew Size.Number Of Crew : 1
Operating Under FAR Part : Part 91
Flight Plan : VFR
Mission : Personal
Flight Phase : Cruise
Route In Use : Direct
Airspace.Class D : ZZZ

Component

Aircraft Component : Reciprocating Engine Assembly
Aircraft Reference : X
Problem : Malfunctioning

Person

Location Of Person.Aircraft : X
Location In Aircraft : Flight Deck
Reporter Organization : Personal
Function.Flight Crew : Pilot Flying
Function.Flight Crew : Single Pilot
Qualification.Flight Crew : Private
Experience.Flight Crew.Total : 541
Experience.Flight Crew.Last 90 Days : 42
Experience.Flight Crew.Type : 541
ASRS Report Number.Accession Number : 2018511
Human Factors : Distraction
Human Factors : Time Pressure

Human Factors : Troubleshooting
Human Factors : Situational Awareness

Events

Anomaly.Aircraft Equipment Problem : Critical
Anomaly.Deviation / Discrepancy - Procedural : Published Material / Policy
Anomaly.Inflight Event / Encounter : Fuel Issue
Detector.Person : Flight Crew
When Detected : In-flight
Result.Flight Crew : Diverted
Result.Flight Crew : Landed As Precaution
Result.Flight Crew : Requested ATC Assistance / Clarification
Result.Air Traffic Control : Provided Assistance

Assessments

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

Narrative: 1

I have flown 172s for the last 10 years. I recently purchased a 172G model. Placarded on the fuel selector is a note stating that pilots are to switch to a single tank from "both" after leveling off above 5000 feet. Almost no Cessna pilots do it, myself included until today. The general feeling around the community is that it is not important and that it was a political stunt by Cessna years ago while transitioning to Lycoming engines. I knew about the issue when I purchased the aircraft but don't fly often at higher altitudes and so didn't have it top of mind. I had looked into it at the time and found that it wasn't important based on community comments and so I forgot all about it. I was flying from ZZZ1 back to ZZZ2. As I was flying past ZZZ I noticed a temporary drop in engine RPMs. After about 30 seconds I lost engine power completely but then it would surge to full power and back to zero. Engine power continued to come and go. I followed the checklist, advised ATC and landed at ZZZ without issue. The issue was that the standard loss of engine checklist doesn't follow the required remediation for the issue, so pilots are not able to regain power. The published remediation requires you to fly on one tank for one minute, and then switch to the other tank, but this is not standard practice. The other issue is that the placard is down by the fuel selector, which is not something you look at often, so the issue is out of mind and often forgotten. Contributing factors are: 1. The Cessna pilot community doesn't see the issue as real. 2. The emergency checklist doesn't deal with the issue. 3. The placard is on the fuel selector where nobody is looking in flight. Other comments are that I found myself very distracted in taxiing back to the ramp. Controllers should realize that a pilot is not in his/her normal state of mind after an incident like this and offer more support for taxi at an airfield they are probably not familiar with nor have taxi diagrams ready, etc. A progressive taxi should be standard practice after a situation like this. Its easy to ask for, but I felt the controller was not aware of the compromised mental state a pilot might be in after a flight like this.

Synopsis

C172 pilot reported engine power fluctuations during cruise required a diversion to a nearby airport. Pilot stated the checklist does not provide a procedure for this problem and the placement of the placard for switching fuel tanks is in a location that is difficult to view.

ACN: 2016795 *(15 of 50)*

Time / Day

Date : 202307
Local Time Of Day : 1201-1800

Place

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

Environment

Weather Elements / Visibility.Visibility : 20
Work Environment Factor : Temperature - Extreme
Ceiling.Single Value : 12000
RVR.Single Value : 3000

Aircraft

Reference : X
ATC / Advisory.UNICOM : ZZZ
Aircraft Operator : Personal
Make Model Name : Navion
Crew Size.Number Of Crew : 1
Operating Under FAR Part : Part 91
Flight Plan : None
Mission : Personal
Flight Phase : Landing
Airspace.Class E : ZZZ

Component

Aircraft Component : Landing Gear
Aircraft Reference : X
Problem : Improperly Operated

Person

Location Of Person.Aircraft : X
Location In Aircraft : Flight Deck
Reporter Organization : Personal
Function.Flight Crew : Single Pilot
Function.Flight Crew : Pilot Flying
Qualification.Flight Crew : Private
Experience.Flight Crew.Total : 1496
Experience.Flight Crew.Last 90 Days : 3
Experience.Flight Crew.Type : 692
ASRS Report Number.Accession Number : 2016795
Human Factors : Situational Awareness
Human Factors : Troubleshooting
Human Factors : Distraction

Events

Anomaly.Aircraft Equipment Problem : Critical
Anomaly.Ground Event / Encounter : Loss Of Aircraft Control
Anomaly.Ground Event / Encounter : Gear Up Landing
Detector.Person : Flight Crew
When Detected : In-flight
Result.General : Evacuated
Result.Aircraft : Aircraft Damaged

Assessments

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

Narrative: 1

I cranked up the Navion to do a check on the newly installed airspeed indicator. The run-up was uneventful and I departed from Runway XX due to unusually westerly winds. The day was HOT, above 90 degrees, high humidity, and a density altitude above 1500 ft.; I left the canopy open to get air circulation. I normally do a once around the pattern with a touch-and-go to test all systems and if all checks out, I may go for a leisurely flight up at a cooler level. On doing a left downwind approach procedure I noticed the gear horn was not audible due to the noise from the open canopy. I struggled with it until I felt I could barely hear it. I completed the rest of my prelanding check and set up for a 65-kt., full flap approach to landing. Everything was just right, airspeed indicator was dead on 65 kt. However, I did not check on the 3 green lights, trusting that the horn was not making noise. The plane landed gently just above stall but made a scraping sound - my heart sank! I turned fuel boost pump, fuel valve selector, electricals and breakers all off. Complete silence following. Airport personnel assisted in raising the plane high enough to drop the gear and subsequently tug the aircraft to its hangar. Airport Authority Representative along with an FAA Safety Inspector showed up to check on me, airplane and records. Needless to say, I ran this video through my brain over and over and I feel I know why this happened. The almighty checklist needs to be followed. Had I been returning from a more involved flight, I would have pressed the button on the Avidyne to show the prelanding checklist. Do not focus on just one instrument - in my case the airspeed indicator, but rather scan the panel and always look for the infernal THREE GREEN LIGHTS. Follow recommended routines without variance. The old manual says, "On downwind pull the throttle until you hear the horn, then push forward to quiet the horn and lower the gear." That is the complete procedure just for the gear. I had modified that years ago and what I would do is slow the airplane under 87 kt., max flap and max gear speed, and then lower the gear. This eliminated the blaring horn. Hearing the horn is important! Why? Because if you don't hear the horn then you don't have safety redundancy, the blaring horn tells you have a problem, no "three green lights" tells you have a problem! As I slowed down, the horn never went off, even with the throttle at idle. The horn failed! The checklist failed! The instrument scan failed! See what's there and not what you want to be there! Thinking back at the whole thing, I don't think that horn ever blew. I wanted it to blow, the way it should, but I don't think it did, even on the ground with a dead engine and wheels retracted, dead silence!

Synopsis

Navion pilot reported landing on the runway gear up and was assisted by airport personnel in tugging the aircraft to the hangar. It was a hot day and the pilot reported not following

the checklist procedures properly, and did not confirm the landing gear was down and locked.

ACN: 1993175 *(16 of 50)*

Time / Day

Date : 202304
Local Time Of Day : 1201-1800

Place

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

Environment

Flight Conditions : VMC
Light : Daylight

Aircraft

Reference : X
ATC / Advisory.Tower : ZZZ
Aircraft Operator : 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 : Landing
Route In Use : Vectors

Component

Aircraft Component : Antiskid 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 Not Flying
Function.Flight Crew : Captain
Qualification.Flight Crew : Air Transport Pilot (ATP)
Qualification.Flight Crew : Instrument
Qualification.Flight Crew : Multiengine
Experience.Flight Crew.Total : 15000
Experience.Flight Crew.Last 90 Days : 198
Experience.Flight Crew.Type : 7382
ASRS Report Number.Accession Number : 1993175
Human Factors : Troubleshooting
Human Factors : Communication Breakdown
Communication Breakdown.Party1 : Flight Crew
Communication Breakdown.Party2 : Maintenance

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)
Experience.Flight Crew.Total : 2017
Experience.Flight Crew.Last 90 Days : 154
Experience.Flight Crew.Type : 2017
ASRS Report Number.Accession Number : 1993211
Human Factors : Troubleshooting
Human Factors : Human-Machine Interface

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 : Maintenance Action
Result.General : Flight Cancelled / Delayed
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

Prior to takeoff in ZZZ1, THE ANTI SKID INOP light was not illuminated. After takeoff from Runway XXR in ZZZ, First Officer (FO) requested gear up and I noticed the ANTI SKID INOP light illuminated. Once the after takeoff checklist was called and the gear handle was placed to the off position, the anti-skid light extinguished. At cruise, the auto brakes were selected to 1, 2, and 3 to check for proper operation due to previous write ups and the AUTO BRAKE DISARM light illuminated and did not go away. Previous write-ups from today and Day 0 confirmed that this was a chronic issue with the auto brakes but did not reference the anti-skid system being inop. The previous write up from today also referenced a transducer #2 fault. The QRH was referenced regarding both ANTI SKID INOP and AUTO BRAKE DISARM. With the possibility of another transducer fault or a possible ANTI SKID failure, as a crew we discussed our options with an ANTI SKID failure and felt continuing to ZZZ was okay with good weather, long runways and a lighter weight and speed on landing. Dispatch and Maintenance Control were contacted to discuss the possibility of an anti skid system failure. Maintenance Control agreed with the Captain that there is a distinct possibility that the anti skid system is not working given the recent history of write ups along with the ANTI SKID INOP light illuminating now. We decided the

ANTI SKID INOP QRH took precedent over the AUTO BRAKE DISARM QRH and planned for the possibility of an ANTI SKID INOP with no auto brakes on landing. My additional thoughts were that if the gear handle was placed to the down position on arrival and the ANTI SKID INOP light returned, we would be prepared. Further, with the two previous write ups including a transducer fault, it was a distinct possibility that the anti skid system was INOP. With the possibility of hot brakes, blown tires and a loss of directional control after landing without anti skid, it was decided that we would [request priority handling], continue to ZZZ and request to land on the longest Runway XX in ZZZ. The flight attendants including Purser Person A were then brought into the loop and were given information and a briefing. At this point we had 90 minutes until landing and we discussed that we would prepare the cabin for a [priority] landing and possible evacuation when we had 45 minutes prior to landing. At 45 minutes prior to landing, I made a PA to the passengers explaining the mechanical issue we were experiencing and that the flight attendants would be preparing the cabin for a [priority] landing in addition to assuring them that we fully expected this landing to be normal but we are going to prepare for a [priority] landing as a precaution. FO and I reviewed the ANTI SKID INOP QRH and performed a thorough threat briefing to include a flaps 40 landing, the non-normal landing distance chart, an early stable approach, Captain PA announcements, touching down in the touchdown zone, manual speed brake deployment, use of max reverse thrust longer than normal, braking according to the QRH and the possibility of blown tires and directional control issues if the main wheels lock up. FO did a great job managing the threats, slowed and became stable early for the approach. At 500 ft. and approximately 30 seconds prior to landing, I made the PA, brace, brace, brace. FO flew a stable descent and touched down on center line and in the touch down zone where I manually deployed the speed brakes. Maximum reverse thrust was selected, and light steady braking was used after the nose wheel touched down. I assumed command of the aircraft at about 80 kts. and kept maximum reverse thrust in until around 40-50 kts. We vacated the Runway at XX and taxied on to X where the PA, remain seated, remain seated was made. Airport Rescue and Firefighting (ARFF) responders met the aircraft and confirmed all looks normal and would follow us to the gate and check the brake temps after we parked. Brake temps were confirmed all normal after parking. The entire crew did an outstanding job preparing and executing on this situation. In the end we were able to manage the threats properly, execute a safe operation by minimizing any errors and prepared for the possibility of a non-normal landing according to our training. After we parked, Maintenance reviewed the faults and again came up with a transducer #2 fault. They assured me anti skid was indeed operative and decided to MEL the auto brake system for our next flight from ZZZ-ZZZ2 without any lengthy investigative work on the ANTI SKID INOP issues. I agreed to take the aircraft with the auto brakes MELed. On the next flight, once again the ANTI SKID INOP light was extinguished on departure but illuminated again when the gear was requested up and extinguished when the gear handle was placed to off. On this flight we suspected the anti skid was working after the assurance from ZZZ Maintenance and continued with the AUTO BRAKE DISARM MEL. Landing in ZZZ2 was uneventful. However, I believe this aircraft needs a more thorough review for ANTI SKID INOP issues given the two write ups today for ANTI SKID INOP light illuminating after takeoff. Finally, the FOM was referenced for required reports but we never did call the Chief Pilot before continuing our next flight from ZZZ to ZZZ2 due to time. However, we self-assessed as a crew and both felt comfortable continuing our day and final leg of the trip.

Narrative: 2

Prior to takeoff in ZZZ1, THE ANTI SKID INOP light was not illuminated. After takeoff from Runway XXR in ZZZ1, pilot flying (PF) requested gear up and pilot monitoring (PM) noticed the ANTI SKID INOP light illuminate. Once the after takeoff checklist was called and the gear handle was placed to the off position, the anti-skid light extinguished. At cruise, the

auto brakes were selected to 1, 2, and 3 to check for proper operation due to previous write ups and the AUTO BRAKE DISARM light illuminated and did not go away. The QRH was referenced regarding both ANTI SKID INOP and AUTO BRAKE DISARM. With the possibility of a possible ANTI SKID failure, as a crew we discussed our options with an anti skid failure and felt continuing to ZZZ was okay with good weather, long runways and a lighter weight and speed on landing. Dispatch and Maintenance Control were contacted to discuss the possibility of an anti skid system failure. Maintenance Control agreed with the Captain that there is a distinct possibility that the anti skid system could be INOP. We decided the ANTI SKID INOP QRH took precedent over the AUTO BRAKE DISARM QRH and planned for the possibility of an ANTI SKID INOP with no auto brakes on landing. Additional thoughts were that if the gear handle was placed to the down position on arrival and the ANTI SKID INOP light returned, we would be prepared. With the possibility of hot brakes, blown tires and a loss of control without anti skid, it was decided that we would [request priority handling], continue to ZZZ and request to land on the longest Runway XX in ZZZ. The flight attendants were then brought into the loop and were given information and a briefing. At this point we had 90 minutes until landing and we discussed that we would prepare the cabin for a [priority] landing and possible evacuation when we had 45 minutes prior to landing. At 45 minutes prior to landing, the Captain made a PA to the passengers explaining the mechanical issue we were experiencing and that the flight attendants would be preparing the cabin for a [priority] landing in addition to assuring them that we fully expected this landing to be normal but we are going to prepare for a [priority] landing. PF and PM reviewed the ANTI SKID INOP QRH and performed a thorough threat briefing to include a flaps 40 landing, the non-normal landing distance chart, an early stable approach, PA announcements, touching down in the touchdown zone, manual speed brake deployment, use of max reverse thrust longer than normal, braking according to the QRH and the possibility of blown tires and directional control issues if the main wheels lock up. Aircraft was slowed and became stable early for the approach. At 500 ft. and approximately 30 seconds prior to landing, the Captain made the PA brace, brace, brace. A stable descent resulted in a touch down on center line and in the touch down zone where the Captain manually deployed the speed brakes. Maximum reverse thrust was selected and light steady braking was used after the nose wheel touched down. The Captain assumed command of the aircraft at about 80 kts. and kept maximum reverse thrust in until around 40-50 kts. We vacated the runway at XX and taxied on to X where the PA, remain seated, remain seated was made. Airport Rescue and Firefighting (ARFF) responders met the aircraft and confirmed all looked normal and would follow us to the gate and check the brake temps after we parked. Brake temps were confirmed all normal after parking. The entire crew did an outstanding job preparing and executing on this situation. In the end we were able to manage the threats properly, execute a safe operation by minimizing any errors and prepared for the possibility of a non-normal landing according to our training.

Synopsis

B737 flight crew reported anti skid system failure after selecting gear up. The flight crew ran the QRH and checklists, then checked the autobrake system, which also failed. The flight crew continued to destination airport.

ACN: 1992246 *(17 of 50)*

Time / Day

Date : 202304

Place

Locale Reference.ATC Facility : ZZZ.ARTCC
State Reference : US
Altitude.MSL.Single Value : 35000

Environment

Flight Conditions : VMC

Aircraft

Reference : X
ATC / Advisory.Center : 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

Location Of Person.Aircraft : X
Location In Aircraft : Flight Deck
Reporter Organization : Air Carrier
Function.Flight Crew : Captain
Function.Flight Crew : Pilot Flying
Qualification.Flight Crew : Multiengine
Qualification.Flight Crew : Air Transport Pilot (ATP)
Qualification.Flight Crew : Instrument
Experience.Flight Crew.Last 90 Days : 122
Experience.Flight Crew.Type : 616
ASRS Report Number.Accession Number : 1992246
Human Factors : Confusion
Human Factors : Troubleshooting
Human Factors : Communication Breakdown
Communication Breakdown.Party1 : Flight Crew
Communication Breakdown.Party2 : Ground Personnel

Events

Anomaly.Aircraft Equipment Problem : Critical
Anomaly.Deviation / Discrepancy - Procedural : Published Material / Policy
Anomaly.Deviation / Discrepancy - Procedural : Clearance
Detector.Automation : Aircraft Other Automation
Detector.Person : Flight Crew
When Detected : In-flight
Result.General : Flight Cancelled / Delayed
Result.General : Maintenance Action
Result.Flight Crew : Requested ATC Assistance / Clarification
Result.Flight Crew : Returned To Departure Airport
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

At approximately FL350 in cruise, the ECAM HYD Y RSVR LO LVL appeared. ECAM actions were followed and after completion, the ECAM HYD Y ENG 2 PUMP LO PR appeared due to turning off the Eng 2 Pump as directed by the first ECAM. After completing the ECAM, Dispatch was contacted and Maintenance Control was patched in. After consultation with Dispatch and Maintenance Control and discussion amongst fellow crew members, the decision was made to return to ZZZ. [Priority handling was requested]. While in the turn the flight attendants were called and given a briefing. Shortly after, a PA was made to the passengers briefly explaining the situation and that we would be returning to ZZZ. As the ride was smooth, the FAs (Flight Attendant) were permitted to finish the service that they had already started in order to give a sense of normalcy and calmness in the cabin. Once the 180-[turn] was completed, ATC provided a route direct to ZZZ where we advised that we would require Runway XXR for landing due to its length. After making the turn back to ZZZ, we realized that the aircraft would be overweight upon landing so a descent to FL240 was requested from and granted by ATC. This was due to attempting to burn as much fuel as possible to be as close as possible to maximum landing weight upon arrival. The Overweight Landing Checklist was completed while still in cruise back to ZZZ. Landing distance was calculated by both Dispatch and myself and the values came to within approximately 200 ft. of each other at around 8,500 ft. This gross error check satisfied us that the calculations were accurate. While in cruise back to ZZZ, discussions were had regarding status page notes and stopping technique. It was noticed during discussion of status page notes that the ECAM had the crew turn on the electric yellow hydraulic pump during the approach phase while neither of the non-normal checklists in the FM (Flight Manual) contained that procedure. As the accumulator pressure was dropping slowly and the concern of losing any remaining fluid existed, the decision was made to follow the status notes in the FM non-normals section and not turn on the yellow electric pump during approach. A normal approach briefing then took place. Once the aircraft neared ZZZ, ATC provided vectors overhead for a right downwind to [Runway] XXR. The aircraft was configured early due to flap movement being slow and the desire to have extra altitude in the event another malfunction occurred. We were then vectored for approximately a 15-mile final where a visual approach was conducted. The autopilot was selected off at approximately the FAF to get a feel of how the aircraft would handle while having the yellow hydraulic system inoperative. A normal landing was made and the

aircraft exited at Taxiway XX. After exiting the runway the aircraft was stopped and emergency vehicles surveyed the aircraft. Ground personnel advised that there was no evidence of hydraulic fluid on the aircraft. Emergency vehicles then cleared and the aircraft was taxied to the ramp where the engines were shut down and a tow-in was made to the final parking spot. Prior to the tow-in, the yellow electric pump was turned on momentarily to charge the accumulator in order to set the parking brake prior to shutting down engines and completing as much of a normal procedure as possible. After turning on the yellow electric pump, the hydraulic SD page was referenced and we noticed that the fluid quantity had dropped slightly. This led me to believe that if the pump was turned on according to the ECAM status notes during the approach phase and not left off according to the FM non-normal status notes, that all remaining fluid would have been lost. After shutting down the engines and waiting for the Tow Team to connect to the aircraft, it was discovered that the Tow Team did not have a headset available to communicate to the cockpit with. Instead, the busy Ramp frequency was used to communicate with the Tow Team, which led to confusion and a slight delay in getting the aircraft to the gate. After completion of the parking checklist, appropriate maintenance write-ups were made and debriefings took place with the crew, Operations Control Flight Operations Representative, and Chief Pilot.

Synopsis

A319 Captain reported that the ECAM HYD Y RSVR LO LVL appeared while in cruise. As the flight crew ran and followed the QRH and checklists, there was confusion regarding a procedure with a hydraulic pump. After consulting with Dispatch and Maintenance Control, the flight crew performed an air turnback.

ACN: 1983222 *(18 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 ZZZ. 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 ZZZ 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 ZZZ2 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 checklists 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: 1971341 *(19 of 50)*

Time / Day

Date : 202302
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 : 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
Maintenance Status.Maintenance Deferred : N
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 : Repair
Maintenance Status.Maintenance Items Involved : Inspection
Maintenance Status.Maintenance Items Involved : Installation

Component : 1

Aircraft Component : Fan Blade
Aircraft Reference : X
Problem : Malfunctioning
Problem : Improperly Operated

Component : 2

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 : 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 : 1971341
Human Factors : Communication Breakdown
Human Factors : Confusion
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 : 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 : 1971351
Human Factors : Troubleshooting
Human Factors : Confusion
Human Factors : Communication Breakdown
Human Factors : Situational Awareness
Communication Breakdown.Party1 : Flight Crew
Communication Breakdown.Party2 : Flight Crew

Events

Anomaly.Aircraft Equipment Problem : Critical
Anomaly.Deviation / Discrepancy - Procedural : Maintenance
Anomaly.Deviation / Discrepancy - Procedural : Published Material / Policy
Anomaly.Deviation / Discrepancy - Procedural : Clearance
Detector.Automation : Aircraft Other Automation
Detector.Person : Flight Crew
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.Flight Crew : Inflight Shutdown
Result.Flight Crew : Diverted
Result.Air Traffic Control : Provided Assistance
Result.Aircraft : Aircraft Damaged

Assessments

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

Narrative: 1

Prior to departure, I discovered chips in the #13 and #15 N1 Fan Blade. This was written up following standard protocol. Maintenance arrived at the aircraft and completed their procedures in order to return the aircraft to service. The flight continued as planned. In cruise an abnormal vibration was observed in the #2 Engine. This vibration was only an indication on the EICAS screen and was going from green to occasional yellow indication, but did not produce an EICAS Message/Caution/Warning. An exchange of flight controls occurred and the QRH procedure was followed for High Vibrations in the Engine. A few minutes after the QRH procedure was completed for Engine Vibration, a thud was heard from the right side of the airplane and N1 began decreasing. Interstage Turbine Temperature (ITT) then appeared to be increasing rapidly and was observed giving a Red indication. While I was watching the ITT rise, the Captain went right to securing the Engine, rather than running the QRC. We began a descent to a lower altitude, and controls were transferred over to the First Officer (FO). Following that, the Captain ran the QRH one engine inoperative approach and landing. In doing so, the QRC was missed for suspected engine damage. The QRH procedure was completed for single engine approach and landing. A diversion to ZZZ1 was decided and a landing was accomplished at the diversion airport without issue. Improper use of checklist. Speaking up when things appear to be done improperly is of upmost importance. Keep in mind standard procedure/protocol in emergencies. In post flight debriefing, it was decided that we actually should have suspected engine damage, rather than simply an engine failure. If something isn't completed in the proper order, I need to speak up. I should have said something and went back into querying about doing the QRC for suspected damage in flight

Narrative: 2

While preparing for departure the First Officer (FO) noticed a few nicks on Engine 2 N1 blades. I entered a discrepancy in the Maintenance log, ZZZ line Maintenance repaired the aircraft and returned it to service. While enroute we got an abnormal vibration on Engine 2. I turned the flight controls over to the FO and ran QRH ENGINE ABNORMAL VIBRATION. This fixed the problem. I took the controls back and we continued the cruise uneventfully for about 15 minutes. After that time Engine 2 made a popping noise, N1 spooled down, and an amber FAIL icon displayed over the Engine 2 N1 gauge. I again turned the controls over to the FO. Since there was rotation in both N1 and N2, I incorrectly thought that there was no engine damage and consequentially did not run the ENGINE FIRE, SEVERE DAMAGE, OR SEPARATION QRC. I was instead looking for the ENGINE 2 FAIL QRH. As I was doing this, I noticed the Interstage Turbine Temperature (ITT) rising rapidly to the Red Line, and went directly to securing the engine. I did this without running the QRH because of the time pressure that the rapidly rising ITT created. After securing the engine we [requested priority handling] and diverted to ZZZ1. During the descent I ran the ONE ENGINE INOPERATIVE APPROACH AND LANDING QRH. We asked for Crash Fire and Rescue (CFR) to be available on landing to ensure the aircraft was safe to taxi to the gate. We landed uneventfully. After CFR verified the aircraft was safe to taxi, we proceeded to the gate and deplaned. There were no passenger injuries, and I did not observe any video being recorded. In hindsight, my assessment of severe engine damage was incorrect. Since I did not know why the engine shut down, I should have considered it severely damaged and run the ENGINE FIRE, SEVERE DAMAGE, SEPARATION QRC. Additionally, I allowed the rapidly rising ITT influence my decision making towards turning the engine off rapidly to avoid an exceedance when I should have slowed down, allowed the exceedance and run the QRC. This self-imposed time pressure caused me to secure the engine without verification. Running the QRC gets one into the normal engine failure procedures and cadence.

Synopsis

ERJ 170/175 Flight Crew reported Engine #2 vibrations in flight. The Flight Crew ran the checklist and QRH, solving the vibration problem. Engine #2 then failed. The Flight Crew performed an in flight shut down, and diverted to make a precautionary landing.

ACN: 1965134 *(20 of 50)*

Time / Day

Date : 202301
Local Time Of Day : 1201-1800

Place

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

Environment

Flight Conditions : VMC
Light : Daylight

Aircraft

Reference : X
Aircraft Operator : Corporate
Make Model Name : Citation V/Ultra/Encore (C560)
Crew Size.Number Of Crew : 2
Operating Under FAR Part : Part 91
Flight Plan : IFR
Mission : Passenger
Flight Phase : Cruise
Route In Use : Vectors

Component

Aircraft Component : Pressurization Control System
Aircraft Reference : X
Problem : Improperly Operated

Person : 1

Location Of Person.Aircraft : X
Location In Aircraft : Flight Deck
Reporter Organization : Corporate
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 : 1965134
Human Factors : Communication Breakdown
Human Factors : Human-Machine Interface
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 : Corporate
Function.Flight Crew : First Officer
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 : 1965135

Events

Anomaly.Aircraft Equipment Problem : Critical
Anomaly.Deviation - Altitude : Excursion From Assigned Altitude
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 : Overcame Equipment Problem
Result.Flight Crew : Returned To Departure Airport
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 : Procedure

Narrative: 1

Cabin Altitude Warning at FL330. 5 minutes into cruise at FL330 the Master Caution Illuminated and Cabin ALT Illuminated. I looked at Cabin Altitude and it was at 10,000 ft. We donned oxygen masks and carried out an emergency descent to 10,000 ft. During climb the pressurization was checked at 5,000, 10,000 and 18,000 ft. Both pilots recall the cabin being at 5,000 ft. with no climb and needles split. After the level off at 10 000 ft., we noticed the Pressure Source Selector was in OFF. It was selected to normal and the pressurization appeared to function normally. A return to ZZZ for a normal landing was completed and Maintenance called.

Narrative: 2

Cabin Attitude Warning at flight level 330 in early cruise. Cabin Altitude was checked 5,000, 10,000 and 18,000 ft. and the cabin altitude was set to 5,000 ft. and a differential was noticed. Noticed Cabin Altitude was 10,000 ft. and climbing, executed an immediate decent. After level off at 10,000 ft. we noticed the Pressure Source Selector was off. Once selected to normal, the Cabin Pressure appeared to function as normal. Continued back to ZZZ for a Maintenance inspection.

Synopsis

C560 Flight Crew reported 5 minutes into cruise at FL330 the Master Caution Illuminated and Cabin ALT Illuminated. The Flight Crew requested priority handling and descended, donning oxygen masks. After running the QRH, the Pressurization Control Source Selector

was placed in normal and pressurization control was regained. The Flight Crew elected to perform an air turn back and land at departure airport for maintenance.

ACN: 1942258 *(21 of 50)*

Time / Day

Date : 202210
Local Time Of Day : 0601-1200

Place

Altitude.MSL.Single Value : 35000

Environment

Flight Conditions : VMC
Light : Daylight

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 : Cruise
Route In Use : Vectors

Component : 1

Aircraft Component : Fuel Crossfeed
Aircraft Reference : X
Problem : Malfunctioning

Component : 2

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

Component : 3

Aircraft Component : Powerplant 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 : Captain
Function.Flight Crew : Pilot Not Flying
Qualification.Flight Crew : Multiengine
Qualification.Flight Crew : Instrument
Qualification.Flight Crew : Air Transport Pilot (ATP)
Experience.Flight Crew.Total : 492
Experience.Flight Crew.Last 90 Days : 160

Experience.Flight Crew.Type : 492
ASRS Report Number.Accession Number : 1942258
Human Factors : Troubleshooting

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 : Multiengine
Qualification.Flight Crew : Air Transport Pilot (ATP)
Qualification.Flight Crew : Instrument
Experience.Flight Crew.Total : 258
Experience.Flight Crew.Last 90 Days : 142
Experience.Flight Crew.Type : 258
ASRS Report Number.Accession Number : 1942288
Human Factors : Troubleshooting

Events

Anomaly.Aircraft Equipment Problem : Critical
Anomaly.Deviation / Discrepancy - Procedural : Weight And Balance
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 : Diverted
Result.Flight Crew : Landed in Emergency Condition
Result.Flight Crew : Took Evasive Action
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

When we boarded the plane in ZZZ1 we noticed that the night before the plane had been written up for a large fuel imbalance during the flight that night. The write up had been checked and signed off so I noted the issue but felt since it had been signed off that it was safe to fly. We then departed for ZZZ2 with no issues during departure. During cruise approximately 1:30 into the flight, I noticed a 500 pound imbalance in the left wing from the right wing while still using center tank fuel. We discussed the possibility of a fuel leak since a similar write up had been made on the plane the night before. We had received a

"using reserve fuel" on the FMC and the left side wing tank had 8.12 versus the right side of 8.52. The center tank had approximately 1.1-1.4 and since we were still using center tank fuel we knew that the left side should not have been reduced at that point. We talked with the Flight Attendants and had them inspect the wing for any fuel that could be coming out of the wing or engine spar. They reported that nothing appeared to be coming out of the wing. We then contacted Dispatch and Maintenance Control and felt it was best to divert to ZZZ. After beginning to divert we used the remaining center tank fuel at which point the left wing fuel began to drastically drop (approximately 400 pounds in about 5 minutes). At this point we decided to run the fuel leak checklist which recommended that we shut down the engine. We did that and requested priority handling. We then ran the appropriate engine out checklists and proceeded to land in ZZZ with no further incident.

Narrative: 2

The aircraft had overnighted in ZZZ1 and had been written up and serviced for a fuel imbalance on the inbound flight. The logbook had been closed out properly and signed off. We departed out of ZZZ1 without any issues and climbed to FL350. While at cruise (approximately 1.5 hours into flight) the Captain noticed we had a fuel Imbalance while we were still operating out of the center wing tank. We had received a "using reserve fuel" on the FMC. The left side wing tank had 8.12 versus the right side of 8.52. center tank had approximately 1.1-1.4. We started discussing the possibility of us losing fuel on the left side. I began logging our fuel imbalance. XA55 - LT 8.12/ RT 8.52. We ensured that the appropriate fuel pumps were on and that the cross feed was closed. We coordinated with the Flight Attendants and had them inspect the wing for any fuel that could be coming out of the wing or engine spar. They reported that nothing appeared to be coming out of the wing. At this point we were monitoring the fuel imbalance and began looking at the flight manual for a potential fuel leak checklist as well as considering drift down altitudes and diversion options and contingencies. By XB11 our fuel imbalance was LT 8.01/RT 8.51. At this point we had used all center wing tank fuel and had started operating from the wing tanks. The left tank fuel was leaving the tank distinctly faster than the right tank and both engine fuel flow rates were relatively similar and normal. XB15 - LT 7.85/ RT 8.28. By this point we had already made the decision to divert to ZZZ. While heading south we separated duties. I flew while the Captain coordinated with Dispatch and Maintenance Control. In their discussion they had recommended we follow the appropriate QRH. XB24 - LT 7.34/ RT 7.74. We remained at FL350 while preceding south to ZZZ until we got to the point in the checklist where we needed to shutdown and secure the left side engine for a suspected fuel leak. The Captain continued to run the checklist and set us up for the single engine approach and landing. We coordinated with ZZZ ATC and requested priority handling and proceeded in through the arrival (originally cleared ZZZZZ 3 arrival). As we got closer to ZZZ we got assigned direct to the field and then vectors for a left downwind for XXL. We transferred fight controls so the Captain could make the landing. The First Officer (FO) completed the remainder of the checklist, securing the pneumatics and the deferred landing checklist. The approach was visual and the landing was safe and without incident. We stopped off the runway at XX and coordinated with CFR and had our left engine inspected for any fuel leakage before proceeding to the gate without any further incident.

Synopsis

Flight Crew reported a fuel imbalance that increased in flight. The Flight Crew ran the checklists and QRH. An in flight shut down of the left engine was accomplished and a request for priority handling was made. The Flight Crew elected to divert and make a precautionary landing.

ACN: 1935229 *(22 of 50)*

Time / Day

Date : 202209
Local Time Of Day : 0601-1200

Place

Locale Reference.Airport : ZZZ.Airport
State Reference : US
Relative Position.Angle.Radial : 280
Relative Position.Distance.Nautical Miles : 15
Altitude.MSL.Single Value : 15000

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 : Climb
Airspace.Class B : ZZZ

Component

Aircraft Component : Oil Indicating 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 Not Flying
Function.Flight Crew : Captain
Qualification.Flight Crew : Multiengine
Qualification.Flight Crew : Air Transport Pilot (ATP)
Qualification.Flight Crew : Instrument
Experience.Flight Crew.Last 90 Days : 140
Experience.Flight Crew.Type : 5000
ASRS Report Number.Accession Number : 1935229
Human Factors : Communication Breakdown
Human Factors : Troubleshooting
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 Flying
Qualification.Flight Crew : Instrument
Qualification.Flight Crew : Air Transport Pilot (ATP)
Qualification.Flight Crew : Multiengine
Experience.Flight Crew.Last 90 Days : 85
Experience.Flight Crew.Type : 1770
ASRS Report Number.Accession Number : 1935162
Human Factors : Troubleshooting
Human Factors : Communication Breakdown
Communication Breakdown.Party1 : Flight Crew
Communication Breakdown.Party2 : Other

Events

Anomaly.Aircraft Equipment Problem : Critical
Anomaly.Deviation / Discrepancy - Procedural : Published Material / Policy
Detector.Automation : Aircraft Other Automation
Detector.Person : Flight Crew
When Detected : In-flight
Result.General : Maintenance Action
Result.Flight Crew : Diverted
Result.Flight Crew : Landed in Emergency Condition

Assessments

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

Narrative: 1

During climbout from ZZZ, flashing alert box for engine indications began and observed oil quantity had decreased to 13%. First Officer retarded the thrust lever and oil quantity indication returned to normal. We discussed gulping. Attempted to advance thrust level again past 82ish%, and again oil quantity decreased and engine alert box flashed. We made other attempts to advance thrust level, both level at 10000 ft. and 15000 ft. Both attempts yielded the same rapidly decreasing oil quantity. We referenced Quick Reference Handbook (QRH); however, there was no guidance. Made the decision to divert to ZZZ1 as we were essentially over the airport. Elected to not shut down engine due to normal engine indications at the lower power level. Diversion and landing were uneventful.

Narrative: 2

During initial climb it was observed that the right engine oil quantity indications were decreasing and low. The flashing alert box began flashing and we soon observed the right engine oil quantity showing as low as 13% and decreasing. I disconnected the autothrottles, left the autopilot engaged and informed the Captain that I would decrease power and decrease pitch attitude. Upon decreasing power below approximately 82% N1 it was observed that right engine quantity levels began to return to normal readings. We tested our hypothesis by increasing the engine power above 85% to see if the oil quantity level on the right engine would decrease. We increased and decreased engine power three times, and each time right engine oil quantity decreased when power was increased

beyond 85% N1. These attempts happened between 10000 ft. and 15000 ft. After referencing the Quick Reference Handbook (QRH) and discussion we made the decision to divert to ZZZ1. We opted to keep the affected engine operating as low power settings showed normal indications. The diversion, descent, approach, landing and taxi to the gate were uneventful.

Synopsis

B737 Flight Crew reported reference to the QRH for engine oil quantity alert failed to provide any situational information, resulting in a diversion.

ACN: 1926048 *(23 of 50)*

Time / Day

Date : 202208
Local Time Of Day : 1201-1800

Place

Locale Reference.ATC Facility : ZAB.ARTCC
State Reference : NM
Altitude.MSL.Single Value : 28000

Environment

Flight Conditions : Mixed
Light : Daylight
Ceiling.Single Value : 14000

Aircraft

Reference : X
ATC / Advisory.Center : ZAB
Aircraft Operator : Air Carrier
Make Model Name : Large Transport, Low Wing, 2 Turbojet Eng
Crew Size.Number Of Crew : 2
Operating Under FAR Part : Part 121
Flight Plan : IFR
Mission : Passenger
Flight Phase : Cruise
Airspace.Class A : ZAB

Component

Aircraft Component : GPS & Other Satellite Navigation
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 : Instrument
Qualification.Flight Crew : Air Transport Pilot (ATP)
Qualification.Flight Crew : Multiengine
Experience.Flight Crew.Last 90 Days : 200
Experience.Flight Crew.Type : 12900
ASRS Report Number.Accession Number : 1926048
Human Factors : Troubleshooting
Human Factors : Workload
Human Factors : Distraction

Events

Anomaly.Aircraft Equipment Problem : Less Severe
Anomaly.Ground Event / Encounter : Ground Equipment Issue
Detector.Automation : Aircraft Other Automation
Detector.Automation : Aircraft Terrain Warning
Detector.Person : Flight Crew
When Detected : In-flight
Result.Flight Crew : Overrode Automation
Result.Flight Crew : Overcame Equipment Problem

Assessments

Contributing Factors / Situations : Aircraft
Contributing Factors / Situations : ATC Equipment / Nav Facility / Buildings
Contributing Factors / Situations : Company Policy
Contributing Factors / Situations : Software and Automation
Contributing Factors / Situations : Procedure
Contributing Factors / Situations : Environment - Non Weather Related
Primary Problem : Aircraft

Narrative: 1

While approaching ABQ on the LZZRD 4 to Runway 3, we received L and R GPS INVALID messages. We knew from the NOTAMs that GPS jamming was occurring in the White Sands Missile Range. We complied with the Operational Information guidance found in the back of the QRH and confirmed our position. Shortly thereafter we noticed an amber TERR POS indication on both NDs. Having experienced this before in ELP during jamming operations, I knew we would receive a PULLUP indication on approach at approximately 500 ft. Fortunately, the weather was VMC below 14,000 ft., so we elected to continue our visual approach with TERR INHIBIT selected. During landing rollout, our GPS's came back online and terrain data was once again displayed on our ND's. My concern is that there is no guidance on what to do for a TERR POS indication in the QRH.

Synopsis

Air carrier pilot reported GPS Jamming. The reporter also reported a lack of guidance in the QRH when receiving a Terrain Alert while encountering known GPS Jamming.

ACN: 1921992 *(24 of 50)*

Time / Day

Date : 202208
Local Time Of Day : 1201-1800

Place

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

Environment

Flight Conditions : VMC
Light : Daylight

Aircraft

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

Component

Aircraft Component : Pressurization Control 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 Not Flying
Function.Flight Crew : Captain
Qualification.Flight Crew : Multiengine
Qualification.Flight Crew : Air Transport Pilot (ATP)
Qualification.Flight Crew : Instrument
ASRS Report Number.Accession Number : 1921992
Human Factors : Troubleshooting
Human Factors : Situational Awareness
Human Factors : Communication Breakdown
Human Factors : Human-Machine Interface
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 : Multiengine
Qualification.Flight Crew : Instrument
Qualification.Flight Crew : Air Transport Pilot (ATP)
ASRS Report Number.Accession Number : 1922289
Human Factors : Troubleshooting
Human Factors : Time Pressure
Human Factors : Human-Machine Interface
Human Factors : Confusion
Human Factors : Communication Breakdown
Human Factors : Situational Awareness
Communication Breakdown.Party1 : Flight Crew
Communication Breakdown.Party2 : Flight Crew

Events

Anomaly.Aircraft Equipment Problem : Critical
Anomaly.Deviation / Discrepancy - Procedural : Maintenance
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 : Maintenance Action
Result.General : Flight Cancelled / Delayed
Result.Flight Crew : Executed Go Around / Missed Approach
Result.Flight Crew : Returned To Departure Airport
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 : Procedure

Narrative: 1

Day started with one aircraft that had a maintenance item being worked on by Maintenance. The First Officer (FO) and myself began to set the aircraft up for the flight and then waited for the maintenance crew to complete their service of the aircraft when we were notified of a tail swap. Proceeded as normal on the second aircraft and boarded as per usual. We departed as usual and got a clearance to a fix and up to 13,000 ft. After passing 10,000 ft., we noticed the cabin pressure was not normal and before we knew it Cabin ALT HI EICAS message was up. We followed procedure and donned our masks, I (pilot monitoring (PM)) had called for the QRC as the FO was a little behind calling for it. I told him that he's pilot flying (PF) to descend to 10,000 ft. A moment of stress and confusion to be certain. I followed the checklist and notified ATC a return to ZZZ with a

need for some time to set up as assured the FO that he is PF and I will run the checklists as PM. We finished the checklists and noticed the pressurization knob was on LFE (Landing Field Elevation) select and not AUTO. Let's return to this moment a little bit later. We continued configuring the aircraft and noticed normal pressurization on the return to ZZZ, the FO asked if I wanted to fly the aircraft and decided that would be a good decision. We configured the aircraft and set up and briefed the approach and notified ATC we are ready to head towards ZZZ...which resulted in a go around due to tight vectors from ATC to get us in causing us to become unstable. We came back around and landed safely. The moment we noticed the Pressurization Selector knob not in AUTO still dumbfounds both pilots as we are certain that we saw it facing up (auto) earlier but when we questioned each other about it we determined we were not certain if it was that aircraft or the one prior even though flows were done on both aircraft. Possible pilot error. Have a Crew Awareness EICAS message noting the pressurization knob is not in the normal position.

Narrative: 2

We received a plane from maintenance due to our originally scheduled aircraft having the NAV lights MELed. The captain and I both did new originating receiving checklists due to getting a new aircraft. Climbing through 9,500 ft., I noticed the Cabin Altitude was higher than normal. I pointed this out and shortly after I pointed it out we got a "Cabin Alt High" EICAS message. Upon getting this EICAS message we accomplished the immediate action items and then promptly ran the QRC and then QRH for cabin altitude high. We leveled off around 11,000 ft. and per the QRC started a descent to 10,000 ft. While running the QRH we noticed the pressurization knob was set to "LFE" (which it would still be in automatic mode) instead of the normal "auto" position. We switched it back right away and got the pressurization back to normal and returned to ZZZ. The passenger masks did not deploy. I transferred controls to the Captain to make the approach and landing where we got vectored in tight to the runway to which the Captain elected to do a go around. We reset up for the approach and landed normally. Having a crew awareness EICAS message to alert the pilots of a non-normal configuration of a system would have resolved this issue.

Synopsis

EMB-170 Flight Crew reported a CABIN ALT HI EICAS Message illuminated passing 10,000 ft. The Flight Crew descended immediately and ran the QRH and checklists. It was discovered that the Cabin Pressurization Selector Knob was not in AUTO. The knob was placed in AUTO and the flight returned to departure airport.

ACN: 1919153 *(25 of 50)*

Time / Day

Date : 202207
Local Time Of Day : 1801-2400

Place

Locale Reference.ATC Facility : ZZZ.ARTCC
State Reference : US
Altitude.MSL.Single Value : 35000

Environment

Flight Conditions : VMC
Light : Night

Aircraft

Reference : X
ATC / Advisory.Center : ZZZ
Aircraft Operator : Air Carrier
Make Model Name : B757-200
Crew Size.Number Of Crew : 2
Operating Under FAR Part : Part 121
Flight Plan : IFR
Mission : Cargo / Freight / Delivery
Flight Phase : Cruise
Route In Use : Vectors
Airspace.Class A : ZZZ
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 Items Involved : Inspection
Maintenance Status.Maintenance Items Involved : Testing

Component : 1

Aircraft Component : Air Conditioning and Pressurization Pack
Aircraft Reference : X
Problem : Malfunctioning

Component : 2

Aircraft Component : Pressurization Control 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 : First Officer

Qualification.Flight Crew : Air Transport Pilot (ATP)
Qualification.Flight Crew : Instrument
Qualification.Flight Crew : Multiengine
ASRS Report Number.Accession Number : 1919153
Human Factors : Troubleshooting

Person : 2

Location Of Person.Aircraft : X
Location In Aircraft : Flight Deck
Reporter Organization : Air Carrier
Function.Flight Crew : Check Pilot
Function.Flight Crew : Pilot Not Flying
Function.Flight Crew : Captain
Qualification.Flight Crew : Instrument
Qualification.Flight Crew : Multiengine
Qualification.Flight Crew : Air Transport Pilot (ATP)
ASRS Report Number.Accession Number : 1919161
Human Factors : Situational Awareness
Human Factors : Confusion
Human Factors : Troubleshooting

Events

Anomaly.Aircraft Equipment Problem : Critical
Anomaly.Deviation - Altitude : Excursion From Assigned Altitude
Anomaly.Deviation / Discrepancy - Procedural : MEL / CDL
Anomaly.Deviation / Discrepancy - Procedural : Published Material / Policy
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 : Maintenance Action
Result.General : Flight Cancelled / Delayed
Result.Flight Crew : Took Evasive Action
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 : MEL
Contributing Factors / Situations : Procedure
Primary Problem : Aircraft

Narrative: 1

During cruise at FL 350, we received a Master Warning and CABIN ALTITUDE EICAS message. Cabin altitude was approximately 11,000 feet. Crew initiated QRH procedures and descended to FL290 Initially as cabin altitude dropped to less than 10,000 feet. We continued descent to FL250 to stabilize cabin alt below 8,500 feet and [requested priority handling] with ATC. We attempted second auto controller with no different result. Crew landed at destination with no other abnormal indications.

Narrative: 2

During cruise at F350 which was our maximum altitude due to an MEL that made us single bleed, single pack, we received a Master Warning Cabin Altitude EICAS message. Cabin altitude was approximately 11,000 feet. We completed the QRH procedure and started a descent to lower altitude to FL 290 where we dropped below 10,000 feet cabin altitude. We continued to descent to FL250 where the cabin altitude was 8,500 feet. We [requested priority handling] and continued flight to our destination. We attempted to switch pressure controllers to reestablish proper pressurization but that did not work. Crew landed in ZZZ with no other issues or abnormal indications. Not watching the pressurization more vigilant on single air source. And the high cockpit temperature caused by the single pack. Possibly building the release on single pack single air source ops to a much lower altitude than the MEL limit of FL 350, this would have allowed more time for the crew to recognize the failure of the aircraft to maintain pressurization.

Synopsis

B757 Flight Crew reported receiving a Master Warning and CABIN ALTITUDE EICAS message at cruise. The Crew immediately descended and ran the QRH procedures and were able to continue to the destination airport.

ACN: 1909164 *(26 of 50)*

Time / Day

Date : 202206
Local Time Of Day : 0601-1200

Place

Locale Reference.Airport : DEN.Airport
State Reference : CO
Altitude.MSL.Single Value : 500

Environment

Flight Conditions : VMC

Aircraft

Reference : X
ATC / Advisory.Tower : DEN
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 : Landing
Airspace.Class B : DEN

Person : 1

Location Of Person.Aircraft : X
Location In Aircraft : Flight Deck
Reporter Organization : Air Carrier
Function.Flight Crew : Captain
Function.Flight Crew : Pilot Not Flying
Qualification.Flight Crew : Multiengine
Qualification.Flight Crew : Instrument
Qualification.Flight Crew : Air Transport Pilot (ATP)
Experience.Flight Crew.Total : 18500
Experience.Flight Crew.Last 90 Days : 154.9
Experience.Flight Crew.Type : 8000
ASRS Report Number.Accession Number : 1909164
Human Factors : Situational Awareness

Person : 2

Location Of Person.Aircraft : X
Location In Aircraft : Flight Deck
Reporter Organization : Air Carrier
Function.Flight Crew : First Officer
Function.Flight Crew : Pilot Flying
Qualification.Flight Crew : Multiengine
Qualification.Flight Crew : Air Transport Pilot (ATP)
Qualification.Flight Crew : Instrument
Experience.Flight Crew.Last 90 Days : 170.72

Experience.Flight Crew.Type : 466.82
ASRS Report Number.Accession Number : 1909166
Human Factors : Situational Awareness

Events

Anomaly.Deviation - Altitude : Undershoot
Anomaly.Deviation - Speed : All Types
Anomaly.Deviation / Discrepancy - Procedural : Published Material / Policy
Anomaly.Inflight Event / Encounter : Unstabilized Approach
Anomaly.Inflight Event / Encounter : CFTT / CFIT
Detector.Automation : Aircraft Other Automation
When Detected : In-flight
Result.General : None Reported / Taken

Assessments

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

Narrative: 1

We received a clearance for a visual approach to [Runway] 35L with direct to the FAF. I was monitoring our class B floor to ensure compliance and the FO was flying 250 knots. I stepped down his altitude as required to remain in class B. ATC told us the airspeed was our discretion. As we approached the final marker we were high and fast. We did not intercept the glide slope at the marker and used vertical speed to continue. At 500 feet we were stable, but I did not get our flaps to 30. I did not hear a call and we were focused on salvaging the approach. The GPWS said "terrain" and I thought this was an error. At 50 feet I noticed the flap gauge at 25. Our Vref was 164 knots due to gusts. Clearly we should have gone around and I offer no excuse.

Narrative: 2

Expected ILS 35L at DEN, was given [Runway] 35R late in the descent. Pilot Flying changed ILS radio and minimus; however PF failed to change the runway in the ARR Page on the FMC. ILS 35R became visual 35R per approach control, which wasn't unexpected based on ATIS information. When the omission of the ARR runway was realized and was entered we lost vertical guidance on the PFD and added to the task saturation in the cockpit. PF attempted to slow to from 250 to 210 at approx 7 miles from FRONZ (FAF for 35R) on a 45 deg dogleg vector off the CLASH Arrival. Had to stay high due to Class B airspace airspeed restrictions, then was late to get down to 7000 feet by FRONZ which resulted in having to stay high and configure. Aircraft was high at FRONZ and for the remainder of the approach into 35R. Being high approaching FRONZ, attempted to utilize V/S Mode to capture the glide path, which resulted in a higher than necessary airspeed which then resulted in a late configuration and continuance above acceptable parameters for landing. Attempted to continue to recover the approach while still high and configuring the aircraft to a greater rate of descent to capture a stabilized approach. By 500 feet, was in excess of 1000 feet per/minute and only Flaps 25 with 1 Red and 3 white on the PAPIs Called for flaps 30 but did not verify flap movement and did not verify completion of landing checklist which would have precluded "Too Low Terrain" annunciation. Continued to landing which was uneventful and within acceptable landing parameters on the runway.

Synopsis

B737 NG Flight Crew reported receiving a terrain warning on short final approach to DEN airport due to flap misconfiguration. Flight crew stated they received a late runway change which resulted in a higher-than-normal rate of descent and not completing a checklist.

ACN: 1903778 *(27 of 50)*

Time / Day

Date : 202205
Local Time Of Day : 1801-2400

Place

Locale Reference.Airport : ZZZ.Airport
State Reference : US
Relative Position.Distance.Nautical Miles : 2
Altitude.MSL.Single Value : 1500

Environment

Flight Conditions : VMC
Light : Night

Aircraft

Reference : X
Aircraft Operator : Air Carrier
Make Model Name : B737 Undifferentiated or Other Model
Operating Under FAR Part : Part 121
Flight Plan : IFR
Mission : Cargo / Freight / Delivery
Flight Phase : Final Approach
Route In Use : Visual Approach

Component

Aircraft Component : Trailing Edge Flap
Aircraft Reference : X
Problem : Malfunctioning

Person

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 : Flight Instructor
Qualification.Flight Crew : Air Transport Pilot (ATP)
Qualification.Flight Crew : Instrument
Experience.Flight Crew.Total : 3200
Experience.Flight Crew.Last 90 Days : 185
Experience.Flight Crew.Type : 1050
ASRS Report Number.Accession Number : 1903778
Human Factors : Communication Breakdown
Human Factors : Time Pressure
Human Factors : Troubleshooting
Human Factors : Workload
Human Factors : Situational Awareness

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

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 : Executed Go Around / Missed Approach
Result.Flight Crew : Requested ATC Assistance / Clarification
Result.Flight Crew : Landed As Precaution
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

I was PM during base leg of visual approach (XL via channel). Landing checklist had been completed at Flaps 15 per company SOP. PF called for F25, PM selected F25 and then noticed trailing edge flap asymmetry (L flap 15, R flap 25) on the flap comparator. PM alerted PF to asymmetry and visual approach was terminated and crew requested a turn and climb away from the airport to conduct checklist/QRH (Quick Reference Handbook) items. No rolling moment was felt by the PF once the AP was disengaged. QRH items completed and landing was uneventful. Flaps were left down for maintenance inspection upon taxi back to ramp. Contributing factors are many. One being the company's decision to continue to operate aging aircraft well past their prime. Second being a general hesitancy amongst the pilot group to report safety/aircraft reliability concerns due to fear of the operational impact. I have witnessed numerous mechanical discrepancies get passed to maintenance verbally vice being written in the logbook. This should not be tolerated as it does not allow a history of discrepancies for a particular mechanical issue to be documented which can impact troubleshooting. This ultimately impacts reliability and aircraft availability.

Synopsis

B737 First Officer reported a flap asymmetry problem on approach. The Flight Crew executed a go-around and complied with the Checklist/QRH procedures. The Flight Crew then flew the approach to landing at destination airport.

ACN: 1902025 *(28 of 50)*

Time / Day

Date : 202205
Local Time Of Day : 1801-2400

Place

Locale Reference.Airport : ZZZ.Airport
State Reference : US
Altitude.MSL.Single Value : 25000

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
Nav In Use : FMS Or FMC
Nav In Use : GPS
Flight Phase : Cruise
Route In Use : Direct
Airspace.Class A : ZZZ

Component

Aircraft Component : Pneumatic Valve/Bleed Valve
Aircraft Reference : X
Problem : Malfunctioning
Problem : Failed

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 : 1902025
Human Factors : Distraction
Human Factors : Situational Awareness
Human Factors : Time Pressure
Human Factors : Troubleshooting
Human Factors : Workload

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 : 1902028
Human Factors : Workload
Human Factors : Time Pressure
Human Factors : Situational Awareness
Human Factors : Distraction
Human Factors : Troubleshooting

Events

Anomaly.Aircraft Equipment Problem : Less Severe
Detector.Automation : Aircraft Terrain Warning
Detector.Person : Flight Crew
Were Passengers Involved In Event : N
Result.Flight Crew : Diverted
Result.Flight Crew : Requested ATC Assistance / Clarification
Result.Flight Crew : FLC complied w / Automation / Advisory
Result.Air Traffic Control : Provided Assistance

Assessments

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

Narrative: 1

After takeoff from ZZZ1 we had caution indication on EICAS High Stage Valve We are followed QRH. We stayed at 25,000 feet and had two issues to resolve first the fault and secondly FO (First Officer) Display which blinked relevant report. We were in contact with the Dispatcher who after informing him about the current situation sent us our latest fuel calculations and informed us that we should go to the ZZZ as divert airport. We Indeed they did go to the Divert Airport ZZZ and I immediately contacted him after landing and ask new information for the next flight ZZZ-ZZZ2. I contacted with Maintenance and informing him about the two remarks by filling in technical log book.

Narrative: 2

In flight on the way from ZZZ to ZZZ1, EICAS message HS 1 Valve Fail came up. We ran the QRH procedure and diagnosed the problem. The message came back up on the EICAS shortly after so we ran the procedure again and it was diagnosed but then shortly after once again, the message came back up on the EICAS. We ran the QRH procedure differently this time and we shut bleed valve 1 off. We were limited to FL250 when we were originally planned for FL360. We sent for fuel numbers and it was determined by both Dispatch and the crew to divert to ZZZ due to a higher fuel burn and with a maintenance issue.

Synopsis

EMB-145 Flight Crew reported the failure of the HS 1 bleed valve. The pilots stated they ran the QRH, descended to a lower altitude, realized there was not enough fuel to

complete the mission at the lower altitude and diverted. The pilots were in communication with their Dispatcher.

ACN: 1894250 *(29 of 50)*

Time / Day

Date : 202204
Local Time Of Day : 0601-1200

Place

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

Environment

Flight Conditions : VMC
Light : Daylight

Aircraft

Reference : X
ATC / Advisory.TRACON : ZZZ
Aircraft Operator : Air Carrier
Make Model Name : EMB ERJ 145 ER/LR
Crew Size.Number Of Crew : 2
Operating Under FAR Part : Part 121
Flight Plan : IFR
Mission : Passenger
Flight Phase : Descent
Route In Use.STAR : ZZZZZ
Airspace.Class E : 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 : Multiengine
Qualification.Flight Crew : Air Transport Pilot (ATP)
Qualification.Flight Crew : Instrument
ASRS Report Number.Accession Number : 1894250
Human Factors : Confusion
Human Factors : Human-Machine Interface
Human Factors : Situational Awareness
Human Factors : Time Pressure
Human Factors : Troubleshooting
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 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 : 1894251
Human Factors : Troubleshooting
Human Factors : Time Pressure
Human Factors : Human-Machine Interface
Human Factors : Confusion
Human Factors : Communication Breakdown
Human Factors : Situational Awareness
Communication Breakdown.Party1 : Flight Crew
Communication Breakdown.Party2 : Flight Crew

Events

Anomaly.Aircraft Equipment Problem : Critical
Anomaly.Deviation / Discrepancy - Procedural : FAR
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 : Overcame Equipment Problem
Result.Flight Crew : Landed in Emergency Condition
Result.Flight Crew : Requested ATC Assistance / Clarification
Result.Air Traffic Control : Provided Assistance

Assessments

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

Narrative: 1

While on the arrival into ZZZ, passing through approximately 12,000 feet, we had an EICAS (Engine Indicating and Crew Alerting System) advisory message "HYD SYS 1 LO QTY" appear after ATC issued a runway change. The captain advised me to run the HYD SYS 1 LO QTY QRH. We noted that our hydraulic quantity on system 1 was in the amber range. I proceeded to run the applicable checklist while the captain took over the radios and maintained control of the aircraft. Before completing the "HYD SYS 1 LO QTY" quick reference handbook procedure, it included HYD SYS 1 FAIL procedure to be followed "as required" I should have noticed that if "HYD SYS FAIL" EICAS messages were displayed--the procedure WOULD be required. I was thinking that because our hydraulic quantity was low, we might have a system degradation based on what I read in the HYD SYS 1 FAIL QRH, and that it was required. I subsequently followed the HYD SYS 1 FAIL QRH and did

not see the HYD SYS 1 FAIL EICAS messages that corresponded to the HYD SYS 1 FAIL QRH. I reviewed the entire HYD SYS 1 FAIL QRH procedure once verbally all the way through with minor interruptions, and proceeded to review it two more times verbally, only highlighting the gear extension and degradation information. In error, we then proceeded to execute the HYD SYS 1 FAIL QRH which resulted in a manual gear extension. We took all of the precautions per the QRH that some aircraft systems may be degraded and completed the HYD SYS 1 FAIL QRH and landed. After landing the Captain and I debriefed the event where we read back through both of the QRH procedures that we had followed and then we realized that we could likely have closely monitored the applicable hydraulic systems and dropped the landing gear early and that HYD 1 LO QTY was not a trigger for the HYD SYS 1 fail QRH. Overall I felt that communication was high, but I failed to confirm that the EICAS messages for the HYD SYS 1 FAIL QRH were displayed, which might have changed our course of action. I believe that had I compared the messages only for the HYD SYS 1 FAIL that were not present on our aircraft then, the "As required" statement in the HYD 1 LO QTY QRH would have been more apparent to me. CRM was used throughout the entire flight including the emergency, but I could have done a better job at highlighting that the EICAS messages for the HYD 1 SYS FAIL were not present. I made an assumption when reading the QRH that though we didn't have a hydraulic system 1 failure indication, our lack of hydraulic quantity could lead to a degradation in hydraulic systems and made the HYD SYS 1 FAIL QRH required. This was not the case, I will make more emphasis in verifying the EICAS messages for the applicable QRH in order to achieve a higher level of CRM.

Narrative: 2

On descent in the later part of the STAR into ZZZ the HYD 1 LOW QTY advisory was displayed on the EICAS (Engine Indicating and Crew Alerting System). The HYD 1 sys was in the amber. After handling a late runway change the QRH was executed for HYD 1 LOW QTY, which at the end says to execute the HYD 1 FAIL QRH procedure 'as required'. This was misinterpreted as being told to act as though we were having a HYD 1 SYS failure. In hind sight it became clear that the HYD 1 SYS failure X of the QRH should not have been executed due to the fact that the trigger of having the "HYD 1 FAIL' had not yet been explicitly displayed on the EICAS. Somehow in error this trigger was overlooked and a manual gear extension was conducted along with the assumption we would have several systems inop. In hind sight the most likely outcome had this not been overlooked would have been an attempt to lower the gear early and the system would simply be 'monitored' unless that failure EICAS was displayed in flight- as well as an emergency not being declared in that case (rather just heightened awareness of that situation and the implications). In hind sight I'm not sure how the HYD 1 FAIL requirement was overlooked. CRM was ideal overall and it may have come down to QRH assumptions or an interruption at that critical point of EICAS confirmation. As mentioned, it was interpreted in part as though the QRH was driving to act as though the system was failed or imminently going to be failed. Possibly to avoid this in the future extra emphasis should be on not only confirming the correct checklist but just as importantly the presence or the absence of the EICAS message triggers for QRH portions. Both crew in the debrief realized the QRH was incorrectly executed.

Synopsis

Flight crew reported confusion during QRH procedures for a hydraulic system low quantity event. This led to an unnecessary manual extension of the landing gear, complicating the landing at destination airport.

ACN: 1894045 *(30 of 50)*

Time / Day

Date : 202204
Local Time Of Day : 0601-1200

Place

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

Environment

Flight Conditions : VMC
Light : Daylight

Aircraft

Reference : X
ATC / Advisory.TRACON : ZZZ
Aircraft Operator : Air Carrier
Make Model Name : B737-800
Crew Size.Number Of Crew : 2
Operating Under FAR Part : Part 121
Flight Plan : IFR
Mission : Passenger
Flight Phase : Descent
Airspace.Class E : ZZZ

Component : 1

Aircraft Component : Leading Edge Flap
Aircraft Reference : X
Problem : Malfunctioning

Component : 2

Aircraft Component : System Monitor: Indicating and Warning
Aircraft Reference : X
Problem : Malfunctioning

Person

Location Of Person.Aircraft : X
Location In Aircraft : Flight Deck
Reporter Organization : Air Carrier
Function.Flight Crew : First Officer
Function.Flight Crew : Pilot Not Flying
Qualification.Flight Crew : Air Transport Pilot (ATP)
Qualification.Flight Crew : Instrument
Qualification.Flight Crew : Multiengine
ASRS Report Number.Accession Number : 1894045
Human Factors : Troubleshooting
Human Factors : Situational Awareness
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 : 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 : Maintenance Action
Result.General : Flight Cancelled / Delayed
Result.Flight Crew : Landed As Precaution
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

Descending to 8,000 feet we were assigned speed 190 knots. After selecting flaps 1, Autopilot A kicked off. I started to hand fly, and we noticed the lower amber band was above the flaps 1 maneuver bug. We selected flaps 5, the amber band did not move and then the First Officer (Pilot Monitoring) noticed the amber LE FLAPS TRANSIT was illuminated and flaps indicated < 1. We requested delay vectors from ATC and I transferred the plane and radios to the First Officer. We settled on the Trailing Edge Flap Disagree checklist in the Quick Reference Handbook. The alternate flap extension moved the flaps only to just above 1. We pulled up flap 1 data on the ACARS, and also referred to flaps up data provided by Dispatch to ensure we were able to safely land on Runway XXL. The approach and landing we uneventful, taxing clear at Taxiway N with normal braking. After parking we noticed the Proximity Electronics Unit light. Just request priority handling when dealing with flap issues, we initially did not and then got deep in the checklist and setting up for the approach and didn't think about it again.

Synopsis

First officer reported a Leading Edge Flaps in Transit light on approach. The flight crew requested vectors for troubleshooting and to perform the QRH procedures. The flight crew then resumed the approach to landing at destination airport.

ACN: 1893085 *(31 of 50)*

Time / Day

Date : 202204
Local Time Of Day : 0601-1200

Place

Locale Reference.ATC Facility : ZZZ.TRACON
State Reference : US
Altitude.MSL.Single Value : 5000

Environment

Flight Conditions : VMC
Weather Elements / Visibility : Rain
Weather Elements / Visibility : Thunderstorm
Light : Daylight

Aircraft

Reference : X
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 : Final Approach
Route In Use : Vectors

Component

Aircraft Component : Leading Edge Flap
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 : Instrument
Qualification.Flight Crew : Multiengine
Qualification.Flight Crew : Air Transport Pilot (ATP)
Experience.Flight Crew.Last 90 Days : 141
Experience.Flight Crew.Type : 4333
ASRS Report Number.Accession Number : 1893085
Human Factors : Communication Breakdown
Human Factors : Situational Awareness
Human Factors : Troubleshooting
Human Factors : Workload
Human Factors : Confusion

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 : Maintenance
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 : Executed Go Around / Missed Approach
Result.Flight Crew : Requested ATC Assistance / Clarification
Result.Flight Crew : Landed As Precaution
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

The aircraft had a history of flap issues and issues with the EECs that the Captain and I discussed in ops before the flight. In the carry forward items section of the release there was a long time fault with the #1 EEC. Then in the log history on Day 0 the aircraft had a leading edge flaps transit light stays on write up. There were a series of write ups with the flaps in the history saying #2 transit light on. The first one starting on Day 0, then Day 1 was the second occurrence, then Day 2, then on our flight on Day 3. All of these write ups had the leading edge flaps transit light on. We did discuss this history together before the flight. Normal flight up until top of descent point. Thunderstorms were starting to pop up into central [state] and there was holding into one of the airports, we think it was ZZZ1. Frequency was very saturated and difficult to get any word with ZZZ2 center or Center. We asked for lower 4 times on frequency before given our first descent and that this point we were 5000+ feet high on the arrival. When finally given descent via ZZZZZ1 landing east we told ATC we would be do are best but were already very high. Speeds on the arrival were complied with and full speed brakes were used from the TOD which was my best guess FL350 down to a cleared to bottom of 6,000 feet. When we switched to approach we were vectored off the arrival for traffic and told to maintain 6,000 feet. Approach gave us a vector off the arrival and then vectored us on ILS approach course. Thunder storms were building all around ZZZ and there were some buildups and rain that we went through when being vectored and re-vectored onto the arrival. At some point during these vectors back onto the ILS Runway XXL approach course we were given a speed reduction to 210 knots. This occurred somewhere on the base leg to final. At that time the Captain called for flaps 1. All indications with the Flap position indicator showed flaps 1, the handle was at flaps 1, but the LE Flaps transit light was still illuminated. A quick glance up at the Leading Edge Devices annunciator panel showed 1 amber light, the rest were green. The amber light was located on the left hand side underneath the flaps 1 number at the top of the annunciator. We were concerned with the approaching thunderstorms to the ZZZ airport so I pulled out the paper Quick Reference Handbook and

we began running through the procedure while continuing on the approach. Went to the flight controls tab, then the leading edge flaps transit light page read the notes out loud quickly and then read through point 1 where it gives you the option to choose 1. We read through the first one and ruled it out and had a quick discussion that were was no roll or any indication of any asymmetry. Read the second one and again after some quick discussion agreed it was our problem. Went to step 7 and started to plan for a flaps 15 landing. We set Vref 15 +15 knots. This is where I made an initial error. I selected flaps 15 Vref speed and then put +15 in the wind additive so I think the flaps 15 speed was 160 and I put the plus 15 in the wind additive for a speed of 165 knots initially. Then step 9 is use normal wind additive winds were like 150@9 at the time so would of been + 5 but I did not change anything at this point. Step 10 is to put the ground proximity flap inhibit switch to inhibit so I confirmed that with the Captain and did that. Somewhere right in here we got are last turn on to the approach course and were cleared for the approach. The next step was to calculate landing distance so I had to go to my IPAD this the tables are removed in the Quick Reference Handbook for that. Hit they hyperlinks for the 900ER and found the table and read out the landing distance first for the Trailing Edge Flap Asymmetry Flap lever 15 and then I realized this was not the right table and found the Leading edge flaps transit flaps 15 aircraft condition. We were approximately 145,000 pounds so I read out 5,000 feet needed for good braking and 7,000 for medium. I then looked at the adjustments to landing distance and the only one that applied was the add per C above ISA and it was minimal. Then went to step 3 for the 15% safety margin and if it went down to medium braking we needing about 8,200 feet of runway and less than 6,000 feet for good. The rain was not hitting the airport currently so we expected to have 600 braking. The runway is listed as 9,000 feet long on the 10-9 and 8,400 ft. available beyond the threshold. I did all this as fast as I could and while we were intercepting the glide slope and starting down on the approach. All through this the center and approach frequencies were completely saturated with constant communication from ATC to other aircraft and us with no real significant breaks between radio transmissions. I read aloud steps 13 and 14 and then went right into the deferred items because we were at that point already. Captain called for gear and flaps 15 somewhere in the middle of the deferred items checklist we finished the checklist somewhere between 1,500 feet and 1,000 feet. Captain asked if we were good and we both agreed we were to continue the approach. I double checked the whole procedure reading it quickly through again and realized I set the flaps 15 speed wrong so by the I think Vref 15 was 149 I added the 15 knots to 164 and put that in on the speed line and then changed the wind additive to +5 so we had an approach speed of 169. I did this right before we were at 1,000 feet. At some point during all of that we were switched over to Tower and cleared to land. There was a corporate jet on the runway and he was being told told we were fast approaching and to vacate the runway. Then given expedite instructions and then a little above 500 feet. tower issued go around instructions to us. We were given a heading slightly off from runway heading an initial climb to 2,000 feet Captain gave all the correct go around commands we went to heading select and flew the Tower assigned heading, we had a discussion of the missed approach instructions because Captain wanted to make sure he heard them correctly and also a discussion about going all the way to clean maneuvering speed or leaving flaps down. Captain wanted to try and recycle the flaps to see if we got the light again. So we did go all the way to flaps up and after takeoff. Eventually Tower gave us a turn to the downwind and a climb to 4,000 feet and switched us back over to approach. Approach re-vectored us on to the course for another ILS XXL approach. Captain redid an abbreviated approach brief and then we selected flaps 1 again and go the LE Flaps transit light. We went through the Quick Reference Handbook again and completed all the steps to the deferred item landing checklist. We completed the deferred item checklist after the gear was selected down and that finished the procedure. While being vectored I did let approach know that we were going to have a final approach speed of 170 knots we never

[requested priority handling] or let any outside source know of the flap system malfunction. Our main concern was getting into the field before the thunderstorms passed over it. Captain made an uneventful flaps 15 landing. We exited at [taxiway] 1 and were told to go straight to ramp and ramp told us to go into [the gate]. We complied with instructions and safely parked. Completed the parking checklist and then called ops to let them know of the maintenance problem and Captain put the write up into the ELB.

Synopsis

B737 First Officer reported operating an aircraft with a long history of leading edge flap asymmetry discrepancies. This aircraft had a repeat discrepancy occur during approach to landing. The flight crew performed a go around and complied with the QRH procedures and rejoined the approach and landing at destination airport.

ACN: 1892419 *(32 of 50)*

Time / Day

Date : 202204
Local Time Of Day : 1201-1800

Place

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

Environment

Flight Conditions : VMC
Light : Daylight

Aircraft

Reference : X
Aircraft Operator : Air Carrier
Make Model Name : SA-227 AC Metro III
Crew Size.Number Of Crew : 2
Operating Under FAR Part : Part 135
Flight Plan : IFR
Mission : Passenger
Flight Phase : Initial Climb
Flight Phase : Climb
Route In Use : Vectors

Component

Aircraft Component : Gear Extend/Retract Mechanism
Aircraft Reference : X
Problem : Malfunctioning

Person

Location Of Person.Aircraft : X
Location In Aircraft : Flight Deck
Reporter Organization : Air Carrier
Function.Flight Crew : First Officer
Function.Flight Crew : Pilot Not Flying
Qualification.Flight Crew : Instrument
Qualification.Flight Crew : Multiengine
Qualification.Flight Crew : Air Transport Pilot (ATP)
ASRS Report Number.Accession Number : 1892419
Human Factors : Communication Breakdown
Human Factors : Human-Machine Interface
Human Factors : Troubleshooting
Communication Breakdown.Party1 : Flight Crew
Communication Breakdown.Party2 : Flight Crew

Events

Anomaly.Aircraft Equipment Problem : Critical
Anomaly.Deviation / Discrepancy - Procedural : Clearance

Anomaly.Deviation / Discrepancy - Procedural : Published Material / Policy
Detector.Automation : Aircraft Other Automation
Were Passengers Involved In Event : N
When Detected : In-flight
Result.General : Maintenance Action
Result.General : Flight Cancelled / Delayed
Result.Flight Crew : Returned To Departure Airport
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

During our Gear Up call out, the Captain made note of the hydraulic annunciator and we both verified loss of hydraulic pressure with the pressure gauge. ATC was then made aware of our situation. We asked for vectors to run checklists. We ran the hydraulic failure checklist and the Captain proceeded to call for the hydraulic failure checklist and the Captain proceeded to call for priority gear extension. Who omitted the landing gear lever down step due the Captain giving the checklist to me verbally and omitted the gear up step of the checklist because we received three green (down and locked) on the gear indication. We then asked for vectors back to the Runway XXR at ZZZ. As we made or final approach, the Captain notified the passengers of a possible evacuation of the aircraft on the ground. When then proceeded without final approach and landing after completing or gear down before landing checklist verifying again that we had 3 green indication and flaps still in the 1/4 position again not making note that the gear lever was still in the up position. We came to a stop toward the right side of the runway and we're in immediate contact with ops and fire. Once the aircraft was deemed safe the passengers were shuttled back to the gate and the aircraft was towed back.

Synopsis

SA-227 Flight Crew reported landing gear failed to retract when selected up after take off. The Flight Crew ran the QRH procedures and elected to perform an air turn back and precautionary landing at departure airport.

ACN: 1885604 *(33 of 50)*

Time / Day

Date : 202111

Place

Locale Reference.ATC Facility : ZZZ.ARTCC
State Reference : US
Altitude.MSL.Single Value : 29000

Aircraft

Reference : X
ATC / Advisory.Center : ZZZ
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 : Climb
Airspace.Class A : ZZZ

Component

Aircraft Component : Cargo Compartment Fire/Overheat Warning
Aircraft Reference : X
Problem : Design

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 : 10000
Experience.Flight Crew.Last 90 Days : 80
ASRS Report Number.Accession Number : 1885604
Human Factors : Distraction
Human Factors : Human-Machine Interface
Human Factors : Troubleshooting
Human Factors : Workload
Human Factors : Confusion

Events

Anomaly.Aircraft Equipment Problem : Critical
Anomaly.Deviation / Discrepancy - Procedural : Published Material / Policy
Detector.Person : Flight Crew
When Detected : In-flight

Result.Flight Crew : Overcame Equipment Problem
Result.Flight Crew : Returned To Departure Airport
Result.Flight Crew : Requested ATC Assistance / Clarification

Assessments

Contributing Factors / Situations : Aircraft
Contributing Factors / Situations : Company Policy
Contributing Factors / Situations : Human Factors
Contributing Factors / Situations : Manuals
Contributing Factors / Situations : Procedure
Primary Problem : Aircraft

Narrative: 1

We took off on Runway XXR on the ZZZZZ departure. Climbing through 29000 ft., we received AFT COMPT LOOP FAULT. I leveled off at 30000 ft. and we ran the QRH checklist. We then received the CARGO COMPT SMOKE ECAM message and a Master Caution. I took over ATC comm 1 radio and [advised ATC] and requested return to ZZZ. The FO (First Officer) continued the checklist, changed the destination and set us up for a return to Runway XYR at ZZZ. We had an uneventful landing and the fire department used thermal cameras to check for heat signature in the AFT compartment. No indications were seen and we taxied back to the ramp. This is an edited version of my first [report] from this event. I was PF (Pilot Flying). We took off on [Runway] XXR on the ZZZZZ departure. Climbing through 29000 ft.,we had a AFT COMPT LOOP FAULT ECAM message with a Cargo Loop Fault procedure. My FO (First Officer) opened the QRH to the Cargo Loop Fault checklist. After further reflection on our actions during the event and referencing the Systems manual and QRH again, I realized the Cargo Loop Fault checklist does not fully explain how to do a Loop Test. The checklist states, "Loop Test - Perform" but does not go into detail on HOW to perform a loop test. The systems manual does, and on step X. Loop Test Pushbutton it states - "Pressed and held IN". My FO did not press and hold in the Loop Test button, he only pressed and released it. The next sentence in the QRH Cargo Loop Fault checklist states, "If SMOKE light does not illuminate for affected compartment (smoke condition exists):" My FO and I looked at each other and said, "We must have smoke." We then continued the checklist by RE-SELECTING LOOP A (which had faulted) and turned OFF the OTHER LOOP. Almost immediately we received the CARGO COMPT SMOKE ECAM Master Warning and chime as the checklist states, Procedure: CARGO COMPT SMOKE. I took over ATC communications 1 radio and [requested priority handling], requested return to ZZZ as the FO continued the checklist, changed the destination and set us up for a return to XYR back at ZZZ. Uneventful landing and the fire department used thermal cameras to check for heat signature in the AFT compartment. No indications were seen and we taxied back to the ramp. If you look at the [Aircraft] System manual, you can see the photo of the Lower Cargo Smoke Detection system and see that by re-selecting a faulted LOOP A, and turning OFF the good LOOP B, you will receive a SMOKE detection, which is what we had. In addition, if you turn the page in the QRH you will see "Additional Information" which uses the example of an Illuminated LOOP A fault. This information is very important and a reference to it should be included on page XXX of the QRH. I would recommend a change to the QRH CARGO LOOP FAULT checklist to edit the "LOOP TEST - PERFORM" to closely match the Systems manual and should read, "LOOP TEST - PRESS AND HOLD IN". ALL lights on the Cargo Compartment Smoke Detection panel should illuminate which will confirm a faulty loop (see second boldfaced sentence). If the SMOKE light does NOT illuminate for affected compartment, smoke condition exists. If you flip the two boldface sentences, the checklist will make more sense after you "perform a loop test" by holding the button IN. Since our FO's do not perform a Main Deck or Cargo

compartment LOOP test during their preflight, they may not understand you must hold the button in to do the loop test.

Synopsis

Air Carrier Captain reported receiving a warning of smoke in the cargo compartment and returned to departure airport. The Captain reported the QRH does not adequately explain the procedure to resolve this warning.

ACN: 1861169 *(34 of 50)*

Time / Day

Date : 202112

Place

Altitude.AGL.Single Value : 0

Aircraft

Reference : X
Aircraft Operator : Air Carrier
Make Model Name : B757 Undifferentiated or Other Model
Crew Size.Number Of Crew : 2
Operating Under FAR Part : Part 121
Flight Plan : IFR
Mission : Passenger
Flight Phase : Takeoff / Launch
Route In Use : Vectors

Component : 1

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

Component : 2

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

Person

Location Of Person.Aircraft : X
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)
ASRS Report Number.Accession Number : 1861169
Human Factors : Communication Breakdown
Human Factors : Human-Machine Interface
Human Factors : Situational Awareness
Human Factors : Training / Qualification
Human Factors : Troubleshooting
Human Factors : Workload
Human Factors : Distraction
Communication Breakdown.Party1 : Flight Crew
Communication Breakdown.Party2 : Flight Crew

Events

Anomaly.Aircraft Equipment Problem : Critical
Anomaly.Deviation / Discrepancy - Procedural : FAR
Anomaly.Deviation / Discrepancy - Procedural : Published Material / Policy
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 : Overcame Equipment Problem

Assessments

Contributing Factors / Situations : Aircraft
Contributing Factors / Situations : Company Policy
Contributing Factors / Situations : Software and Automation
Contributing Factors / Situations : Procedure
Contributing Factors / Situations : Incorrect / Not Installed / Unavailable Part
Primary Problem : Company Policy

Narrative: 1

On takeoff with ENGINE FIRE/FAILURE, EFB content locker crashed. Came back up with spinning wheel and eventually was able to get the QRC to run the checklist. Pulling paper QRHs off this fleet would be a giant mistake, in my opinion. This is not the first time I've had to report the EFB and associated apps.

Synopsis

B757 Captain reported EFB content crashed while doing checklists for an engine fire. Reporter recommends retaining the paper copies of the QRH on the aircraft to mitigate this situation.

ACN: 1838870 *(35 of 50)*

Time / Day

Date : 202109
Local Time Of Day : 1201-1800

Place

Locale Reference.Airport : ZZZ.Airport
State Reference : US
Relative Position.Distance.Nautical Miles : .75
Altitude.AGL.Single Value : 0

Environment

Flight Conditions : VMC
Weather Elements / Visibility : Haze / Smoke
Weather Elements / Visibility.Visibility : 7
Light : Daylight
Ceiling.Single Value : 3500

Aircraft : 1

Reference : X
ATC / Advisory.CTAF : ZZZ
Aircraft Operator : Personal
Make Model Name : Small Aircraft, Low Wing, 2 Eng, Retractable Gear
Crew Size.Number Of Crew : 2
Operating Under FAR Part : Part 91
Flight Plan : None
Mission : Training
Flight Phase : Landing
Route In Use : Vectors
Airspace.Class E : ZZZ

Aircraft : 2

Reference : Y
ATC / Advisory.CTAF : ZZZ
Aircraft Operator : Personal
Make Model Name : Skyhawk 172/Cutlass 172
Crew Size.Number Of Crew : 1
Operating Under FAR Part : Part 91
Flight Plan : VFR
Mission : Personal
Flight Phase : Final Approach
Route In Use : None
Airspace.Class E : ZZZ

Component

Aircraft Component : Gear Extend/Retract Mechanism
Aircraft Reference : X
Problem : Improperly Operated

Person : 1

Location Of Person.Aircraft : X
Location In Aircraft : Flight Deck
Reporter Organization : FBO
Function.Flight Crew : Pilot Not Flying
Function.Flight Crew : Instructor
Qualification.Flight Crew : Instrument
Qualification.Flight Crew : Flight Instructor
Qualification.Flight Crew : Air Transport Pilot (ATP)
Qualification.Flight Crew : Multiengine
Experience.Flight Crew.Total : 17000
Experience.Flight Crew.Last 90 Days : 225
Experience.Flight Crew.Type : 50
ASRS Report Number.Accession Number : 1838870
Human Factors : Situational Awareness
Human Factors : Training / Qualification
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 : Personal
Function.Flight Crew : Pilot Flying
Qualification.Flight Crew : Commercial
Qualification.Flight Crew : Instrument
Experience.Flight Crew.Total : 442
Experience.Flight Crew.Last 90 Days : 23
Experience.Flight Crew.Type : 15
ASRS Report Number.Accession Number : 1838899
Human Factors : Training / Qualification
Human Factors : Situational Awareness
Human Factors : Distraction
Human Factors : Communication Breakdown
Communication Breakdown.Party1 : Flight Crew
Communication Breakdown.Party2 : Flight Crew

Events

Anomaly.Aircraft Equipment Problem : Critical
Anomaly.Conflict : Airborne Conflict
Anomaly.Deviation / Discrepancy - Procedural : Published Material / Policy
Anomaly.Ground Event / Encounter : Gear Up Landing
Detector.Person : Flight Crew
Miss Distance.Horizontal : 2600
Miss Distance.Vertical : 0
Were Passengers Involved In Event : N
When Detected : In-flight
Result.General : Maintenance Action
Result.Flight Crew : Took Evasive Action

Assessments

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

Narrative: 1

On Date, I conducted a multi-engine commercial examination in a [small two-engine aircraft]. While conducting a simulated engine failure single-engine ILS approach to Runway XX at ZZZ, ATC, (i.e., ZZZ Approach Control), vectored the applicant onto final. Once laterally established on the approach, ATC switched the applicant over to the common traffic advisory frequency. ATC provided no further traffic advisories or alerts The applicant then switched to the advisory frequency and announced his position as a five (5) mile final to Runway XX. Aircraft Y then announced downwind for Runway XY. I then told the applicant that in the event of go-around, both engines were available. The applicant continued while I searched for traffic in haze and seven mile visibility. The applicant reported a three (3) mile final. I continued to scan for Aircraft Y. I told the applicant that I had not spotted the traffic and then radioed that we were on a one and one-half (1 and ½) mile final. In response, Aircraft Y stated they had us in sight. I asked them to go-around. Instead, they called they were turning final for Runway XY. When the applicant called one hundred feet (100') above minimums, I spotted Aircraft Y. At that time, I told the applicant the runway was in sight and the applicant removed his foggles. I pointed the traffic to the applicant at one to two o'clock and less than a quarter (1/4) mile and again asked Aircraft Y to execute a go-around, which he then did as he flew over the top of us at the intersection of Runway XX and Runway XY. As the applicant flared to land, the tail struck the pavement. Only then did I realize that the applicant failed to complete the before landing checklist, by extending the gear, which I, in turn, failed to observe.

Narrative: 2

On Date I was taking a multi-engine commercial check ride with Designated Pilot Examiner [DPE] Name. I was the pilot in command for the flight. After flying the maneuvers we set up for the ILS XX into ZZZ. We had a simulated engine failure during the approach. ZZZ approach approved frequency change and gave no traffic advisories. I made a 5 mile final call on the CTAF followed by a 3 mile final call. During a 2 mile final Aircraft Y made a final call for Runway XY. I still had the foggles on and the [DPE] was searching for the traffic. I announced we reached the DA, and at that time name told me to remove the foggles. He was still searching for the traffic and talking to the other aircraft. Aircraft Y announced they would go around and I continued my approach inbound for Runway XX. With all the confusion and concerns of a mid-air collision i failed to complete the before landing check. It wasn't realized that the gear was retracted until the tail struck. Distraction and pressure were two major human factors that contributed to this incident. The other aircraft distracted me from completing the before landing check. In addition, the pressure of flying the approach and completing the maneuver within standards played a role.

Synopsis

Flight crew reported distractions from a near mid air collision resulted in the landing check list not being performed and a gear up landing.

ACN: 1838807 *(36 of 50)*

Time / Day

Date : 202109

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
Airspace.Class B : ZZZ

Component : 1

Aircraft Component : Minimum Equipment List (MEL)
Aircraft Reference : X
Problem : Design

Component : 2

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

Person

Location Of Person.Aircraft : X
Location In Aircraft : General Seating Area
Reporter Organization : Air Carrier
Function.Flight Attendant : Flight Attendant (On Duty)
Qualification.Flight Attendant : Current
ASRS Report Number.Accession Number : 1838807
Human Factors : Communication Breakdown
Human Factors : Time Pressure
Human Factors : Troubleshooting
Human Factors : Workload
Human Factors : Situational Awareness
Communication Breakdown.Party1 : Flight Attendant
Communication Breakdown.Party2 : Ground Personnel

Events

Anomaly.Aircraft Equipment Problem : Critical
Anomaly.Deviation / Discrepancy - Procedural : MEL / CDL
Anomaly.Deviation / Discrepancy - Procedural : Published Material / Policy

Anomaly.Deviation / Discrepancy - Procedural : FAR
Detector.Person : Flight Attendant
Were Passengers Involved In Event : N
Result.General : Maintenance Action

Assessments

Contributing Factors / Situations : Aircraft
Contributing Factors / Situations : Incorrect / Not Installed / Unavailable Part
Contributing Factors / Situations : MEL
Contributing Factors / Situations : Procedure
Primary Problem : Incorrect / Not Installed / Unavailable Part

Narrative: 1

I was made aware by the A [Flight Attendant] that we only had three of our four required emergency checklists for both ditching and land emergency evacuations. As a crew we determined this to be a "no-go" issue, so the A requested one each of the checklists that were missing. We were initially informed that the station didn't have any. Immediately upon being informed of the situation, the Captain became very agitated and began questioning the A as to why we needed the checklists. After an explanation was attempted, the Captain, again in a very agitated manner, proceeded to get on his cell and call the Chief Pilot. As a crew, we checked the manual to confirm that we were correct in our understanding that we had to have four on board and confirmed this to be accurate, to the best of our interpretation. Someone also called for an Inflight Supervisor to come to the gate, but I am not exactly certain which of the crew made that call. A Supervisor did arrive and informed us that they were looking for one, but she had been informed that we were ok using our [tablets] in the event they couldn't find one. At no point up to this time did I feel like anyone considered this more than an annoyance and an unnecessary interruption to their abilities to board the plane for an on time departure. I was even threatened with termination of my job after I said I would not fly if we didn't have the proper equipment. We as Flight Crew are already on high alert where safety and security was concerned, we all felt like no one else cared about anything else but the flight being delayed. I have never felt less supported or more pressured by a Captain in my time of flying. When all was said and done, they found additional copies in the training room, which was what we had recommended about 20 minutes prior.

Synopsis

Flight Attendant reported a required checklist was missing and was found to be non MELable. This caused a breakdown in crew communications and a delay.

ACN: 1836639 *(37 of 50)*

Time / Day

Date : 202109
Local Time Of Day : 0601-1200

Place

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

Environment

Flight Conditions : VMC
Light : Daylight

Aircraft

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

Component

Aircraft Component : Indicating and Warning - APU
Aircraft Reference : X
Problem : Failed

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 : 1836639
Human Factors : Communication Breakdown
Human Factors : Troubleshooting
Communication Breakdown.Party1 : Flight Crew
Communication Breakdown.Party2 : Maintenance

Events

Anomaly.Aircraft Equipment Problem : Critical
Anomaly.Deviation / Discrepancy - Procedural : MEL / CDL

Anomaly.Deviation / Discrepancy - Procedural : Maintenance
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 : Maintenance Action
Result.Flight Crew : Requested ATC Assistance / Clarification

Assessments

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

Narrative: 1

Prior to departure we briefed the multiple MEL/CDL (Configuration Deviation List)/NEFs (Non-Essential for Flight) on file for this aircraft including MEL XX-XX-XX AUXILIARY POWER UNIT. While the Form sticker said BLEED APU LEAK, the APU as a whole was deferred, so we briefed and followed the procedures for MEL XX-XX-XX as opposed to MEL YY-YY-YY (which was not listed). While in cruise at approximately XA50Z the EICAS displayed caution message BLEED APU LEAK while the APU was inoperative, off and the APU BLEED button was pushed OUT. MEL XX-XX-XX makes no mention of BLEED APU LEAK being an expected EICAS message but the QRH procedure did not make sense to me in this situation. My FO (First Officer) and I decided together it would be best to contact Maintenance for further insight, so I transferred the radios and flight controls to the FO and proceeded to contact dispatch via ARINC (Commercial Radio) at around XA53Z. After a normal exchange with ZZZ1 Radio and patching into our Dispatcher I requested to talk to Maintenance and the Dispatcher responded that "Maintenance would not talk to me in flight and to follow the QRH" even after insisting several times. We proceeded to follow the remainder of the QRH and had to descend to FL300 and continue the flight with single bleed. Upon arrival into ZZZ2 I made the appropriate entry into the AML (Aircraft Maintenance Logbook) for a BLEED APU LEAK EICAS caution message. In my opinion this was a complete breakdown in CRM between the flight crew and Dispatch/Maintenance. I accept responsibility if this MEL was incorrect and should have been YY-YY-YY, but if that is the case, it has been incorrect for 10 days worth of flights. When I saw the APU deferred as a whole I considered that an acceptable solution to an APU Bleed leak, however there is no mention in XX-XX-XX of any special procedure for BLEED APU LEAK EICAS message. Furthermore, I do not have the full information in flight as to why the APU was deferred as opposed to the APU BLEED over a week prior to this event. I believe our decision to contact Maintenance for further guidance via ARINC was sound, and if they had simply answered our call for help we could have avoided descending to FL300 with a single bleed/PACK. There are numerous examples of NTSB accident reports where a safer outcome was achieved thanks to the pilots communicating with Maintenance while in flight, and throughout my training with Company I have always been trained to use all resources available. While I do not know whether Dispatch refused to talk to Maintenance or Maintenance refused to talk to me, I strongly recommend this practice of not allowing pilots to contact Maintenance during irregular situations in flight cease immediately.

Synopsis

EMB-175 Captain reported not finding a QRH procedure for an EICAS caution message and confusion over an associated MEL. The crew requested communicating with maintenance but was denied assistance while in flight.

ACN: 1824764 *(38 of 50)*

Time / Day

Date : 202107
Local Time Of Day : 0601-1200

Place

Locale Reference.Airport : ZZZ.Airport
State Reference : US
Altitude.MSL.Single Value : 17000

Aircraft

Reference : X
ATC / Advisory.TRACON : ZZZ
Aircraft Operator : Air Carrier
Make Model Name : B737-800
Crew Size.Number Of Crew : 2
Operating Under FAR Part : Part 121
Flight Plan : IFR
Mission : Passenger
Flight Phase : Climb
Airspace.Class E : ZZZ

Component

Aircraft Component : Horizontal Stabilizer Trim
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 Not Flying
Function.Flight Crew : Captain
Qualification.Flight Crew : Multiengine
Qualification.Flight Crew : Air Transport Pilot (ATP)
Qualification.Flight Crew : Instrument
ASRS Report Number.Accession Number : 1824764
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 : Pilot 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 : 1824530

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
When Detected : In-flight
Result.Flight Crew : Overcame Equipment Problem
Result.Flight Crew : Returned To Departure Airport

Assessments

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

Narrative: 1

I, the CA (Captain), was PM (Pilot Monitoring); the FO (First Officer) was PF (Pilot Flying). During the climb-out phase in level flight in mildly hazy VMC at 17,000 MSL at 290 KIAS with Autopilot B engaged the Master Caution, the "FLT CONT" item on the CA-side SAP ("6-pack"), and the right half only of the "STAB OUT OF TRIM" light illuminated. Press-to-test of the "Stab out of trim" light showed both bulbs operable. After establishing that FO was actively remaining the PF, I performed "Stabilizer Out of Trim" QRH procedure with the result that the autopilot electric trim and both pilot yokes trim switches were inoperative in both directions. I notified ATC that we had a mechanical problem that would eventually result in [requesting priority] and landing at a nearby airport, probably ZZZ, but for now we were content to remain at 17,000 slowly outbound from ZZZ while we worked the problem. Knowing we were also over landing weight, nicely under control, and still had a lot of checklists to run, I had no desire to rush into diving towards some final approach fix before we were ready to land. I performed the "Stabilizer Trim Inoperative" QRH procedure with the result that manual hand-cranked trimming was possible in either direction, albeit against unusually high resistance and with a "cogging" feel as if pushing against a powered but stalled electric motor. This was true even when the aircraft was in-trim. One pilot could move the trim using one arm, but two pilots using one arm each worked much better for anything more than a couple turns of the trim wheel. We found that one pilot could both hand-fly and crank the trim, but tended to make unwanted aileron inputs while doing so. So it was doable in a pinch but not smooth. The forces required to turn the trim wheel did not appreciably reduce as we later slowed & configured. In the course of reading & discussing or doing the "deferred items" section of the "Stabilizer Trim Inoperative" QRH I started to activate the GPWS Flap inhibit switch. The FO stopped me saying we were above the 250 KIAS speed limit at that time. That sounded familiar to me, but no such limitation is stated at that point in the QRH. Nevertheless, we chose to delay activating the GPWS flap inhibit until we had slowed to first configuration speed around 220KIAS. Discussed with [the] FO whether ZZZ was the best divert option and which runway to use. ZZZ & longer Runway XXL was the unanimous choice. By that time we were a few miles south of [the] VOR on a south-southwesterly course for ZZZZZ, roughly 100nm from ZZZ. I then performed the "Non-routine Landing" QRH procedure, alerting ATC for a return to ZZZ XXL with ARFF (Airport Rescue Firefighting) standing by. Coordinated with ATC for return via direct arrival for ILS XXL. Asked Company explicitly to alert ZZZ Approach & Tower of the intended non-standard

XXL landing. Notified Dispatch via ACARS report. Briefed FAs via intercom, and passengers via PA on the situation, my expectations, and their roles. We selected the non-standard landing Runway XXL based on that runway being much longer than the more typical landing Runway XXR. That was a minor miscue, because I/we had not considered the effect of the large displaced threshold. Which I now consider insignificant. For landings eastbound the difference is 2500 feet and would be significant. Lesson learned: the big runway length number on the 10-9 page can be significantly misleading; take the time to dig into the 10-9A details page. The fact that was our takeoff runway and within Jepp FDPro I'd used the green highlighter to extend the highlighting all the way to the takeoff threshold didn't help. What had been useful to help direct my taxi to the correct threshold for takeoff became mildly misleading when evaluating which runway to land on. Which was not a side effect I noticed at the time or had considered previously. Still working as PM I performed normal divert preparations and top-of-descent procedures: Reconfigured FMS & ACARS for ZZZ arrival, obtained ATIS, set up radios and performed approach brief, landing assessment, etc. Notified ZZZ Ops of our return by direct radio call to obtain a gate assignment. We discussed that we'd be a little above the normal max landing weight, but the already requested priority covers for that administrative requirement, and the runway available was nearly double what the QRH procedure's performance chart said was required. Performed descent checklist and before landing checklists and flows as normal. Throughout the evolution the FO kept us neatly in control, tight on the FD despite sometimes having to hand-crank the trim himself, caught a few radio calls I missed, and demonstrated overall high situational awareness and excellent systems knowledge. This is especially impressive for someone fairly new to the airplane who is just back from 6 months of furlough. During descent below 10,000 ft approaching downwind we changed control to CA as PF w FO as PM. We sighted the field while on base. During the turn-on to final I was using visual lookout primary, backed up by the LNAV purple line and the ILS. There was a moment of confusion as the ILS and LNAV came together before I was aligned with what I had thought was the landing runway. Having landed on XXR dozens (hundreds?) of times over the decades, that habit was unhelpful for a few seconds before we got fully established pointing at the correct runway. We then realized that Runway XXR is concrete and very easy to see in mildly hazy conditions while Runway XXL is asphalt and much harder to see. In fact XXL was invisible until we got closer in following the LNAV & LOC. My general habit on any landing involving parallel runways is to verbalize seeing all the relevant runways by name and explicitly saying which one I'm aligning / aligned with. E.g. "I see XXL and XXR. I'm aligning with XXL." For whatever reason that verbalization didn't occur; with sorta predictable results. Intercepted final outside intermediate fix in level flight at 3,000 ft. Configured to flaps 15 early and slowed gradually to Vapp of approximately 160KIAS before glideslope intercept at final approach fix. FO kept the airplane nicely in trim on my requests. Made a flaps 15 slightly overweight (approx. 148K#) approach and landing to a smooth touchdown on ZZZ Runway XXL just shy of the 2000ft marker. Upon stopping made a PA to reassure the passengers & remind them the safety vehicles would be seen around the airplane. ATC gave us an alternate frequency to contact ARFF on. Which surprised both of us a bit. Once we were communicating with ARFF I requested they inspect us for hot brakes or damaged tires. ARFF found normal brake temps and no tire damage. At ARFF's request I released them at that point and we taxied normally to [the] gate. Following shutdown the FO attempted to manually crank the trim to the usual post-shutdown 5 units from the 8-9 units we'd used at touchdown. At zero airspeed the trim was still "cogging" and almost as difficult to move as it had been in flight. So we left the trim at the landing setting for Maintenance's edification. Which point we discussed with the Chief Pilot who met the flight and again later with the maintenance folks who also met the flight. I made appropriate aircraft maintenance log book entries for the stab trim failure and for the overweight landing. Spoke with Dispatch by phone before leaving aircraft per FOM. The next morning I filed the required report. In all I think this

event worked out pretty close to textbook, minus the small glitches identified above. The main electric trim failing was the causal factor. Everything else is just details. 1. Subsequent research on the ground shows that activating the GPWS Flap Inhibit switch is called for in 11 different QRH procedures, and in the Flaps 15 landing procedure. Only the "One Engine Inoperative" QRH procedure and the "Flaps 15 Landing" procedures mention that limit; the other 10 QRH procedures do not. I do not know whether those differences are deliberate or an oversight. Suggest someone on the 737 fleet team look into this. If the difference is deliberate there probably ought to some verbiage available in QRH or [procedures] to explain the rationale so others don't mistakenly apply a remembered restriction where it's not intended. 2. We were both surprised to see that only half of the "Stab out of trim" annunciator illuminated. Which left us wondering at first if we had a warning system malfunction or a trim malfunction. I surmise now that the right bulb is connected to FCC (Flight Control Computer) B and the left is connected to FCC A. And that had the Captain been PF, we'd have seen the left half illuminate instead. However it works, the details of left & right are not documented in [manual] where the annunciator is described. At a minimum there should be a statement like "Only half of the annunciator may illuminate. That is still a valid indication of an out-of-trim condition." 3. Overall, from the "Stab out of trim" annunciator illuminating to touchdown was about 30 minutes. From reviewing the ACARS logs I know it was at least 28 minutes and less than 35. As the CA / PM / QRH operator I was working quickly and diligently almost the entire time to accomplish all the non-routine and normal procedures in full without hurrying. Had we turned back even a couple minutes earlier the airplane would have been approaching the airport before we were fully caught up and mentally transitioned from handling an [urgent inflight situation] to performing a normal low-stress, albeit flaps 15, landing. Given the reality that following all the procedures fully takes nearly 30 minutes, I believe we do a disservice to pilots in the sim, rushing around the traffic pattern with an engine out. That encourages hurrying, doing QRH steps without really thinking them and their implications through, etc. We fight how we train, and we're training to hurry. I question the wisdom of that. Further I question the wisdom of planned arrival fuels that only allow for approximately 30 minutes to flameout at traffic pattern altitudes. The so-called FAR "45 minute reserve" is 45 minutes at cruise, not 45 minutes at traffic pattern altitude with e.g. flaps stuck partly extended. I now conclude that performing a major QRH evolution discovered in the arrival traffic pattern while down near Company planned arrival fuels would necessitate skipping a lot of steps or giving them at best a lick and a promise. I believe it is unwise to plan arrival fuels that tightly. Yes, we commonly have additional hold and / or Dispatch fuels. But each of those may legitimately be burned in delays encountered before the [urgent situation] appears. This saves Company a lot of money on the many flights that don't turn out worst-case. But it really sucks to be the pilot who draws that short straw, and is faced with either doing a rushed job of handling the [situation] or running out of fuel. That's planning, in extremis, to fail. An industry-leading FAR 121 carrier should not be planning to fail. In extremis or otherwise.

Narrative: 2

At a level off of 17,000 ft we noticed stab out of trim light. I was the PF so it was my aircraft. The Captain ran the stab out of trim QRH checklist which lead to the QRH stab trim inoperative checklist. We did not regain electric trim. Manual trim was what we were left with. Then the non-routine QRH checklist was performed. The manual trim wheel was difficult to work for both us even when the plane was near an in trim condition. Speed was slowed to about 270kts from about 290kts then. [ATC was advised] and we planned and set up for an arrival back to ZZZ. I flew the aircraft and worked the manual trim while the CA performed checklists, set up for the arrival and approach, and the briefings. Manual trim did not become much easier until on approach when aircraft was slowed to approach speed, however even then it was difficult. The CA took the aircraft and I became the PM.

The landing was nice and smooth. Once on the ground using the manual trim wheel to reset the stab trim to 5 units was still very difficult.

Synopsis

Air carrier flight crew reported experiencing a Stabilizer Out of Trim problem during climb out. They completed the appropriate QRH checklist and performed an air turn back.

ACN: 1819346 *(39 of 50)*

Time / Day

Date : 202106
Local Time Of Day : 0001-0600

Place

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

Environment

Light : Daylight

Aircraft

Reference : X
ATC / Advisory.Ground : ZZZ
Aircraft Operator : Air Carrier
Make Model Name : B737 MAX 8
Crew Size.Number Of Crew : 2
Operating Under FAR Part : Part 121
Mission : Passenger
Flight Phase : Taxi

Person : 1

Location Of Person.Aircraft : X
Location In Aircraft : Flight Deck
Reporter Organization : Air Carrier
Function.Flight Crew : Pilot Flying
Function.Flight Crew : Captain
Qualification.Flight Crew : Multiengine
Qualification.Flight Crew : Air Transport Pilot (ATP)
Qualification.Flight Crew : Instrument
Experience.Flight Crew.Last 90 Days : 195
Experience.Flight Crew.Type : 10500
ASRS Report Number.Accession Number : 1819346
Human Factors : Workload
Human Factors : Time Pressure
Human Factors : Distraction
Human Factors : Situational Awareness

Person : 2

Location Of Person.Aircraft : X
Location In Aircraft : Flight Deck
Reporter Organization : Air Carrier
Function.Flight Crew : First Officer
Function.Flight Crew : Pilot Not Flying
Qualification.Flight Crew : Multiengine
Qualification.Flight Crew : Instrument
Qualification.Flight Crew : Air Transport Pilot (ATP)
Experience.Flight Crew.Last 90 Days : 210

Experience.Flight Crew.Type : 9500
ASRS Report Number.Accession Number : 1819354
Human Factors : Time Pressure
Human Factors : Situational Awareness
Human Factors : Distraction
Human Factors : Workload

Events

Anomaly.Flight Deck / Cabin / Aircraft Event : Other / Unknown
Anomaly.Deviation / Discrepancy - Procedural : Published Material / Policy
Detector.Person : Flight Crew
When Detected : In-flight
Result.General : None Reported / Taken

Assessments

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

Narrative: 1

This was both pilots' second flight on the MAX Aircraft since its return. We briefed a single engine taxi, in order to save gas, due to carrying an alternate in ZZZ1. We determined to start the engine once we determined what the lineup was for takeoff. As we turned the corner, approaching taxiway, we saw that we were #4, and due to the long start of the MAX, we began to start the #1 engine. This turned out to still be almost too late to start the engine and ensure 3 minutes of stabilization at idle prior to takeoff. The engine was started by the time we turned onto taxiway, but both of us were very closely monitoring the time and taxiing slow as we were now #2 for takeoff. After stabilization, we remembered that we had also talked earlier in the trip about trying to remember to do the new VNAV programming procedures in order to build habit patterns. Having a minute to go before our three-minute stabilization time, we decided to program the computer for the practice. This was one more distraction added to that of watching the engine time. About the time we finished, we were cleared for takeoff with 30 seconds to go before three minutes. We saw that we were going to be good on the time, so acknowledged the clearance, turned on the lights, took the runway and took off. Only on climbout, after having cleaned up, did we realize that we had failed to run the Before Takeoff Checklist. We immediately checked in with the Flight Attendants, who confirmed the fact that we had not notified them of the takeoff clearance as required by our flows and the checklist. Due to the length of taxi, however, they were all seated with everything stowed, and nothing unfortunate occurred. The rest of the flight went uneventfully. Distractions piled up, due to being in a somewhat unfamiliar aircraft and trying to accomplish new programming procedures for climbout. While everything was being done to try to be procedurally correct in accordance with what the Company wants done, being out of normal habit patterns caused us to miss a checklist. I would suggest that regarding the MAX, until we are all much more familiar with the timing required to start the engines with motoring and still get the three minutes, that we minimize the times that we single engine taxi, doing so only when there will be an excessive amount of ground time anticipated. Beyond that, if we do accomplish a single engine taxi, and we approach the runway without the time required, rather than focus on slowing down to get the time, simply tell Tower we need a minute to allow for the three minute and accept the delay. Further, the timing for the VNAV programming needs to be codified. It can only be accomplished after the numbers are received from ATIS which is when everything is happening quickly to get us off the

gate. It might be worth adding a "VNAV Climbout programmed" step to the Before Push or Before Taxi Checklist, to prevent distractions later on.

Narrative: 2

Second flight in the MAX 8, since its return to service. We taxied out single engine and saw the lineup was minimal for takeoff on [Runway] XXL. Began engine start, after exiting the ramp. Because of the slow engine start with the MAX, we were closely watching the timing to ensure we got three minutes after engine start. Engine was started as we turned onto taxiway, and the aircraft in front of us was cleared for takeoff. We taxied slowly, as it looked like we would make our engine warmup time with a slow taxi. We decided to load the new VNAV Takeoff Programming Procedures. Got that loaded, just as our engine time was completed and Tower cleared us for takeoff. We rolled onto the runway and had an uneventful takeoff and climbout. Because we were distracted, we failed to accomplish the Before Takeoff Checklist or ding the flight attendants. Loading of VNAV takeoff programming should be accomplished earlier than approaching the end of the runway. I'm not sure where the best time is to load the VNAV takeoff procedure, since we are very busy after we get our numbers. This would minimize distractions at a critical point in the taxi out. MAX engine start is slow. If it looked like we needed more time for engine warm up, we should not hesitate to let Tower know we need more time.

Synopsis

Flight crew flying 737 MAX aircraft reported missing the before takeoff checklist and Flight Attendant notification prior to takeoff due to engine warm up time constraints.

ACN: 1817740 *(40 of 50)*

Time / Day

Date : 202106
Local Time Of Day : 1201-1800

Place

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

Environment

Flight Conditions : IMC
Light : Daylight

Aircraft

Reference : X
Aircraft Operator : Air Carrier
Make Model Name : B737-700
Crew Size.Number Of Crew : 2
Operating Under FAR Part : Part 121
Flight Plan : IFR
Mission : Passenger
Flight Phase : Taxi

Component

Aircraft Component : Nosewheel Steering
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 : Air Transport Pilot (ATP)
Qualification.Flight Crew : Instrument
ASRS Report Number.Accession Number : 1817740
Human Factors : Confusion
Human Factors : Distraction
Human Factors : Situational Awareness
Human Factors : Time Pressure
Human Factors : Workload
Human Factors : Communication Breakdown
Communication Breakdown.Party1 : Flight Crew
Communication Breakdown.Party2 : Flight Crew

Person : 2

Location Of Person.Aircraft : X
Location In Aircraft : Flight Deck
Reporter Organization : Air Carrier
Function.Flight Crew : Captain
Function.Flight Crew : Pilot Flying
Qualification.Flight Crew : Instrument
Qualification.Flight Crew : Air Transport Pilot (ATP)
Qualification.Flight Crew : Multiengine
Experience.Flight Crew.Last 90 Days : 90
Experience.Flight Crew.Type : 90
ASRS Report Number.Accession Number : 1818059
Human Factors : Workload
Human Factors : Time Pressure
Human Factors : Situational Awareness
Human Factors : Confusion
Human Factors : Communication Breakdown
Human Factors : Distraction
Communication Breakdown.Party1 : Flight Crew
Communication Breakdown.Party2 : Ground Personnel

Events

Anomaly.Aircraft Equipment Problem : Less Severe
Anomaly.Deviation / Discrepancy - Procedural : Published Material / Policy
Anomaly.Deviation / Discrepancy - Procedural : FAR
Detector.Person : Flight Crew
Were Passengers Involved In Event : N
When Detected : Taxi
Result.Flight Crew : Became Reoriented
Result.Flight Crew : Overcame Equipment Problem
Result.Flight Crew : Returned To Gate
Result.Flight Crew : Regained Aircraft Control

Assessments

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

Narrative: 1

Pushing off gate/listening to Ground. There was a lot going on with weather approaching the field, certain departure gates shut off and others open. Push crew cleared off/weren't using headsets due to [weather hazards]. We were clearly distracted with what was going on with Ground as it was a question of starting one or both engines and whether we were delayed or departing immediately. We thought we were ready for taxi and with the frequency very busy; I called when there was a break. As the Captain powered up #2, it became immediately apparent that there was no nose wheel steering. Captain stopped the aircraft immediately and set parking brake. We were both at a loss that we had skipped the whole Before Taxi Flow/Checklist. We took a minute to discuss how we got there and knowing we had been distracted, "reset" ourselves and continued with the Before Taxi Flow and Checklist. [Suggest] Self awareness during high workload that things can unknowingly be skipped.

Narrative: 2

Pushed back and disconnected from tug. Only started one engine for departure delays due to weather at the field. As I cleared off the tug, we heard over the Ground frequency that all departure gates were closed for weather. The FO (First Officer) and I discussed our plan to taxi off ramp and wait for weather to pass. After that, I must have believed that he did the after-start flow and we did the Before Taxi Checklist. However, I was wrong. We cleared left and right and I started to move the aircraft, but immediately I knew the aircraft was not configured properly for taxi. I stopped the aircraft and started the after-push procedures again. The distraction of the weather delays got me out of my normal routine, as well as the FO's. Neither one of us trapped the errors until too late. We ended up with a return-to-gate event. While we start engines routinely and do Before Taxi Checklists several times a day, we can get distracted by outside factors. I should have delayed the discussion about weather or anything else until after the start flow and Before Taxi Checklist was complete.

Synopsis

B737 flight crew reported that complications and distractions due to weather led to the lack of proper checklist completion, resulting in the nose wheel steering being unavailable during taxi.

ACN: 1813994 *(41 of 50)*

Time / Day

Date : 202106
Local Time Of Day : 1801-2400

Place

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

Environment

Flight Conditions : VMC
Light : Night

Aircraft

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

Component

Aircraft Component : Landing Gear
Aircraft Reference : X
Problem : Improperly Operated

Person

Location Of Person.Aircraft : X
Location In Aircraft : Flight Deck
Reporter Organization : Air Carrier
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 : 1813994
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.Aircraft Equipment Problem : Less Severe
Anomaly.Deviation / Discrepancy - Procedural : Published Material / Policy

Anomaly.Deviation / Discrepancy - Procedural : FAR
Anomaly.Inflight Event / Encounter : Unstabilized Approach
Detector.Automation : Aircraft RA
Detector.Person : Flight Crew
Were Passengers Involved In Event : N
When Detected : In-flight
Result.Flight Crew : Became Reoriented
Result.Flight Crew : Regained Aircraft Control

Assessments

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

Narrative: 1

During the final segment of the approach phase on short final, we hear gear up at 960 feet RA. Captain told Pilot Monitoring to put the gear down and decided to continue to land. We decided it was safer to land rather to do the balked landing. I believe the cause of the event was fatigue and complacency. I felt a little tired and did not scan and confirm Captain checklist items that were called for. It was night time with turbulence and at a critical phase of flight were several things were happening at the same time. I need to be more aware of confirming actual checklist items at critical phases of flight and scanning everything looks good when the Captain is focused on flying the aircraft into ZZZ.

Synopsis

Air carrier First Officer reported fatigue and procedural deviations led to the landing gear not being lowered per the checklist resulting in an unstabilized approach.

ACN: 1810675 *(42 of 50)*

Time / Day

Date : 202105
Local Time Of Day : 0601-1200

Place

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

Environment

Flight Conditions : VMC
Light : Daylight

Aircraft

Reference : X
Aircraft Operator : Air Carrier
Make Model Name : B737 MAX Series Undifferentiated
Crew Size.Number Of Crew : 2
Operating Under FAR Part : Part 121
Flight Plan : IFR
Mission : Passenger
Flight Phase : Parked

Component

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

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 : Multiengine
Qualification.Flight Crew : Instrument
Qualification.Flight Crew : Air Transport Pilot (ATP)
ASRS Report Number.Accession Number : 1810675
Human Factors : Training / Qualification
Human Factors : Time Pressure
Human Factors : Situational Awareness

Events

Anomaly.Aircraft Equipment Problem : Less Severe
Anomaly.Deviation / Discrepancy - Procedural : Published Material / Policy
Were Passengers Involved In Event : N
Result.General : None Reported / Taken

Assessments

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

Narrative: 1

I was doing the Captain preflight duties as specified by the Aircraft Operating Manual (AOM). This was the first time in an actual MAX aircraft (not counting the MAX return to service training in the SIM) since the aircraft were grounded 2+ years ago. As I was completing the preflight duties, I neglected to set the autobrakes to RTO. I believe the cause of this was, the autobrake selector in the MAX is in a different position than the NexGen aircraft, specifically in the center console rather than next to the landing gear selector lever. Also, the flight paperwork was placed in such a position as to cover the autobrake selector knob. When we accomplished the Before Start Checklist, of course one of the items is "AUTOBRAKE" with a response of "RTO". I responded with the appropriate call of "RTO" purely by rote memory without actually looking at the autobrake selector. I recall looking towards the landing gear lever where I expected to see the autobrake selector and for some reason was convinced I saw it and it was set properly to RTO. We taxied out and departed uneventfully. It was only upon accomplishing the clean-up items after flap retraction that we noticed the autobrake selector was in the off position. The rest of the flight continued uneventfully.

Synopsis

B737 MAX Captain reported not activating the auto brake system for RTO when completing the before takeoff checklist.

ACN: 1802425 *(43 of 50)*

Time / Day

Date : 202104
Local Time Of Day : 1201-1800

Place

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

Environment

Light : Daylight

Aircraft

Reference : X
ATC / Advisory.Tower : ZZZ
Aircraft Operator : Air Carrier
Make Model Name : Commercial Fixed Wing
Crew Size.Number Of Crew : 2
Operating Under FAR Part : Part 121
Flight Plan : IFR
Mission : Passenger
Flight Phase : Taxi

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
Experience.Flight Crew.Last 90 Days : 96
Experience.Flight Crew.Type : 4900
ASRS Report Number.Accession Number : 1802425
Human Factors : Distraction
Human Factors : Situational Awareness
Human Factors : Time Pressure
Human Factors : Communication Breakdown
Communication Breakdown.Party1 : Flight Crew
Communication Breakdown.Party2 : Flight Crew

Events

Anomaly.Flight Deck / Cabin / Aircraft Event : Passenger Misconduct
Anomaly.Deviation / Discrepancy - Procedural : Published Material / Policy
Detector.Person : Flight Crew
When Detected : Taxi
Result.Flight Crew : Overcame Equipment Problem

Assessments

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

Narrative: 1

Pushed back from Gate X, 10 minutes late, after a Supervisor was called to the aircraft, after boarding was complete, to assist with passengers traveling with a four-year-old child. The child would not keep his/her seat belt fastened and kept removing his/her face covering. The parents had become belligerent with the flight attendants. We received a runway change just prior to pushback that would have us departing on Runway XXR verses YYL. The takeoff data for XXR included the requirement to burn off additional fuel prior to takeoff. We loaded the new takeoff data and reran the Before Push Checklist. Then we began our pushback from the gate. Knowing it would be a very short taxi to the runway, we started both engines. During the First Officer's After Start flow, I believe I interrupted his thought process by starting to voice my idea that we could taxi a short distance via [intersection] to Taxiway 1 and wait the little bit of time to burn off the additional taxi fuel. After completing the After Start flow, the First Officer did not make the "Standing by Flaps" call. Instead, we talked for a few more seconds about moving the aircraft to a spot away from the ramp so that we could burn off the additional taxi fuel. The First Officer requested taxi clearance to Taxiway [Alphabet] and notified Ground Control that we would need to hold there, to burn off fuel prior to departing. We taxied forward onto [intersection] and made the left turn onto Taxiway 1 and brought the aircraft to a stop. Once the parking brake was set, we both realized that we had not performed the Before Taxi Checklist and subsequently had not set the flaps to the Takeoff setting prior to moving the aircraft. We then set the flaps to the Takeoff setting and ran the Before Taxi Checklist. After a couple of minutes, we had burned the proper amount of fuel for the taxi and we made an uneventful departure. It was immediately clear to me that I gave too much thought to the things that had happened prior to pushback and in doing that, caused me not to focus on the required duties after pushback. I also should have allowed the First Officer to focus entirely on the after-start process before diverting his thoughts to something else.

Synopsis

Air carrier Captain reported not performing the Before Taxi Checklist and subsequently had not set the flaps to the takeoff setting prior to moving the aircraft. Reporter cited distraction from dealing with face mask issues in the cabin area may have contributed to the event.

ACN: 1784065 *(44 of 50)*

Time / Day

Date : 202101
Local Time Of Day : 1801-2400

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 : Commercial Fixed Wing
Crew Size.Number Of Crew : 2
Operating Under FAR Part : Part 121
Flight Plan : IFR
Mission : Passenger
Flight Phase : Parked

Person

Location In Aircraft : Flight Deck
Reporter Organization : Air Carrier
Function.Flight Crew : Captain
Function.Flight Crew : Pilot Flying
Qualification.Flight Crew : Instrument
Qualification.Flight Crew : Air Transport Pilot (ATP)
Qualification.Flight Crew : Multiengine
ASRS Report Number.Accession Number : 1784065

Events

Anomaly.Flight Deck / Cabin / Aircraft Event : Passenger Misconduct
Anomaly.Deviation / Discrepancy - Procedural : Published Material / Policy
Were Passengers Involved In Event : Y
When Detected.Other
Result.General : None Reported / Taken

Assessments

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

Narrative: 1

At the gate we had a passenger board without permission from gate agent, then we had a non-compliant passenger not wearing a mask. That was mitigated when gate agent came and explained to the elderly passenger that masks must be worn. On taxi out Captain and First Officer were discussing mitigation strategies if that event were to re-occurrence on taxi and failed to run pre-takeoff checklist. Cause - Distraction by pre-flight events with gate agent and non-compliance of the passenger. Remain focused on task at hand. Not replay scenarios until the debrief phase of flight.

Synopsis

Air carrier Captain reported forgetting to do the pre-takeoff checklist due to being distracted by a passenger being boarded without permission and another passenger not complying with face mask policy.

ACN: 1765654 *(45 of 50)*

Time / Day

Date : 202010
Local Time Of Day : 0001-0600

Place

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

Environment

Flight Conditions : VMC
Light : Daylight

Aircraft

Reference : X
ATC / Advisory.Tower : ZZZ
Aircraft Operator : Air Carrier
Make Model Name : B767-300 and 300 ER
Crew Size.Number Of Crew : 2
Operating Under FAR Part : Part 91
Flight Plan : IFR
Mission : Ferry / Re-Positioning
Nav In Use : FMS Or FMC
Flight Phase : Takeoff / Launch
Route In Use : Vectors
Airspace.Class B : ZZZ

Component

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

Person

Reference : 1
Location Of Person.Aircraft : X
Location In Aircraft : Flight Deck
Reporter Organization : Air Carrier
Function.Flight Crew : Pilot Flying
Function.Flight Crew : Captain
Qualification.Flight Crew : Air Transport Pilot (ATP)
Qualification.Flight Crew : Instrument
Qualification.Flight Crew : Multiengine
ASRS Report Number.Accession Number : 1765654

Events

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

Result.General : Flight Cancelled / Delayed
Result.General : Maintenance Action
Result.Flight Crew : Returned To Departure Airport
Result.Flight Crew : FLC Overrode Automation
Result.Air Traffic Control : Provided Assistance

Assessments

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

Narrative: 1

After takeoff EICAS message IAS DISAGREE and other associated messages. Erroneous airspeed indications. Blocked Captains pitot tube. Manually flew the aircraft. Returned to ZZZ after completing checklist.

While conducting the checklist, the checklist says to refer to Flight with Unreliable Airspeed table in the performance inflight chapter. During this emergency, I was flying the airplane manually and was not able to assist the First Officer much with the checklist. If the table in the performance inflight chapter could be incorporated into the emergency checklist, this would reduce much of the stress of the situation and allow for a safer operation in an emergency situation.

Synopsis

After returning to departure airport with unreliable airspeed indication, the Captain suggested moving necessary charts to the relevant portion of the QRH for ease in location and use.

ACN: 1757535 *(46 of 50)*

Time / Day

Date : 202008
Local Time Of Day : 1201-1800

Place

Locale Reference.ATC Facility : ZZZZ.ARTCC
State Reference : FO
Altitude.MSL.Single Value : 2000

Environment

Flight Conditions : VMC
Light : Dusk

Aircraft

Reference : X
Aircraft Operator : Air Carrier
Make Model Name : B747-400
Crew Size.Number Of Crew : 2
Operating Under FAR Part : Part 121
Flight Plan : IFR
Mission : Cargo / Freight / Delivery
Flight Phase : Initial Approach
Route In Use : Vectors

Component

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

Person

Reference : 1
Location Of Person.Aircraft : X
Location In Aircraft : Flight Deck
Reporter Organization : Air Carrier
Function.Flight Crew : Pilot 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 : 1757535

Events

Anomaly.Aircraft Equipment Problem : Critical
Anomaly.Deviation / Discrepancy - Procedural : Maintenance
Anomaly.Deviation / Discrepancy - Procedural : FAR
Anomaly.Deviation / Discrepancy - Procedural : Published Material / Policy
Detector.Person : Flight Crew
When Detected : In-flight

Result.General : Maintenance Action
Result.General : Flight Cancelled / Delayed
Result.Flight Crew : FLC Overrode Automation
Result.Flight Crew : Executed Go Around / Missed Approach

Assessments

Contributing Factors / Situations : Aircraft
Contributing Factors / Situations : Company Policy
Contributing Factors / Situations : MEL
Contributing Factors / Situations : Procedure
Primary Problem : Company Policy

Narrative: 1

ZZZ: Departed from runway XXL. On the approach into ZZZ1 RNP X RWY XX, PF (Pilot Flying) called for gear down, flaps 20. Immediately PM (Pilot Monitoring) extended the gear lever there was a warning horn and right body gear disagreed alert followed by an EICAS message "Equipment Cooling", the second time message showed up during the flight. At 1,000 feet both pilots called for "Go Around". PF requested for vector from ATC for an immediate landing ILS runway XX. PM worked the QRH read the gear disagreed checklist. Equipment Cooling non-normal checklist was completed earlier during cruise. The message went away both times. Please note there are lots of write ups on A/C X. (LE Flaps, Outflow Valve, Thrust Reverser, W&B Indication System, Cockpit Smoke Vision, Equipment Cooling, ATC failure & Landing Gear Config warning.). These were all the numerous write ups on the aircraft from our flight and previous flights.

I suggested the Aircraft should be AOG with immediate effect and the above listed malfunctions should be rectified prior to the aircraft being released for operations. This is a classic example of chains of error, that should be broken before leading to an incident or accident. Thank you.

Synopsis

First Officer reported two EICAS messages on final, causing a go around to allow time to run the QRH, landing safely on next approach.

ACN: 1757193 *(47 of 50)*

Time / Day

Date : 202008
Local Time Of Day : 0601-1200

Environment

Flight Conditions : VMC
Light : Daylight

Aircraft

Reference : X
ATC / Advisory.TRACON : ZZZ
Aircraft Operator : Air Carrier
Make Model Name : B737-800
Crew Size.Number Of Crew : 2
Operating Under FAR Part : Part 121
Flight Plan : IFR
Mission : Passenger
Nav In Use : FMS Or FMC
Flight Phase : Climb
Route In Use : Vectors
Airspace.Class B : ZZZ

Component

Aircraft Component : Autopilot
Aircraft Reference : X
Problem : Malfunctioning

Person

Reference : 1
Location Of Person.Aircraft : X
Location In Aircraft : Flight Deck
Reporter Organization : Air Carrier
Function.Flight Crew : Pilot Flying
Function.Flight Crew : Captain
Qualification.Flight Crew : Air Transport Pilot (ATP)
Qualification.Flight Crew : Instrument
Qualification.Flight Crew : Multiengine
ASRS Report Number.Accession Number : 1757193
Human Factors : Time Pressure

Events

Anomaly.Aircraft Equipment Problem : Less Severe
Anomaly.Deviation / Discrepancy - Procedural : Maintenance
Anomaly.Deviation / Discrepancy - Procedural : Published Material / Policy
Detector.Person : Flight Crew
When Detected : In-flight
Result.General : Flight Cancelled / Delayed
Result.Flight Crew : Regained Aircraft Control
Result.Flight Crew : FLC Overrode Automation

Result.Air Traffic Control : Provided Assistance
Result.Aircraft : Equipment Problem Dissipated

Assessments

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

Narrative: 1

Departing ZZZ, neither autopilot would engage during climb out. The first officer checked circuit breakers, reset the glareshield autopilot disconnect bar, and we tested each yoke disconnect button but neither autopilot would still engage. No QRH procedure could be found. We reported the autopilot issue to ATC and requested to stop our climb at an altitude below RVSM. Next we called ZZZ Maintenance and their suggestion to reset the stab trim autopilot cutout switches successfully restored autopilot function, and flight continued normally at normal cruise altitude.

This was the first flight of the day for both pilots and the first flight in several days for the aircraft. Preflight distractions included a previously unseen route error that kept wanting to reload from the CPDLC auto load and update. During pushback, a ground crew wing walker wanted us to abort our number 2 engine start because she felt the tug driver had cleared us to start sooner than she wanted the engines started. After pushback ATC informed us we only had 3 minutes to taxi to make our departure slot time.

Suggest adding "Stab Trim Cutout Switches" to the Before Start Checklist, and/or including a QRH Procedure for "Neither Autopilot Will Engage."

Synopsis

B737 Captain reported auto pilot not engaging as required and non QRH procedures were used to get autopilot to function correctly.

ACN: 1756780 *(48 of 50)*

Time / Day

Date : 202008
Local Time Of Day : 0601-1200

Place

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

Environment

Light : Daylight

Aircraft

Reference : X
ATC / Advisory.Tower : ZZZ
Aircraft Operator : Air Carrier
Make Model Name : B737-700
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
Airspace.Class B : ZZZ

Component

Aircraft Component : Flap/Slat Indication
Aircraft Reference : X
Problem : Malfunctioning

Person : 1

Reference : 1
Location Of Person.Aircraft : X
Location In Aircraft : Flight Deck
Reporter Organization : Air Carrier
Function.Flight Crew : Captain
Function.Flight Crew : Pilot Not Flying
Qualification.Flight Crew : Air Transport Pilot (ATP)
Experience.Flight Crew.Last 90 Days : 100
ASRS Report Number.Accession Number : 1756780

Person : 2

Reference : 2
Location Of Person.Aircraft : X
Location In Aircraft : Flight Deck
Reporter Organization : Air Carrier
Function.Flight Crew : First Officer
Function.Flight Crew : Pilot Flying

Qualification.Flight Crew : Air Transport Pilot (ATP)
Experience.Flight Crew.Last 90 Days : 250
Experience.Flight Crew.Type : 2804
ASRS Report Number.Accession Number : 1756959
Human Factors : Troubleshooting

Events

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

Assessments

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

Narrative: 1

On approach to ZZZ XXL, First Officer called for Landing Checklist. We noticed no illuminated green "leading edge flaps extended". We did go-around and got vectors in the area at 3,000 feet while working the problem. I could not find a QRH (Quick Reference Handbook) checklist for the omission of that light. The FO (First Officer) and I exchanged controls. He was also unable to find a QRH checklist for this problem. While being vectored we extended the flaps and could visually see by looking out our windows that the leading edge flaps were indeed extending normally, and that it was an indication problem. The following lights were not illuminating at all. Leading Edge Flap Transit, Leading Edge Flap Extend, and the overhead Leading Edge devices indication lights. After triple checking no checklists would cover our problem, and after we verified the leading edge devices were fully extended, we made a normal flaps 30 uneventful landing. After landing the PSEU (Proximity Switch Electronics Unit) light illuminated.

Narrative: 2

As the Pilot Flying (PF) I called for flaps 30 and the Before Landing Checklist on the visual approach to XXL into ZZZ. The Captain (Pilot Monitoring) ran the checklist and we discovered that the Leading Edge Flap Extend green light was not illuminated. We executed a go-around to give ourselves more time to assess the situation. At 3,000 feet and after ATC gave us vectors, the Captain proceeded to find the appropriate checklist in the QRH. He could not find any checklist for LE FLAPS EXT green light not illuminated. He then asked if I could look and I transferred aircraft control to the Captain. I looked and didn't find any checklist addressing our exact condition. At that time, I did a push to test on the LE FLAPS EXT (Green light), LE FLAPS TRANSIT (Amber light) and LE devices annunciator panel and all tested good. The Captain called for Flaps 1 and we verified visually by looking out the window that the LE Flaps did in fact deploy and the flap position indicator showed flaps 1, but LE FLAPS EXT (Green light), LE FLAPS TRANSIT (Amber light) and LE devices annunciator panel did not illuminate. I looked through the QRH again to see if we had missed anything and the closest checklist we could think was the LE FLAPS TRANSIT (Amber Light) but that light was not illuminated, so we elected to not use that checklist. Also searched the non-normal performance data to see if there was an option to select for our condition and there was not. After discussing together and visually confirming the LE flaps deployed, and no roll or yaw was felt in the controls and it correctly showed on the flaps position indicator, we elected to land normally with flaps 30. After landing during roll out, the PSEU illuminated. Maybe a QRH addressing this particular

condition. In looking back, I believe that we could have used our commuting pilot in the cabin to visually check the inboard LE Flaps and Trailing Edge flaps were deployed. Also contacted Dispatch and got Maintenance to get another perspective on the indications we were seeing in the cockpit.

Synopsis

B737-700 flight crew could not find checklist for Leading Edge Devices Not Extended.

ACN: 1748126 *(49 of 50)*

Time / Day

Date : 202006
Local Time Of Day : 1801-2400

Place

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

Environment

Light : Daylight

Aircraft

Reference : X
ATC / Advisory.Tower : ZZZ
Aircraft Operator : Air Carrier
Make Model Name : Commercial Fixed Wing
Crew Size.Number Of Crew : 2
Operating Under FAR Part : Part 121
Flight Plan : IFR
Mission : Passenger
Flight Phase : Taxi

Person

Reference : 1
Location Of Person.Aircraft : X
Location In Aircraft : Flight Deck
Reporter Organization : Air Carrier
Function.Flight Crew : First Officer
Function.Flight Crew : Pilot Not Flying
Qualification.Flight Crew : Instrument
Qualification.Flight Crew : Air Transport Pilot (ATP)
Qualification.Flight Crew : Multiengine
Experience.Flight Crew.Last 90 Days : 21
Experience.Flight Crew.Type : 1452
ASRS Report Number.Accession Number : 1748126
Human Factors : Distraction
Human Factors : Training / Qualification

Events

Anomaly.Deviation / Discrepancy - Procedural : Published Material / Policy
Detector.Person : Flight Crew
When Detected : Taxi
Result.Flight Crew : Overcame Equipment Problem

Assessments

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

Contributing Factors / Situations : Procedure
Primary Problem : Human Factors

Narrative: 1

After pushback and engine start, my before taxi was interrupted when I noticed the squawk was not inputted. I left the flow to enter the PDC and retrieve the code. I had some difficulty with the box, and it took longer than expected. Once the code was retrieved and entered, my concentration was interrupted by ground movement off our right wing that I was monitoring. Then Ground asked us if we were ready to taxi and I said yes. Once taxiing, we saw that the flaps were up. We stopped short of the runway and accomplished the flow checklist and looked for other errors we could have missed.
I was definitely rusty having not flown much in the previous 30-90 days. So, finish a flow, accomplish the checklist, and slow down when things are busy.

Synopsis

Air carrier First Officer reported taxiing out to the runway and finding items were missed during their before taxi flow checklist.

ACN: 1740617 *(50 of 50)*

Time / Day

Date : 202004
Local Time Of Day : 1201-1800

Place

Altitude.MSL.Single Value : 1000

Environment

Flight Conditions : VMC
Light : Daylight

Aircraft

Reference : X
ATC / Advisory.TRACON : ZZZ
Aircraft Operator : Air Carrier
Make Model Name : B737-800
Crew Size.Number Of Crew : 2
Operating Under FAR Part : Part 121
Flight Plan : IFR
Mission : Passenger
Nav In Use : FMS Or FMC
Flight Phase : Takeoff / Launch
Route In Use : Vectors
Airspace.Class B : ZZZ

Component

Aircraft Component : Horizontal Stabilizer Trim
Aircraft Reference : X
Problem : Malfunctioning

Person

Reference : 1
Location Of Person.Aircraft : X
Location In Aircraft : Flight Deck
Reporter Organization : Air Carrier
Function.Flight Crew : Captain
Function.Flight Crew : Pilot Flying
Qualification.Flight Crew : Air Transport Pilot (ATP)
Qualification.Flight Crew : Multiengine
Qualification.Flight Crew : Instrument
Experience.Flight Crew.Last 90 Days : 97
Experience.Flight Crew.Type : 12000
ASRS Report Number.Accession Number : 1740617
Human Factors : Communication Breakdown
Communication Breakdown.Party1 : Flight Crew
Communication Breakdown.Party2 : Flight Crew

Events

Anomaly.Aircraft Equipment Problem : Critical
Anomaly.Deviation / Discrepancy - Procedural : Published Material / Policy
Detector.Person : Flight Crew
When Detected : In-flight
Result.General : Flight Cancelled / Delayed
Result.General : Maintenance Action
Result.Flight Crew : Overcame Equipment Problem
Result.Flight Crew : Landed in Emergency Condition
Result.Air Traffic Control : Provided Assistance

Assessments

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

Narrative: 1

Departed ZZZ Runway XX, Flaps 5. Reaching 1,000 ft., I called for flaps 1 and subsequently attempted activation of the Electric Trim switch. Left yoke stab trim did not function. Asked First Officer to try his yoke trim switch. Neither trim switches functioned. Ran QRH procedure for Stabilizer Trim Inoperative. ATC was notified of flight control problem and [priority handling requested]. A large amount of questions were asked during the initial run of the QRH. The QRH gives a condition: Both of these occur:

Loss of electric trim through autopilot.
Loss of electric trim through the control switches.

As we got vectored off the departure procedure and distracted by ATC questions pertaining to the nature of our [situation], I didn't fully hear the initial reading of the condition calling for both of the above. As I had a heavy yoke from the takeoff configuration, I choose not to negative G unload the aircraft and turn on the autopilot. By not turning on the autopilot, I wasn't able to fully comply with the QRH conditions. QRH was continued and Stab Trim Cutout switches were selected to cutout. With the Cutout switches in cutout, the autopilot was not available.

During our debrief and review of the QRH procedures it was discovered that the QRH called for loss of both items, loss of autopilot and flight control switches.

Synopsis

B737 Captain reported failure to fully comply with QRH procedure following a pitch trim failure.