Report Set Description ........................................ A sampling of reports referencing a bird or animal related strike incidents.

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

Date of Update.....................................................February 7, 2024

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

Records within this Report Set have been screened to assure their relevance to the topic.
MEMORANDUM FOR: Recipients of Aviation Safety Reporting System Data

SUBJECT: Data Derived from ASRS Reports

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

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

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

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

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

Becky L. Hooey, Director
NASA Aviation Safety Reporting System
CAVEAT REGARDING USE OF ASRS DATA

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

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

One thing that can be known from ASRS data is that the number of reports received concerning specific event types represents the lower measure of the true number of such events that are occurring. For example, if ASRS receives 881 reports of track deviations in 2010 (this number is purely hypothetical), then it can be known with some certainty that at least 881 such events have occurred in 2010. With these statistical limitations in mind, we believe that the real power of ASRS data is the qualitative information contained in report narratives. The pilots, controllers, and others who report tell us about aviation safety incidents and situations in detail – explaining what happened, and more importantly, why it happened. Using report narratives effectively requires an extra measure of study, but the knowledge derived is well worth the added effort.
Report Synopses
<table>
<thead>
<tr>
<th>ACN: 2033094 (1 of 50)</th>
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</thead>
<tbody>
<tr>
<td><strong>Synopsis</strong></td>
<td>Air carrier flight crew reported bird strike on takeoff climb. Returned to departure airport and landed uneventfully.</td>
</tr>
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<tr>
<th>ACN: 2032581 (2 of 50)</th>
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<tbody>
<tr>
<td><strong>Synopsis</strong></td>
<td>B737-700 crew reported a bird strike just after rotation resulting in an engine vibration of 5.0 units. Crew ran checklists and returned to departure airport.</td>
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<tr>
<th>ACN: 2027734 (3 of 50)</th>
<th></th>
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<tbody>
<tr>
<td><strong>Synopsis</strong></td>
<td>CRJ-900 flight crew reported being struck by several birds just after liftoff. The pilots returned to the departure airport. The aircraft had systems that were malfunctioning after the bird strike.</td>
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<tr>
<th>ACN: 2026233 (4 of 50)</th>
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<tbody>
<tr>
<td><strong>Synopsis</strong></td>
<td>Recreational/Hobbyist UAS pilot reported a hawk attacked their UAS causing it to crash.</td>
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<tr>
<th>ACN: 2023578 (5 of 50)</th>
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<tbody>
<tr>
<td><strong>Synopsis</strong></td>
<td>Air carrier Captain reported a possible bird strike during climb after takeoff and a report of momentary flame from left engine visible from the cabin. The Captain returned to the departure airport and landed safely.</td>
</tr>
</tbody>
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<thead>
<tr>
<th>ACN: 2020901 (6 of 50)</th>
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</thead>
<tbody>
<tr>
<td><strong>Synopsis</strong></td>
<td>PA-28 flight Instructor reported that while their student was performing a solo landing, they had a bird strike on final approach. During landing, the student lost aircraft control resulting in a runway excursion.</td>
</tr>
</tbody>
</table>
ACN: 2020439 (7 of 50)

Synopsis
B767-300 crew reported a bird strike prior to V1, causing high vibration readings on engine. Crew returned to departure airport.

ACN: 2004737 (8 of 50)

Synopsis
Air carrier flight crew reported a bird strike during approach which resulted in a strong odor throughout the aircraft. The flight crew completed a safe landing with the ground personnel providing appropriate support.

ACN: 2001576 (9 of 50)

Synopsis
B737 flight crew reported they refused an aircraft after finding what appeared to be a bird strike in one of the engines.

ACN: 2000882 (10 of 50)

Synopsis
A319 flight crew reported an inflight shutdown of engine #1 due to the indication of fire in the engine caused by a bird strike. The flight crew then performed an air turnback.

ACN: 1998787 (11 of 50)

Synopsis
B737 First Officer reported receiving an oil filter bypass warning on the number one engine during climb out. A diversion was initiated resulting in a safe landing.

ACN: 1996768 (12 of 50)

Synopsis
PA-28 pilot reported hitting small animal on runway during landing rollout.
ACN: 1994982  (13 of 50)

Synopsis
B737-800 Captain reported a bird strike after take-off. Captain’s airspeed became unreliable and both EECs were lost requiring a return to the departure airport.

ACN: 1982822  (14 of 50)

Synopsis
Air carrier Ramp Lead reported mechanics started an engine with ramp personnel and equipment in close proximity.

ACN: 1976741  (15 of 50)

Synopsis
ERJ-190 Pilot reported the engines would not shut down after gate arrival. Both FADECs had failed and allowed the engine to go into reverse during check list procedures for abnormal shut down.

ACN: 1962581  (16 of 50)

Synopsis
B737 MAX 8 flight crew reported a Fuel Imbalance condition in cruise. The flight crew ran the QRH and Check lists and performed an in flight shut down of the #1 Engine for a Fuel Leak. The flight crew diverted to the nearest suitable airport.

ACN: 1960969  (17 of 50)

Synopsis
Air carrier Captain reported Ground Personnel approached the aircraft and opened the Forward Cargo Door prior to engine shut down. There were no injuries.

ACN: 1959506  (18 of 50)

Synopsis
B737-800 Captain reported Ramp Personnel were in the Gate Safety Area while taxiing in. The Captain stopped until the Ramp Personnel exited the area. As The Captain began to taxi forward, the same Ramp Agent moved back into the Safety Area. Again, the Captain stopped taxiing and waited for the Ramp Agent moved, then continued to park at the gate.

**ACN: 1955902 (19 of 50)**

**Synopsis**
Maintenance Technician reported a ground conflict during taxi due to non-adherence to SOP.

**ACN: 1942706 (20 of 50)**

**Synopsis**
B767 Flight Crew reported a bird strike during takeoff roll resulted in inability to raise the landing gear so they returned to the airport.

**ACN: 1942429 (21 of 50)**

**Synopsis**
Technicians reported not following procedures caused an aircraft to collide with a tug during towing operations.

**ACN: 1942145 (22 of 50)**

**Synopsis**
Air Carrier Flight Crew flying B737 aircraft reported bird ingestion into number one engine on takeoff rotation.

**ACN: 1937796 (23 of 50)**

**Synopsis**
Jet pilot reported a near collision just before landing with a deer on the runway at OWD airport and performed a go-around.
Synopsis
A Flight Instructor reported "a bird had struck the canopy of the aircraft causing the window on the pilot's side to come off of the plastic rails and into the cabin."

ACN: 1935539  (25 of 50)

Synopsis
8G CBC Pilot reported failure to read NOTAM and flew through an area of skydiving activity resulted in NMAC with a skydiver.

ACN: 1935051  (26 of 50)

Synopsis
GA pilot reported while on approach a bird strike penetrated the windshield and resulted in considerable noise and wind but pilot made a safe landing.

ACN: 1934579  (27 of 50)

Synopsis
Air carrier Ground Personal reported the Captain released the brakes after pushback without any communication. The ground person states their hand was nearly caught between the tow bar and strut when the aircraft moved.

ACN: 1933727  (28 of 50)

Synopsis
A321 pilot reported a bird strike on departure caused a fumes event and a return to the airport for an overweight landing.

ACN: 1933064  (29 of 50)

Synopsis
GA pilot reported a NMAC with a skydiving aircraft and skydivers during final approach to a non-towered airport requiring evasive action to avoid hitting the skydivers.
Synopsis
A320 Flight Crew reported a bird strike during takeoff resulting in a crack on the First Officer's lower front edge window. The flight crew informed ATC and Dispatch of the situation and decided to return to the departure airport.

ACN: 1932605 (31 of 50)

Synopsis
B777 First Officers reported a critical ground conflict after a miscommunication with the push crew. The pilots thought they were disconnected and clear to start the taxi however the ground personal on the headset was still connected to the aircraft. An immediate stop was performed with no injuries.

ACN: 1929042 (32 of 50)

Synopsis
B777 flight crew reported they released their brakes while parked at the gate due to a hot brakes EICAS and the aircraft rolled several inches while a Maintenance Technician was servicing the landing gear.

ACN: 1923961 (33 of 50)

Synopsis
Captain reported a bird was ingested by the right engine, resulting in engine damage and a rejected take off. The flight crew taxied back to the ramp and turned the aircraft over to Maintenance for repair.

ACN: 1921902 (34 of 50)

Synopsis
Air Carrier Flight Crew reported a bird strike on departure which resulted in engine damage and a return to departure airport.

ACN: 1921604 (35 of 50)

Synopsis
Flight Instructor reported the need for evasive action during landing to avoid a maintenance worker on the runway.
ACN: 1919171 (36 of 50)

Synopsis
Air Carrier Captain reported they received a momentary "obstacle" warning which they overcame by overriding the automation.

ACN: 1908806 (37 of 50)

Synopsis
Twin Engine Pilot reported while landing at a non-towered airport a deer darted onto the runway. The deer hit the aircraft and passed under the gear and aircraft. The deer did not survive and the aircraft underwent maintenance inspection.

ACN: 1906479 (38 of 50)

Synopsis
Captain reported animals and an airport vehicle on the intended landing runway. ATC directed a missed approach to a different runway.

ACN: 1900801 (39 of 50)

Synopsis
Skydive Pilot reported rejecting a takeoff due to an animal crossing the runway resulting in a runway excursion.

ACN: 1897871 (40 of 50)

Synopsis
Flight Crew reported a family of Canadian Geese on the runway during landing rollout.

ACN: 1897807 (41 of 50)

Synopsis
B737 Flight Crew reported a bird strike right after takeoff, resulting in an angle of attack vane to shear off.
<table>
<thead>
<tr>
<th>ACN: 1897774 (42 of 50)</th>
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<tbody>
<tr>
<td><strong>Synopsis</strong></td>
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<tr>
<td>Air Carrier Captain reported a Canadian Goose bird strike after takeoff. The collision caused the First Officer's static system to fail. The Captain asked for and was given priority handling to return to the airport.</td>
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<tr>
<th>ACN: 1894694 (43 of 50)</th>
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<tr>
<td><strong>Synopsis</strong></td>
</tr>
<tr>
<td>PA28R Pilot reported engine compartment fire and gear up landing.</td>
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<tr>
<th>ACN: 1893297 (44 of 50)</th>
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<tbody>
<tr>
<td><strong>Synopsis</strong></td>
</tr>
<tr>
<td>B737 Flight Crew reported two large birds hit the nose cone during departure, resulting in an airspeed disagree message. The Flight Crew completed an air turn back to landing.</td>
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<tr>
<th>ACN: 1892714 (45 of 50)</th>
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<tbody>
<tr>
<td><strong>Synopsis</strong></td>
</tr>
<tr>
<td>Air Carrier Flight Attendant reported a bird strike during landing. Flight crew executed a missed approach and returned for a safe landing.</td>
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<tr>
<th>ACN: 1892471 (46 of 50)</th>
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<tbody>
<tr>
<td><strong>Synopsis</strong></td>
</tr>
<tr>
<td>EMB ERJ Flight Crew reported a leading edge slat failure on approach after a bird strike. The flight crew elected to perform a go around and returned to land at destination airport.</td>
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<tr>
<th>ACN: 1889558 (47 of 50)</th>
</tr>
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<tbody>
<tr>
<td><strong>Synopsis</strong></td>
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</tbody>
</table>
G280 First Officer reported multiple rejected takeoffs while attempting a maintenance check flight. The Flight Crew taxied to an FBO for parking and discovered a large bumble bee obstructing the pitot tube.

**ACN: 1883849 (48 of 50)**

**Synopsis**

UAS Pilot reported that while conducting a mission with the assistance of a visual observer a flock of birds flew towards the UAS and one struck the UAS causing a crash.

**ACN: 1872912 (49 of 50)**

**Synopsis**

Corporate Captain reported hitting a bird and then having to deviate.

**ACN: 1871513 (50 of 50)**

**Synopsis**

B737 flight crew reported a bird strike on takeoff had sheared off the Angle of Attack vane resulting in a loss of airspeed and altitude information and a return to the departure airport.
Report Narratives
ACN: 2033094 (1 of 50)

Time / Day
Date: 202309
Local Time Of Day: 1201-1800

Place
Locale Reference.ATC Facility: ZZZ.Tower
State Reference: US
Altitude.MSL.Single Value: 500

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
Flight Phase: Climb
Airspace.Class C: ZZZ

Component
Aircraft Component: Turbine Engine

Person: 1
Location Of Person.Aircraft: X
Location In Aircraft: Flight Deck
Reporter Organization: Air Carrier
Function.Flight Crew: Pilot Not Flying
Function.Flight Crew: First Officer
Qualification.Flight Crew: Multiengine
Qualification.Flight Crew: Air Transport Pilot (ATP)
Experience.Flight Crew.Last 90 Days: 130
Experience.Flight Crew.Type: 6420
ASRS Report Number.Accession Number: 2033094

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
Events

Anomaly.Aircraft Equipment Problem : Critical
Anomaly.Inflight Event / Encounter : Bird / Animal
Detector.Person : Flight Crew
When Detected : In-flight
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
Result.Aircraft : Aircraft Damaged

Assessments

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

Narrative: 1

While operating Flight ZZZ-ZZZ1 we encountered a bird strike on the Number 1 Engine during initial climb. We push off the gate on time and proceeded to taxi to Runway XXR. Upon reaching the runway, we completed before takeoff checklist and took off at (XA0). On climb out approximately 500 ft. MSL we hit a large bird on the Number #1 Engine. I noticed the roll back on the N1 with about 5 to 6 compressor stalls. Captain immediately reduced power to about 60% N1 and engine continue to operate normally. ATC was busy talking so we squawked and were able to advise ATC and requested vectors back for landing. We discussed our options including running the engine failure and/or severe damage checklist but since the engine was operating, we decided not to. We did run performance numbers for a Flaps 15 landing as a precaution. We requested about a 10-15 mile final to allow us to string the approach and do the necessary briefings including the overweight landing and brake cooling info once on the ground. Approach and landing were uneventful. We exited the runway and had the Fire Department Crew inspect the engine before proceeding to the gate.

Narrative: 2

We took off on Runway XXR at ZZZ. At about 500' AGL as we were making a turn to our assigned heading of 210, we took a bird in the #1 Engine. We heard a loud thud, then the #1 Engine rolled back momentarily, then had 4 to 5 compressor stalls, I thought we were going to lose it, so I reduced power to about 60% N1 and the compressor stalls ceased. We continued a turn, Tower was busy, so we squawked on the transponder. When he asked, we told Tower what happened, was [requested priority handling], and would be returning. He gave us an initial heading and altitude. The #1 Engine continued to run smooth at the reduced power. There was a burnt burn smell in cockpit and cabin. The First Officer and I discussed our options and decided not to shut it down. We continued our vectors for about a 15-mile final. We ran landing data for a Flaps 15 in case the engine decided later to quit. We made a normal touchdown and stopped momentarily for CFR (Crash Fire Rescue) to do a quick visual inspection. They confirmed debris or stains on
engine cowl. After two minutes or so we shut down #1 Engine, then continued to the gate. We ran brake cooling data while taxing to gate and it said MQTW not exceeded. At the gate we notified Dispatch, Maintenance Control, Dispatch Manager, and ZZZ Tower had requested a call. Logbook entries were made for engine, and overweight landing. Suggestion: Paint aircraft like an owl.

Synopsis
Air carrier flight crew reported bird strike on takeoff climb. Returned to departure airport and landed uneventfully.
Time / Day
Date: 202309
Local Time Of Day: 1801-2400

Place
Locale Reference. ATC Facility: ZZZ. Tower
State Reference: US
Altitude. MSL. Single Value: 50

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
Flight Phase: Takeoff / Launch

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
ASRS Report Number. Accession Number: 2032581

Person: 2
Location Of Person. Aircraft: X
Location In Aircraft: Flight Deck
Reporter Organization: Air Carrier
Function. Flight Crew: Pilot Not Flying
Function. Flight Crew: First Officer
Qualification. Flight Crew: Air Transport Pilot (ATP)
Qualification. Flight Crew: Multiengine
Events
Anomaly.Aircraft Equipment Problem : Critical
Anomaly.Inflight Event / Encounter : Bird / Animal
Detector.Person : Flight Crew
When Detected : In-flight
Result.General : Maintenance Action
Result.General : Flight Cancelled / Delayed
Result.Flight Crew : Returned To Departure Airport
Result.Aircraft : Aircraft Damaged

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

Narrative: 1
Hello, while taking off on Runway XXL in ZZZ during rotation the Number 2 Engine ingested a bird. The engine reached a vibration of 5.0 and we ran the appropriate QRH and normal checklists. After contacting Dispatch and Maintenance we decided to uneventfully return to ZZZ. We inspected the engine at the gate seeing 2 fan blades bent.

Narrative: 2
Bird strike during takeoff from Runway XXL. Right engine indicated in excess of 5.0. Complied with QRH. Coordinated with Dispatch, Maintenance and Ops. Returned to ZZZ. No adverse Passenger reaction noted. No injuries to Passengers or Crew.

Synopsis
B737-700 crew reported a bird strike just after rotation resulting in an engine vibration of 5.0 units. Crew ran checklists and returned to departure airport.
Time / Day
Date: 202308
Local Time Of Day: 1201-1800

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

Aircraft
Reference: X
ATC / Advisory.Tower: ZZZ
Aircraft Operator: Air Carrier
Make Model Name: Regional Jet 900 (CRJ900)
Crew Size.Number Of Crew: 2
Operating Under FAR Part: Part 121
Flight Plan: IFR
Mission: Passenger
Flight Phase: Takeoff / Launch
Airspace.Class C: ZZZ

Component: 1
Aircraft Component: Stall Protection System
Aircraft Reference: X
Problem: Malfunctioning

Component: 2
Aircraft Component: Rudder Feel System
Aircraft Reference: X
Problem: Malfunctioning

Component: 3
Aircraft Component: Attitude Indicator(Gyro/Horizon/ADI)
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: Flight Instructor
ASRS Report Number.Accession Number: 2027734
Human Factors: Workload
Human Factors: Time Pressure
**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
- **ASRS Report Number\: Accession Number**: 2027736
- **Human Factors**: Workload
- **Human Factors**: Time Pressure

**Events**
- **Anomaly\: Aircraft Equipment Problem**: Critical
- **Anomaly\: Inflight Event / Encounter**: Bird / Animal
- **Detector\: Person**: Flight Crew
- **When Detected**: In-flight
- **Result\: Flight Crew**: Overcame Equipment Problem
- **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**: FLC complied w / Automation / Advisory

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

**Narrative: 1**
On takeoff rotation on Runway XX. We heard and felt multiple bird strikes. Immediately followed by a Stall Fail caution and rudder limit fault status message. The FO said they felt vibration in the flight controls as well. We informed tower, and declared our intention to return to ZZZ with departure. We requested to level off at 3000 and vectors for time to run checklist, inform dispatch and prepare flight attendants and passengers. During that time we lost the airspeed indication. When we were ready for the approach we informed departure and received vectors on to the approach. Landed and taxied with out further incident. Cause: Bird strike on takeoff, birds not seen until during bird strike. Small birds.

**Narrative: 2**
Completed all before takeoff checklist items, lined up on runway. Cleared for takeoff on Runway XX out of ZZZ. Right after rotation no more than 1-2 seconds multiple sounds of bird strikes from both the left and the right side of the flight deck were experienced. The birds were of slightly larger than a softball in size. Immediately following the strike EICAS indicated a Stall Fail caution message along with a Rudder Lim Fault status message. The controls felt a slight vibration, I the FO was flying the aircraft at the time. The captain at the time informed approach that we were going to level off at 3000 feet, the initially cleared altitude. We cleaned up the aircraft during the remainder of the climb and at this time the captain handed over the radios over to me the PF at the time. He informed dispatch of the situation and the intent to return to ZZZ. ATC then gave us [priority
handling] and gave us the time to set up the aircraft. We ran all checklists, got vectors from ATC to keep us within an acceptable distance from the airport and set the aircraft up for the ILS back into RWY XX at ZZZ. During this time we noticed that we lost all airspeed indications as well. We performed all required procedures and I the FO continued as PF and handed the radios back to the CA. We landed without further incident and taxied off the runway, informed ground and tower the information they requested. Cause: Bird strike on rotation. Multiple sides of aircraft followed by Stall Fail caution, Rudder Limit Fault, airspeed loss and control vibration.

**Synopsis**

CRJ-900 flight crew reported being struck by several birds just after liftoff. The pilots returned to the departure airport. The aircraft had systems that were malfunctioning after the bird strike.
Time / Day
Date: 202308
Local Time Of Day: 0601-1200

Place
Locale Reference.Airport: ZZZ.Airport
State Reference: US
Altitude.AGL.Single Value: 250

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

Aircraft
Reference: X
Aircraft Operator: Recreational / Hobbyist (UAS)
Make Model Name: DJI Mini 2
Crew Size.Number Of Crew: 1
Operating Under FAR Part: Recreational Operations / Section 44809 (UAS)
Mission: Recreational / Hobbyist (UAS)
Flight Phase: Hovering (UAS)
Airspace.Class G: ZZZ
Operating Under Waivers / Exemptions / Authorizations (UAS): N
Weight Category (UAS): Small
Configuration (UAS): Multi-Rotor
Flight Operated As (UAS): VLOS
Flight Operated with Visual Observer (UAS): N
Control Mode (UAS): Manual Control
Flying In / Near / Over (UAS): People / Populated Areas
Type (UAS): Purchased
Number of UAS Being Controlled (UAS).Number of UAS: 1

Person
Location Of Person: Outdoor / Field Station (UAS)
Reporter Organization: Recreational / Hobbyist (UAS)
Function.Flight Crew: Person Manipulating Controls (UAS)
Qualification.Flight Crew: Remote Pilot (UAS)
Experience.Flight Crew.Total (UAS): 50
Experience.Flight Crew.Last 90 Days (UAS): 15
Experience.Flight Crew.Type (UAS): 15
ASRS Report Number.Accession Number: 2026233
Analyst Callback: Attempted

Events
Anomaly.Inflight Event / Encounter: Bird / Animal
Detector.Person: UAS Crew
When Detected: In-flight
Result. Aircraft: Aircraft Damaged

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

Narrative: 1
I was flying in Location A across the street from the park. A hawk came out from hiding in the sun and attacked my drone. It was damaged and fell 250 feet. I recovered the parts. It looks like it is a complete loss.

Synopsis
Recreational/Hobbyist UAS pilot reported a hawk attacked their UAS causing it to crash.
ACN: 2023578 (5 of 50)

**Time / Day**
- Date: 202308
- Local Time Of Day: 0601-1200

**Place**
- Locale Reference: ATC Facility: ZZZ.TRACON
- State Reference: US
- Relative Position: Distance: Nautical Miles: 15
- Altitude: MSL: Single Value: 6000

**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

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

**Person**
- Location Of Person: Aircraft: X
- Location In Aircraft: Flight Deck
- Reporter Organization: Air Carrier
- Function: Flight Crew: Pilot Flying
- Function: Flight Crew: Captain
- Qualification: Flight Crew: Air Transport Pilot (ATP)
- Qualification: Flight Crew: Multiengine
- Qualification: Flight Crew: Instrument
- Experience: Flight Crew: Last 90 Days: 150
- ASRS Report Number: Accession Number: 2023578
- Human Factors: Troubleshooting
- Human Factors: Confusion
- Human Factors: Situational Awareness

**Events**
- Anomaly: Aircraft Equipment Problem: Critical
- Anomaly: Flight Deck / Cabin / Aircraft Event: Smoke / Fire / Fumes / Odor
- Anomaly: Inflight Event / Encounter: Bird / Animal
Detector.Person : Flight Crew
When Detected : In-flight
Result.Flight Crew : Returned To Departure Airport

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

Narrative: 1
Possible bird strike while climbing on takeoff. No engine abnormal indications. Landed back into ZZZ. Flight Attendant saw flame shoot out the left engine momentarily. No indication of bird strike after returning to the gate. Possible compressor stall.

Synopsis
Air carrier Captain reported a possible bird strike during climb after takeoff and a report of momentary flame from left engine visible from the cabin. The Captain returned to the departure airport and landed safely.
Time / Day
Date: 202307
Local Time Of Day: 0601-1200

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

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

Aircraft
Reference: X
ATC / Advisory.Tower: ZZZ
Aircraft Operator: FBO
Make Model Name: PA-28 Cherokee/Archer/Dakota/Pillan/Warrior
Crew Size.Number Of Crew: 1
Operating Under FAR Part: Part 91
Flight Plan: None
Mission: Training
Flight Phase: Landing
Airspace.Class D: ZZZ

Person
Location Of Person: Gate / Ramp / Line
Reporter Organization: FBO
Function.Flight Crew: Instructor
Qualification.Flight Crew: Commercial
Qualification.Flight Crew: Flight Instructor
Experience.Flight Crew.Total: 667
Experience.Flight Crew.Last 90 Days: 170
Experience.Flight Crew.Type: 430
ASRS Report Number.Accession Number: 2020901
Human Factors: Situational Awareness
Human Factors: Distraction
Human Factors: Confusion
Human Factors: Training / Qualification
Human Factors: Workload
Human Factors: Time Pressure

Events
Anomaly.Ground Excursion: Runway
Anomaly.Ground Event / Encounter: Object
Anomaly.Ground Event / Encounter: Loss Of Aircraft Control
Anomaly.Inflight Event / Encounter : Bird / Animal
Detector.Person : Flight Crew
When Detected : In-flight
Result.General : Flight Cancelled / Delayed
Result.Aircraft : Aircraft Damaged

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

Narrative: 1

In the morning, after discussing with my student and combing through various weather reports to make an appropriate go/no-go decision, I made the determination to send my student for a solo, takeoffs and landings, to a full stop. This was to be her second solo in a 141 program. According to the ASOS and METAR, weather conditions for the morning were appropriate to a pattern solo - (according to the ASOS - called prior to walk around) winds variable at 5 knots, 10 sm of visibility, pressure 30.09, density altitude 1,675 feet. We conducted an analysis of the aircraft's performance data, located in the "performance and limitations" section of the POH to account for the day's aircraft performance. Following that, we filled up the tanks from the local FBO, and proceeded with the aircraft walk around. There were not any items damaged on the plane prior to takeoff and the aircraft was not due for any maintenance. After that, my student entered the aircraft, and departed for her second solo. After her runup was complete at the runup area, I watched her taxi for the first circuit in the pattern of the day. She was cleared for takeoff, and proceeded to takeoff and make left closed traffic. I was monitoring her progress on foreflight, and listening to her radio calls on the tower frequency. After being cleared to land, she appeared stabilized throughout her descent both on flightaware (ADS-B), and visually, and made her first of 4 landings. She adhered to my instructions, decelerating to a full stop before taxiing back to the runway for full length departures. Her second takeoff was also very stable, and once again commenced left closed traffic. On the second circuit in the pattern, she was extended downwind before being cleared for another full stop landing. While she was outside of my direct sightline at this time, in reviewing the ADS-B data, she appears to have initiated a stabilized descent at airspeeds consistent with her training. About 50 feet over the runway and prior to touchdown, my student states she "hit something and there was a loud thud on the right side of the plane." Upon debrief, she states that she believes it was a bird or possible drone strike. In the moments following the strike, she says was unfocused and continued with her landing instead of proceeding with a go-around procedure. While attempting to regain control, she suffered from a runway excursion, and hit a Runway Distance Remaining sign while departing the runway. The tower sent assistance, and she was able to get out of the grass and taxi back to the ramp under her own power. Upon post flight walk around, there was substantial damage to the aircraft's left wing, and what appeared to be an impact point of the bird strike on the right side of the cowling. According to her training, she has logged countless takeoffs, landings, and go-arounds - consistently demonstrating premier procedural knowledge of traffic pattern operations, and radio communications. During her pre-landing brief, she states to expect the go-around and has previously demonstrated that she will not hesitate to increase the aircraft's power, and initiate a go-around. My analysis is that while she was stabilized on her final descent, the strike and resulting loud thud redirected her attention and caused her to lose focus during the most critical phase of flight. Following this accident, we will be conducting 3 lessons exclusively working on go-arounds, and go-
around procedures to ensure this does not happen again. During those lessons, I plan to use all the tools at my disposal to continue simulating real world distractions.

Synopsis

PA-28 flight Instructor reported that while their student was performing a solo landing, they had a bird strike on final approach. During landing, the student lost aircraft control resulting in a runway excursion.
Time / Day
Date: 202307
Local Time Of Day: 1201-1800

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

Aircraft
Reference: X
Aircraft Operator: Air Carrier
Make Model Name: B767-300 and 300 ER
Crew Size.Number Of Crew: 3
Operating Under FAR Part: Part 121
Flight Plan: IFR
Mission: Passenger
Flight Phase: Takeoff / Launch

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: 2020439

Person: 2
Location Of Person.Aircraft: X
Location In Aircraft: Flight Deck
Reporter Organization: Air Carrier
Function.Flight Crew: First Officer
Function.Flight Crew: Pilot Not Flying
Qualification.Flight Crew: Instrument
Qualification.Flight Crew: Multiengine
Qualification.Flight Crew: Air Transport Pilot (ATP)
ASRS Report Number.Accession Number: 2019914
Human Factors: Communication Breakdown
Human Factors: Situational Awareness
Human Factors: Workload
Communication Breakdown. Party 1: Flight Crew
Communication Breakdown. Party 2: ATC

Events
Anomaly. Aircraft Equipment Problem: Critical
Anomaly. Deviation - Speed: All Types
Anomaly. Ground Event / Encounter: Person / Animal / Bird
Detector. Person: Flight Crew
When Detected: In-flight
Result. General: Flight Cancelled / Delayed
Result. General: Maintenance Action
Result. Flight Crew: Landed in Emergency Condition
Result. Flight Crew: Requested ATC Assistance / Clarification
Result. Flight Crew: Returned To Departure Airport
Result. Flight Crew: Returned To Gate
Result. Air Traffic Control: Issued New Clearance
Result. Air Traffic Control: Provided Assistance
Result. Aircraft: Aircraft Damaged

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

Narrative: 1
On Day 0 myself as pilot flying, First Officer (FO) Person A as pilot monitoring and an FO and Captain (CA) as additional operating crew were operating Aircraft X from ZZZZ to ZZZZ1. All preflight operations were normal and a normal taxi out to the active Runway XXR was accomplished. Upon entering Runway XXR and cleared for take-off, normal procedures were accomplished and the take-off roll was normal. After 80 kts. thrust set was called and verified and approximately before V1 a flock of birds crossed the aircraft’s path from right to left. Approximately 6 to 12 dark colored birds were observed by myself crossing in front of the aircraft. V1 was called and a normal rotation was accomplished when I noted a non normal (louder, different) sound from the right side of the aircraft and realized that we had a potential bird strike on the right side/engine of the aircraft. The other FO identified the engine vibration was climbing from approximately 0.8-4.7 during the climb out. I stopped the climb at 2000 ft. and pulled power back to reduce the engine vibration. We [requested priority handling] with ATC and we requested to return to ZZZZ airport and landing on XXR a take-off, decent, and approach checklist was completed and then I instructed the other FO to advise the purser to have everyone stay seated with seat belts and our intent to return and land at ZZZZ airport. We then prepared for landing at ZZZZ Runway XXR, all checklists and landing procedures were verified by all crew and normal landing was accomplished on XXR with no abnormalities. A normal taxi to stand x was accomplished with Crash Fire Rescue (CFR) following the aircraft as a precaution to the parking stand. Upon shutting down and all checklists complete a full walk around was done. Damage to the right engine was identified and photos were taken confirming that a bird strike did happen. I then called the Company and spoke to Dispatch to let them know of the situation and we were all safe on the ground at ZZZZ. I asked Dispatch to pass along message information to the Chief Pilot, Fleet Manager, and operations of the situation. After a bit I received a phone call from the Duty Pilot asking about the situation and I explained everything. Then asked the Duty Pilot to pass along all information to the
chief pilot, fleet manager, and operations of the current situation. From there we as a full crew (all pilots and Flight Attendant's) left the aircraft and I turned the aircraft over to Maintenance.

Narrative: 2

At XA45Z, we were taking off Runway XXR out of ZZZZ as we noticed a flock of birds flying in front of us from right to left. We were accelerating through 80 kts. when I Pilot Monitoring (PM) noticed that our thrust setting was set but our engine vibration on the right engine was about two units higher than on the left engine. As we accelerated through V1 and Vr, we lifted off and could see the engine vibration steadily increase from 3.8 units to 4.1 units by the time we hit 1000 ft. AFE and selected VNAV and continued climbing. In the climb they observed a continued increase in the engine vibration and the unusual noise coming from the right side. The maximum observed vibration was 4.7 units when the Pilot flying (PF) still hand flying reduced the thrust levers and wanted to amend our initial departure clearance which had us climb to 4000 ft. I told ATC that we want to turn back to ZZZZ and land because we assumed a bird strike on take-off and that we are requesting 2000 ft. for now. On the climb out we switched frequencies and had some issues communicating to ATC of our intentions. So, we [requested priority handling], got a new heading and lower altitude. The third pilot in the observer seat called the Flight Attendants and advised them to stay seated and that we will return back to ZZZZ in a matter of minutes, due to an expected bird strike and high engine vibration on the right side. Also, while that was happening we were descending to 2000 ft. at flaps 5 and momentarily exceeded the flap limit speed of 230 kts. Retracted the flaps from 5 to 1, slowed down, leveled off, then, we then turned on the center autopilot and went back to flaps 5. After about two right turn vectors we were now on downwind for Runway XXR and confirmed that we were below max landing weight. So, I got the landing performance, set up and identified the ILS and completed the following checklists together with the Captain (CA)/PF. After take-off, descent, and approach checklist. We were cleared for the ILS XXR and landed at XB00Z and were back at the gate at XB04Z. Cause - Bird strike on take-off causing the increasing engine vibration on the right engine and the associated unusual noise coming from the right hand side. The unusual event, the language barrier, the startle effect, hand flying and amended clearances, increased everybody’s workload tremendously. A high speed rejection would have been possible but was not necessarily the safest course of action given the heavy weight, high 41 degree Celsius outside air temperature and no other abnormal indication than a higher engine vibration. Suggestions - I should have spoken up sooner to suggest the usage of the autopilot. It would have helped to reduce the workload, significantly. Also, we should have [requested priority handling] sooner, this could have reduced the amount of talking on the radio, which then would have freed up more time to do other things, such as setting up the FMC, completing the checklists, briefing the approach and the Flight Attendants, instead of doing a couple of things at once. I should have slowed down, taken a deep breath and made sure everything gets completed in a methodical and not rushed manner.

Synopsis

B767-300 crew reported a bird strike prior to V1, causing high vibration readings on engine. Crew returned to departure airport.
**ACN: 2004737 (8 of 50)**

**Time / Day**
- Date: 202305
- Local Time Of Day: 1201-1800

**Place**
- Locale Reference. ATC Facility: ZZZ.TRACON
- State Reference: US
- Altitude. MSL. Single Value: 11000

**Environment**
- Flight Conditions: VMC

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

**Component**
- Aircraft Component: 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: Captain
- Qualification. Flight Crew: Multiengine
- Qualification. Flight Crew: Air Transport Pilot (ATP)
- Qualification. Flight Crew: Instrument
- Experience. Flight Crew. Total: 3750
- Experience. Flight Crew. Last 90 Days: 166
- Experience. Flight Crew. Type: 3750
- ASRS Report Number. Accession Number: 2004737
- Human Factors: Workload
- Human Factors: Time Pressure
- Human Factors: Troubleshooting

**Person: 2**
While descending into ZZZ on the ZZZZZ RNAV STAR in the vicinity of ZZZZZ1 intersection at 11,000 ft., I was startled by the noise of a very loud bang. I immediately looked at the engine instruments and all was normal. I stated to the First Officer (FO) that I thought we may have hit a bird and he agreed with my assessment. I contacted the cabin crew to get their input. Both forward flight attendants (FA) heard the noise but didn’t know what it was. The aft flight attendants did not hear the noise. After hanging up the interphone, I began to smell a noxious odor. The flight attendants called me back to report a noxious smell throughout the entire aircraft. I actioned the [smoke and fumes] QRC immediate action items and both the first officer and I donned our full face oxygen masks. I requested priority handling with ATC and was given priority for landing. Since we had already briefed the approach to Runway XXL, I elected to continue to that runway even though it was the shortest runway given that we had no mechanical issues and it would allow us to get the airplane on the ground the quickest. I sent an ACARS message to dispatch informing them of the situation. I then called the flight attendants and gave them a standard briefing informing them of the situation. I continued running the QRC while the first officer flew the airplane and communicated with ATC. We completed the first steps and abandoned the checklist after ATC cleared us for the approach and I felt my attention was better focused on backing up the FO and monitoring the approach and landing. After
clearing the runway, Airport Rescue and Firefighting (ARFF) inspected our aircraft. After speaking with them, I felt it was safe to continue to the gate. A flight attendant called to report that a passenger was experiencing sickness and had vomited as a result of the smell. I asked if the passenger needed EMTs to meet us. The flight attendant informed me the passenger declined medical treatment. Upon arrival at the gate, we completed the required maintenance reports and flight operations contacts. Upon external inspection the remains of a large bird was observed forward of the nose wheelwell and throughout the right engine.

**Narrative: 2**

While on the ZZZZZZ arrival into ZZZ, we were level crossing ZZZZZ1 at 11,000 ft. and 300 kts, we hit a large brown bird. For about just a flash, I saw a large Brown/blackish bird in-front of the aircraft and go under us. It hit underneath the nose and made a loud bang. I didn’t think it went toward the engine, but a few seconds after the hit, we smelled a burnt odor. We knew that it must have gone through an engine. We scanned the engine instruments and everything was normal. Because the odor got worse and was reported by the flight attendants (FA) as well, we completed the [smoke and fumes] checklist. As part of the checklist we put on the O2 masks. This caused difficulty through out the rest of the flight. After completing the Immediate action items, I continued to fly and talk to ATC, while the Captain (CA) handled the situation with dispatch, the FAs. We continued the arrival and were given priority for the approach to XXL. After landing, the Airport Rescue and Firefighting (ARFF) only found a mark on the nose with no other damage. The odor remained in the aircraft even after getting parked at the gate.

**Synopsis**

Air carrier flight crew reported a bird strike during approach which resulted in a strong odor throughout the aircraft. The flight crew completed a safe landing with the ground personnel providing appropriate support.
**ACN: 2001576 (9 of 50)**

**Time / Day**
- Date: 202305
- Local Time Of Day: 1801-2400

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

**Environment**
- Flight Conditions: VMC

**Aircraft**
- 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
- Flight Phase: Parked

**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: First Officer
- Qualification.Flight Crew: Instrument
- Qualification.Flight Crew: Multiengine
- Qualification.Flight Crew: Air Transport Pilot (ATP)
- Experience.Flight Crew.Last 90 Days: 124
- Experience.Flight Crew.Type: 262
- ASRS Report Number.Accession Number: 2001576
- Human Factors: Other / Unknown
- 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 Not Flying
Qualification: Flight Crew: Instrument
Qualification: Flight Crew: Air Transport Pilot (ATP)
Qualification: Flight Crew: Multiengine
Experience: Flight Crew: Last 90 Days: 149
Experience: Flight Crew: Type: 899
ASRS Report Number: Accession Number: 2001682
Human Factors: Communication Breakdown
Communication Breakdown: Party1: Flight Crew
Communication Breakdown: Party2: Maintenance

Events

Anomaly: Aircraft Equipment Problem: Critical
Anomaly: Inflight Event / Encounter: Bird / Animal
Detector: Person: Flight Crew
When Detected: Aircraft In Service At Gate
Result: General: Release Refused / Aircraft Not Accepted
Result: Aircraft: Aircraft Damaged

Assessments

Contributing Factors / Situations: Aircraft
Primary Problem: Aircraft

Narrative: 1
The Captain conducted a walk around when we got to the aircraft and noticed what looked like a few small bird strikes on the wing, wheel, nose, and ingested into the number 2 engine. He was told it was just a bug. I went out and had a look also. We stopped the blades and had a very close look and noticed the splatter into the core was very chunky and there was no way it was just a bug. The aircraft was also due to fly over mountainous terrain, at max weight, and over remote areas. We both did not feel comfortable taking this plane unless it had been inspected properly and chose the safest option.

Narrative: 2
During the walk around, I noticed evidence of at least a dozen bird strikes on the forward fuselage, right wing, right main gear, and the number two engine core stator vanes. All of the bird strikes appeared non damaging, but the one on the core engine concerned me. I made an electronic logbook entry and contacted Operations to have Maintenance come out. The contract maintainer and I stopped the windmilling fan and inspected the contamination on the engine stator blade. He stated that it was insect residue in his opinion. I was able to touch the residue with my fingers and found it to be substantial and raised above the stator blade. There was more material present than could have come from a bug. In my opinion, a small bird was ingested by the core engine. Later, my First Officer examined the engine and reached the same conclusion. I told the maintenance contractor that I felt a bore scope inspection was necessary. I contacted Dispatch and Maintenance Control. The Maintenance Control engine representative repeated the contact maintainer’s impression that the problem was large insects rather than birds. I told him I did not agree, that I believed a bird had been ingested, and that I would like to have the engine bore scoped. The Maintenance Control representative said Maintenance Control’s position was that they could defer the bore scope inspection for a certain number of hours and cycles. Such action would allow us to fly the aircraft to ZZZ. I discussed the matter with my FO (First Officer) and we both went out and inspected the aircraft and engines.
My FO had similar concerns about the safety of operating the aircraft under the proposed deferral. I called the Chief Pilot and we established a conference call that included Maintenance Control and Dispatch. I explained that while Maintenance Control could defer the bore scope, my FO and I felt uncomfortable with departing in an airplane loaded to within a few percent of maximum take-off weight into high terrain and a long stretch of remote terrain, all with a questionable engine. I decided to refuse the aircraft. While we waited in the terminal for an updated schedule, we noticed that the pilot team who arrived to operate another Air Carrier flight were asked if they would accept the aircraft I had just refused. That Captain also declined to take the aircraft.

**Synopsis**

B737 flight crew reported they refused an aircraft after finding what appeared to be a bird strike in one of the engines.
ACN: 2000882 (10 of 50)

Time / Day
Date: 202305
Local Time Of Day: 1201-1800

Place
Locale Reference.Airport: ZZZZ.Airport
State Reference: FO
Altitude.AGL.Single Value: 1000

Aircraft
Reference: X
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: Initial Climb
Flight Phase: Climb

Component
Aircraft Component: Turbine Engine
Aircraft Reference: X
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: Multiengine
Qualification.Flight Crew: Instrument
ASRS Report Number.Accession Number: 2000882

Person: 2
Location Of Person.Aircraft: X
Location In Aircraft: Flight Deck
Reporter Organization: Air Carrier
Function.Flight Crew: Pilot Not Flying
Function.Flight Crew: Check Pilot
Qualification.Flight Crew: Air Transport Pilot (ATP)
Qualification.Flight Crew: Multiengine
Qualification.Flight Crew: Instrument
ASRS Report Number.Accession Number: 2000558

Events
Flight was scheduled as Aircraft X on Day 0 from ZZZZ to ZZZ. Scheduled takeoff time was XA:20 local ZZZZ-time and scheduled landing time was XF:09 ZZZZ-time. This was my 10th flight in the left seat during my Captain's IOE after flying as an A320 FO (First Officer) for approximately 5 years. Check Pilot was in the FO seat. Our clearance was on the ZZZZZ to ZZZZZ1 up to FL380. Preflight and taxi were normal. Takeoff was made by me from the Captain's seat off Runway XX. It was a flaps 3 flex mode takeoff with a slight headwind. Takeoff was normal through thrust reduction altitude. Just after thrust reduction at just over 1,000 ft. AGL, I maneuvered the aircraft to avoid a flock of approximately six what appeared to be large black birds that passed under the right wing. Just a few seconds later, a flock of approximately four of the same large black birds passed over the left wing, and at least one of those birds was ingested by the number one engine. There was a loud bang at the sound of the impact, the left engine immediately began vibrating loudly, and the Master Warning continuous repetitive chime went off. I said "my aircraft," continued flying aircraft, and engaged autopilot 1. The Check Pilot analyzed the situation and determined it was not a quick action item or ECAM exception. After a brief discussion, we decided that I would continue flying the aircraft and the Check Pilot would run the ECAM actions. At engine out acceleration altitude I selected the speed to 180 kt. and requested flaps 1 and continued climbing. We stayed at this speed and configuration until beginning the approach. We continued flying the ZZZZZ through the turn to the north for a short time while the Check Pilot worked through ECAM actions. We eventually reached 8000 ft. and leveled off. The Check Pilot and I each spoke to the FAs (Flight Attendant) over the cabin interphone during the first couple minutes after the bird strike. The FAs told us what they knew about the incident from their perspective. By the second time we spoke, the Check Pilot had put out the engine fire and I notified the FAs of this. The Check Pilot, who is fluent in the country's language and could communicate well with ATC, handled radio communications. All of his communications were in English. The Check Pilot [requested priority handling] as we were flying north on the ZZZZZ. Departure Control cleared us for a right turn direct to the airport, but the Check Pilot requested a more southerly heading to line us up for an approach, and also requested a descent to 6,000 ft. The Check Pilot requested ARFF (Airport Rescue and Firefighting) equipment to be positioned at the runway. The Check Pilot completed ECAM actions and QRH follow-up actions. I activated and confirmed approach mode, changed our destination to ZZZZ, and
updated the PERF (Performance) Page with our landing weather. The Check Pilot loaded the RNP Y XY approach - ILS glideslope was out of service. The Check Pilot sent a message to Dispatch, and very calmly spoke with the FAs and passengers. He informed the FAs that we would be doing a precautionary landing back at ZZZZ. The Check Pilot gave the passengers a description of the situation and told them we were returning to ZZZZ. We ran the After Takeoff Checklist, Descent Checklist, and verified and briefed the approach. I flew towards ZZZZZ2 and flew through the inbound course to set up for a right turn to teardrop onto the inbound approach course. At some point before ZZZZZZZ inbound we leveled off at 6,000 ft. I configured with gear and flaps 3 prior to ZZZZZ3 and we ran the Before Landing Checklist. Autobrakes were medium. I landed on Runway XY and used full reverse thrust from engine number two and began braking immediately. We stopped just prior to Taxiway XX. The fire personnel looked over the aircraft and cleared us to taxi to parking. Ground Control cleared us to Gate XX where we parked the aircraft. Cause: Bird strike to the number 1 engine. Suggestions: Continue to emphasize the dangers of bird strikes.

Narrative: 2

I am a Company Check Pilot. I was giving Operational Experience, OE, to a Captain upgrade, to include [several] location qualifications. The flight was the return flight, from ZZZZ to ZZZ, on Day 0. The Captain upgrade had already flown 8 flights and 7 landings with a previous Check Pilot, and was a previous First Officer on the A320 aircraft for approximately 5 years. Scheduled takeoff time was XA:20 local ZZZZ-time and scheduled landing time was XF:09 ZZZ-time. Our clearance was on the ZZZZZ to ZZZZZ1 up to FL380. Preflight and taxi were normal. We took off from ZZZZ at XA:31 local time from Runway XX. The takeoff was made by the Captain upgrade from the left seat. It was a normal flaps 3 flex takeoff with a slight headwind. At approximately 1,100 ft. AGL and just after thrust reduction, I saw a flock of approximately six large black birds on the right side of the aircraft. I called "birds," and the Captain upgrade maneuvered the aircraft to avoid the birds. Unfortunately, there was another flock of approximately 4 of the same birds on the left side of the aircraft, and immediately we heard a loud thump, accompanied by moderately loud vibration, followed by engine #1 fire indications. The Captain upgrade stated "my aircraft" and continued flying the aircraft. I began the strategy, after analyzing the situation. After reviewing the Quick Reference Card, QRC, I determined it was not a quick action item or ECAM exception. Following a brief discussion, as a crew, we decided that the Captain upgrade would continue to fly the aircraft and I would run the ECAM actions. Upon reaching engine out acceleration altitude, I commanded the Captain upgrade to hold 180 kt. He requested flaps 1 and continued climbing. We maintained this speed and configuration until reaching 8,000 ft. MSL, while flying the ZZZZZ departure. The flight attendants called numerous times over the cabin interphone within minutes ensuing the bird strike. They reported smoke in the aft cabin and fire in the left engine. I told them we were aware of the situation and were in the process of taking appropriate action and returning to the airport. I asked them to remain calm and I would get back to them soon as conditions permit. I continued running the ECAM actions and was able to put the fire out after discharging the first bottle. It was at this time, I [requested priority handling] with ZZZZZ Approach, who cleared us to proceed direct to the airport. I then requested a south heading and descent to 6,000 ft., which enabled us to clear the local terrain. Additionally, it is the FAF intercept altitude for the RNAV Runway XY. During our thorough preflight planning from ZZZ, we became aware that the ILS was out of service in ZZZZ and not an option. Due to factors such as being fluent in the local language, I decided to handle all ATC communications, although all communications were accomplished in English. To follow suit, I then requested ARFF (Aircraft Rescue and Firefighting) equipment to meet the aircraft after landing, and completed the After-Takeoff Checklist. I accomplished the ECAM and QRH follow-up actions, then sent free text message to
Dispatch, communicated to the flight attendants to give them a quick update on the situation and informed them that we would be doing a precautionary landing at ZZZZ. To conclude, I made a PA to the passengers and prepared to complete the remaining normal checklists before landing. The Captain upgrade changed the destination and I selected the RNAV Y Runway XY. He then activated and confirmed approach mode, updated the PERF (Performance) Page with current weather conditions and flew towards ZZZZZ2, IF. The Captain upgrade informed me he intended to fly through the inbound course to set up for a right turn to teardrop onto the inbound approach course. He was level at 6,000 ft. before ZZZZZ2. We briefed the highlights of the approach and completed the Before-Landing Checklist. The Captain upgrade questioned if we should land flaps 3 or flaps full, to which I decided on flaps 3, due to single engine go-around considerations. We configured with gear, flaps 3, and medium autobrakes prior to ZZZZZ3. Since it was apparent he had good aircraft control, I made the decision to continue to let him fly the approach and land overweight. He landed on Runway XY, using full reverse thrust from engine number two along with immediate manual braking. We came to a complete stop just prior to Taxiway XX. The fire personnel looked over the aircraft, clearing us to taxi to parking. Ground Control cleared us to Gate XX where we brought the aircraft to a final stop. Although we were visually inspected by ARFF personnel, I questioned their ability to assess and conduct firefighting procedures on the aircraft. My intuition further increased after personnel arrived up in a small yellow truck, with no alert or safety flashing lights. They were in direct communication with us and Tower, where communications were in the local language. I am still perplexed by what kind of safety equipment they use, their firefighting capabilities, and what initial and recurrent training consists of. Pilots need to be aware of what to expect in case of an emergency. I am awaiting further information from the ZZZZ General Manager. Cause: Flock of birds on both sides of the aircraft. Unfortunately, airports in ZZZZZ2 do not have a wildlife animal control at their airports. It would be nice if something similar to what we do in the States could be introduced in these countries.

**Synopsis**

A319 flight crew reported an inflight shutdown of engine #1 due to the indication of fire in the engine caused by a bird strike. The flight crew then performed an air turnback.
ACN: 1998787 (11 of 50)

Time / Day
Date: 202305
Local Time Of Day: 0601-1200

Place
Locale Reference. ATC Facility: ZZZ.TRACON
State Reference: US
Altitude. MSL. Single Value: 9000

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: Climb
Route In Use: Vectors
Airspace. Class E: ZZZ

Component : 1
Aircraft Component: Oil Filter
Aircraft Reference: X
Problem: Malfunctioning

Component : 2
Aircraft Component: Turbine Engine
Aircraft Reference: X
Problem: Malfunctioning

Person
Location Of Person. Aircraft: X
Location In Aircraft: Flight Deck
Reporter Organization: Air Carrier
Function. Flight Crew: First Officer
Function. Flight Crew: Pilot Not Flying
Qualification. Flight Crew: Instrument
Qualification. Flight Crew: Air Transport Pilot (ATP)
Qualification. Flight Crew: Multiengine
ASRS Report Number. Accession Number: 1998787

Events
Anomaly.Aircraft Equipment Problem : Critical
Anomaly.Deviation / Discrepancy - Procedural : Clearance
Anomaly.Inflight Event / Encounter : Bird / Animal
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 : 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
Primary Problem : Aircraft

Narrative: 1
Upon climbing out of ZZZ at approx 3,000-4,000 feet, we got a oil filter bypass light on the number 1 engine. As we got the checklist out we continued to climb and leveled off at 9,000 feet. Following the QRH procedure, it directed us to close the #1 thrust lever until the light goes out. We got all the way to idle and the light remained on. The checklist then directs you to the engine shut down checklist. We elected to keep the engine running since all the parameters were still normal. We advised ATC and diverted to ZZZ1. On final approach to Runway XXL at approximately 500 feet, we got a large bird strike just above the #2 engine. The good engine. We landed without incident and made the turnoff on Runway XYR. The #1 engine was shut down and we had Airport Rescue and Firefighting (ARFF) inspect the #1 engine. No abnormalities were noticed, and we taxied to gate with ARFF following.

Synopsis
B737 First Officer reported receiving an oil filter bypass warning on the number one engine during climb out. A diversion was initiated resulting in a safe landing.
ACN: 1996768  (12 of 50)

Time / Day
Date : 202305
Local Time Of Day : 1801-2400

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

Environment
Flight Conditions : VMC
Light : Night

Aircraft
Reference : X
ATC / Advisory.UNICOM : ZZZ
Aircraft Operator : Personal
Make Model Name : PA-28 Cherokee/Archer/Dakota/Pillan/Warrior
Crew Size.Number Of Crew : 2
Operating Under FAR Part : Part 91
Flight Plan : VFR
Mission : Personal
Flight Phase : Landing
Route In Use.Other

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

Person : 1
Location Of Person.Aircraft : X
Location In Aircraft : Flight Deck
Reporter Organization : Personal
Function.Flight Crew : Pilot Flying
Qualification.Flight Crew : Private
Experience.Flight Crew.Last 90 Days : 38
Experience.Flight Crew.Type : 18
ASRS Report Number.Accession Number : 1996768
Human Factors : Situational Awareness

Person : 2
Location Of Person.Aircraft : X
Location In Aircraft : Flight Deck
Reporter Organization : Personal
Function.Flight Crew : Pilot Not Flying
Qualification. Flight Crew: Private
Experience. Air Traffic Control. Supervisory: 12020
Experience. Flight Crew. Total: 225
Experience. Flight Crew. Last 90 Days: 14
Experience. Flight Crew. Type: 50
ASRS Report Number. Accession Number: 1996778

Events
Anomaly. Aircraft Equipment Problem: Less Severe
Anomaly. Conflict: Ground Conflict, Critical
Anomaly. Deviation / Discrepancy - Procedural: Published Material / Policy
Anomaly. Ground Event / Encounter: Loss Of Aircraft Control
Anomaly. Ground Event / Encounter: Person / Animal / Bird
Detector. Person: Flight Crew
When Detected: In-flight
Result. Flight Crew: Took Evasive Action
Result. Aircraft: Aircraft Damaged

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

Narrative: 1
As sole manipulator of the controls I flew the RNAV XX practice approach into ZZZ from ZZZ1 with a safety pilot. Post-landing, during the roll-out phase suddenly several medium sized animals (large racoon, small hog, or similar) appeared on the runway directly in front of the aircraft. I applied heavier brakes while still maintaining directional control, missed one of the animals but impacted the second one with the left main gear. After impact I applied heavy brakes and right rudder to counteract the damaged left main gear which was pulling the aircraft strongly to the left. Came to a stop on the runway left of center line about 200 ft. from impact. No injuries. Unable to taxi off the runway nor push it by hand due to the gear damage, we left the strobes and beacon on and monitored the radio to advise inbound aircraft about the situation on the runway. I informed the local authorities about the situation. An aircraft came in to join the pattern and I signaled them with my flashlight from the runway while my co-pilot got on the radio to advise them of the situation. The aircraft in the pattern relayed our situation to ZZZ Approach, who had been controlling us prior to the incident. Police and fire services showed up with flashing lights on the runway to help advise any inbound traffic that there was an obstacle on the runway. A local pilot showed up with an airport tug vehicle and helped us push the aircraft off of the runway into the grass about 30 ft. west of the runway edge lighting. Contributing factors were the lack of airport fencing as well as decision to fly a straight-in approach into an untowered, rural, unfenced field at night without a low pass to scare away any wildlife which may have been present.

Narrative: 2
I was in the right seat and not operating the aircraft. During rollout after touchdown, I saw an animal crossing the runway about 15-25 ft. in front of the aircraft. The PIC immediately began braking and missed the first animal, however, a second animal which looked like a wild boar crossed closely behind and hit the left main gear of the aircraft. The PIC was able to remain on the runway. After coming to a stop, we left the beacon and strobes
turned on for visibility, monitored CTAF, and inspected the damage. We were unable to move the aircraft off the runway under its own power or with a hand-powered tow bar. I tried to contact ZZZ Approach and guard as well as the local airport facilities but was unable. After a few minutes, I heard traffic in the pattern and advised them that the runway was unsafe. I asked them to notify ZZZ Approach. I requested police and or fire presence to ensure visible flashing lights on the runway would alert traffic. I believe a primary factor in causing this incident was the lack of fencing at the airport. We did not have a flashlight with the required number of D cell batteries in the aircraft. I do not believe this was a factor as we did have an LED flashlight, but nothing here for protection.

Synopsis
PA-28 pilot reported hitting small animal on runway during landing rollout.
**Time / Day**
Date: 202304
Local Time Of Day: 0601-1200

**Place**
Locale Reference, ATC Facility: ZZZ.Tower
State Reference: US
Altitude, MSL, Single Value: 600

**Environment**
Flight Conditions: IMC
Light: Daylight

**Aircraft**
Reference: X
ATC / Advisory, Tower: 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
Flight Phase: Initial Climb
Route In Use: Vectors
Airspace, Class D: ZZZ

**Component: 1**
Aircraft Component: Pitot-Static System
Aircraft Reference: X
Problem: Malfunctioning

**Component: 2**
Aircraft Component: Airspeed Indicator
Aircraft Reference: X
Problem: Malfunctioning

**Component: 3**
Aircraft Component: FADEC / TCC
Manufacturer: L/H
Aircraft Reference: X
Problem: Malfunctioning

**Component: 4**
Aircraft Component: FADEC / TCC
Manufacturer: R/H
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
Function.Flight Crew : Pilot Not Flying
Qualification.Flight Crew : Instrument
Qualification.Flight Crew : Air Transport Pilot (ATP)
Qualification.Flight Crew : Multiengine
ASRS Report Number.Accession Number : 1994982

Events
Anomaly.Aircraft Equipment Problem : Critical
Anomaly.Deviation - Speed : All Types
Anomaly.Deviation / Discrepancy - Procedural : Weight And Balance
Anomaly.Inflight Event / Encounter : Bird / Animal
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 : Landed in Emergency Condition
Result.Flight Crew : Requested ATC Assistance / Clarification
Result.Flight Crew : Returned To Departure Airport
Result.Air Traffic Control : Provided Assistance

Assessments
Contributing Factors / Situations : Aircraft
Primary Problem : Aircraft

Narrative: 1
Shortly after take-off, climbing through approximately 600 ft. AGL we had a large bird strike. We lost the Captain's airspeed Indications as the bird had impacted the Captain's pitot tube and probably affected the air temperature probe, as we later on discovered loss of both engine Electronic Engine Controls (EEC's) as well. New hire First Officer (FO) was Pilot Flying (PF) with myself as Pilot Monitoring check pilot. This was the FO first PF leg. FO remained PF for the entire event. We continued the climb and flew into an overcast layer at 700 ft. AGL, climbing to approximately 2000 ft. MSL. We had the stick shaker, low speed aural alerts, loss of both flight directors. We quickly discovered the unreliable airspeed indicator. Completed some of the memory items associated with this issue. Told ATC we needed to return. We remained in IMC conditions for the remainder of the flight. Ran the checklist for unreliable airspeed. Overweight landing. Non routine landing, and subsequently ENG EEC alternate mode. We had an uneventful landing and taxi to the gate under our own power. Elected to use ATC vectors instead of holding. No injuries, no damage to aircraft other than pitot tube and possibly air temperature probe which affected the EEC's per maintenance call. Log book entries included. Bird strike with unreliable airspeed. Overweight landing. ENG EEC to alternate mode, and pulling voice recorder per company procedure. Received a phone call from ZZZ Approach Control where they filled out a bird strike paperwork via phone call with myself. Just want to say that our training works. This was the new hire FO first flying leg. Did an excellent job of maintaining aircraft
control under these particular failures. The Flight Attendants also did a great job of taking care of passengers and preparing the cabin for an unplanned return to the airport.

**Synopsis**

B737-800 Captain reported a bird strike after take-off. Captain's airspeed became unreliable and both EECs were lost requiring a return to the departure airport.
Myself, Lead, and 2 agents were working a turnaround flight in extremely inclement weather. We were in the process of unloading luggage for Aircraft X with a belt loader lined up to the aft compartment and 2 luggage carts lined up to the belt loader. Myself and 1 agent were scanning and loading bags onto the belt loader and 1 agent in the aft
stacking luggage. We were moving bags from one of the carts to the forward compartment when I noticed the beacon suddenly started flashing. I made several comments about it to my Agent. I then noticed the aircraft parked at Gate XX had its strobe lights on, so I assumed this may be due to the lowered visibility conditions. Shortly after the beacon turned on, while still loading bags, I began noticing an uptick in noise. I knew the APU was already running, so I thought what I was hearing was the air condition system kicking on. I quickly realized that it was sounding more like an engine, but figured it must be from the plane on [Gate] XX with the strobe lights. I moved to the other side of the aircraft near Engine #2 and noticed it was fully spooling. I see no wing walkers. Nobody with wands standing at the aft of the aircraft giving the engines running signal. Nothing. I immediately called over the Supervisor and they had nothing to offer other than agreeing with me when I said I would be filing a report on this as soon as I get home. I then went into the flight deck to speak with the 2 mechanics and explain to them that they just had an engine spooling while we were servicing the aircraft and that I will be filing a safety report. The one Mechanic, asked me if you saw the beacon on, wouldn't you assume the engines running? I simply said you can explain your side when the time is necessary and have a good day. To recap, an engine was started within feet of one of my agents working in the bin of the aircraft. Had they started Engine #1, this may have been a much more gruesome outcome. They had zero spotters. Nobody waving wands warning of an engine running. We had a belt loader and 2 carts next to the aircraft, yet another Mechanic who showed up told my Agent they didn’t see us working on the flight. I took pictures from all angles of the gate and challenge anyone to not notice the equipment. Then, the completely unbothered response and unbelievable disregard for the seriousness of the situation by the mechanics was frankly concerning. As professionals that have access to flight decks and aircraft turbine engines, any display of reckless behavior without immediate remorse should be terminated from their position. I unfortunately didn’t get a picture or video of the engine running as I was busy trying to get a Supervisor to the gate as soon as possible. Also, I had to answer the question about which Manager I reported to. However, I am not 100% sure if that is the actual Supervisor. I do know they were the Supervisor but unsure of their last name.

Synopsis

Air carrier Ramp Lead reported mechanics started an engine with ramp personnel and equipment in close proximity.
Time / Day
Date: 202302
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
ATC / Advisory.Ramp: ZZZ
Aircraft Operator: Air Carrier
Make Model Name: EMB ERJ 190/195 ER/LR
Crew Size.Number Of Crew: 2
Operating Under FAR Part: Part 121
Flight Plan: IFR
Mission: Passenger
Flight Phase: Parked
Route In Use: Vectors

Component: 1
Aircraft Component: FADEC / TCC
Manufacturer: #1
Aircraft Reference: X
Problem: Malfunctioning

Component: 2
Aircraft Component: FADEC / TCC
Manufacturer: #2
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
Qualification.Flight Crew: Instrument
Qualification.Flight Crew: Multiengine
Qualification.Flight Crew: Air Transport Pilot (ATP)
ASRS Report Number.Accession Number: 1976741
Human Factors: Confusion
Human Factors: Human-Machine Interface
Human Factors : Situational Awareness
Human Factors : Troubleshooting

Events
Anomaly.Aircraft Equipment Problem : Critical
Anomaly.Deviation / Discrepancy - Procedural : Published Material / Policy
Anomaly.Ground Event / Encounter : Jet Blast
Anomaly.Ground Event / Encounter : Person / Animal / Bird
Detector.Automation : Aircraft Other Automation
Detector.Person : Flight Crew
Were Passengers Involved In Event : N
When Detected : Aircraft In Service At Gate
Result.General : Flight Cancelled / Delayed
Result.General : Maintenance Action

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

Narrative: 1
Upon attempting shutdown after normal landing and taxi to the gate in ZZZ, both engines would not shut down. In an attempt to verify the engines were at idle as the Full Authority Digital Electronic Control (FADEC) will not allow shutdown outside of idle, both engines spooled up in reverse and blew dust and debris on the personnel. There was no reverse indication noted on the EICAS. I called Maintenance Control/Dispatch and they were not able to determine any abnormalities in the aircraft or flight data nor if the reversers deployed before shutdown.

Synopsis
ERJ-190 Pilot reported the engines would not shut down after gate arrival. Both FADECs had failed and allowed the engine to go into reverse during check list procedures for abnormal shut down.
**ACN: 1962581 (16 of 50)**

**Time / Day**
- Date: 202301
- Local Time Of Day: 0601-1200

**Place**
- Locale Reference.Airport: ZZZ.Airport
- State Reference: US
- Relative Position.Angle.Radial: 270
- Relative Position.Distance.Nautical Miles: 50
- Altitude.MSL.Single Value: 36000

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

**Aircraft**
- Reference: X
- Aircraft Operator: Air Carrier
- Make Model Name: B737 MAX 8
- Crew Size.Number Of Crew: 2
- Operating Under FAR Part: Part 121
- Flight Plan: IFR
- Mission: Passenger
- Flight Phase: Cruise
- Route In Use: Vectors

**Component**
- Aircraft Component: Powerplant Fuel Distribution

**Person: 1**
- Location Of Person.Aircraft: X
- Location In Aircraft: Flight Deck
- Reporter Organization: Air Carrier
- Function.Flight Crew: Captain
- Function.Flight Crew: Pilot Flying
- Qualification.Flight Crew: Multiengine
- Qualification.Flight Crew: Air Transport Pilot (ATP)
- Qualification.Flight Crew: Instrument
- Experience.Flight Crew.Last 90 Days: 131
- Experience.Flight Crew.Type: 8545
- ASRS Report Number.Accession Number: 1962581
- Human Factors: Confusion
- Human Factors: Situational Awareness
- Human Factors: Troubleshooting
- Human Factors: Communication Breakdown
- Communication Breakdown.Party1: Flight Crew
- Communication Breakdown.Party2: ATC
Person: 2
Location Of Person.Aircraft: X
Location In Aircraft: Flight Deck
Reporter Organization: Air Carrier
Function.Flight Crew: Pilot Not Flying
Function.Flight Crew: First Officer
Qualification.Flight Crew: Multiengine
Qualification.Flight Crew: Instrument
Qualification.Flight Crew: Air Transport Pilot (ATP)
Experience.Flight Crew.Last 90 Days: 110
Experience.Flight Crew.Type: 150
ASRS Report Number.Accession Number: 1962942
Human Factors: Communication Breakdown
Communication Breakdown.Party1: Flight Crew
Communication Breakdown.Party2: ATC

Events
Anomaly.Aircraft Equipment Problem: Critical
Anomaly.ATC Issue: All Types
Anomaly.Conflict: Ground Conflict, Less Severe
Anomaly.Deviation / Discrepancy - Procedural: Clearance
Anomaly.Ground Event / Encounter: Person / Animal / Bird
Anomaly.Inflight Event / Encounter: Fuel Issue
Detector.Automation: Aircraft Other Automation
Detector.Person: Flight Crew
Detector.Person: Flight Attendant
Were Passengers Involved In Event: N
When Detected: In-flight
Result.General: Flight Cancelled / Delayed
Result.Flight Crew: Diverted
Result.Flight Crew: Requested ATC Assistance / Clarification
Result.Flight Crew: Landed in Emergency Condition
Result.Flight Crew: Inflight Shutdown
Result.Air Traffic Control: Provided Assistance

Assessments
Contributing Factors / Situations: Aircraft
Primary Problem: Aircraft

Narrative: 1
I was the Captain and Pilot Flying on Aircraft X, ZZZ1 to ZZZ. Between fixes ZZZZZ and ZZZZZ1, and the Fuel Disagree Light Illuminated. The Fuel Disagree QRH Checklist was completed. A Fuel Leak was suspected and visually verified by the A Flight Attendant. The Fuel Leak Engine QRH Checklist was completed and resulted in shutting down #1 Engine. Dispatch was advised. ATC was advised by CPDLC. ATC issued a clearance to ZZZ2. Priority handling was requested with ATC. The One Engine Inoperative Landing QRH Checklist was completed and a single engine, Captain flown, landing in ZZZ2 was completed without further incident. Brake cooling calculations were completed, ARFF checked the aircraft brakes and cleared the aircraft to proceed. Brake Cooling results indicated, Proceed to the gate. We taxied to the gate and deplaned. Threats: 1. I only flew with the First Officer for two legs prior to the event leg. Company Standard procedures precluded this from becoming an issue. 2. QRH ambiguity. FUEL DISAGREE does not
account for fuel remaining in the center tank. An imbalance will not occur with center tank
fuel remaining. 3. QRH procedure. FUEL LEAK ENGINE, A change in fuel imbalance of 500
lbs. within 30 minutes or less. We chose to evaluate the fuel split for 10 minutes and
determined the volumetric flow rate of the leak was equivalent or greater than 500 lbs./30
minutes, thus confirming the leak 20 minutes earlier than if we had waited the entire 30
minutes like the QRH implies. 4. Once we cleared the runway in ZZZ2 and were inspected
by Fire Rescue, we were given a clearance to taxi to the gate. During the entire taxi time,
Airport Operations Personnel continuously transmitted on Ground frequency seemingly to
coordinate vehicular movement. This was an unnecessary distraction to us, because we
thought the transmissions could potentially involve the movement of our aircraft. 5. After
the Fire Rescue cleared us to taxi to the gate, Ground Control issued us the following
clearance: "Aircraft X, taxi XX, XY, XZ to the gate. Had we taxied immediately, our right
wing would have contacted the fire truck parked on the south side of Taxiway XX. We
queried Ground Control about the fire truck position. Ground Control specifically instructed
the fire truck to start moving so we could proceed. We then proceeded to the gate.

Narrative: 2

I was the First Officer and Pilot Monitoring on Aircraft X, ZZZ1 to ZZZ. We were between
ZZZZZ and ZZZZZ1, when the Fuel Disagree Light Illuminated. The Captain called for the
QRH, and The Fuel Disagree QRH Checklist was completed. A fuel leak was suspected and
visually verified by the A Flight Attendant. The Fuel Leak Engine QRH Checklist was
completed we shut down the #1 Engine. Dispatch was advised. ATC was advised through
CPDLC and we requested priority handling. ATC issued a clearance to ZZZ2. Priority
handling was also requested on both XXX.XX and XXX.XY. The One Engine Inoperative
Landing QRH Checklist was completed. The Captain kept the Flight Attendants and
Passengers informed throughout the flight. The Captain executed a nice and uneventful
single engine landing in ZZZ2. Brake cooling calculations were completed, Fire Rescue
Personnel checked the aircraft brakes and cleared the aircraft to proceed. Brake cooling
results indicated: proceed to the gate. We obtained taxi clearance and taxied to the gate.
The Passengers were deplaned, and their luggage was offloaded. 1. I am a new First
Officer. I flew with the Captain for two legs prior. This was not an issue due to company
standards and the Calm/Professional Environment created by the Captain. 2. FUEL
DISAGREE does not account for fuel still remaining in the center tank. An imbalance will
not occur with center tank fuel remaining and the center tank pumps on. 3. QRH
procedure. FUEL LEAK ENGINE, A specific change in procedure pertaining to" fuel
imbalance of 500 lbs. within 30 minutes or less." We decided to not wait for a 500 lb.
imbalance and computed numbers for 10 minutes. This allowed us to confirm the leak 20
minutes and over 300 lbs. sooner. 4. Prior to landing, we requested Fire Rescue to be
present for our landing. After landing, we were cleared to exit the Runway on Taxiway XX.
We requested to be inspected by Fire Rescue and exited the runway onto XX. We informed
Ground Control that our right engine was running. Ground Control informed us that Fire
Rescue was monitoring Ground Control Frequency and that we could communicate with
them on Ground Control. We were able to monitor constant communication between Fire
Rescue Personnel and Ground Control, but we never established communications with an
on scene Commander or any Fire Rescue Personnel. I was very concerned with the
potential of someone being pulled into the operating engine, or run over. We mitigated
this by counting Personnel. Fire Rescue reported to Ground Control that there was no
threat of a Brake Fire and that a vehicle would follow us to our gate. We were given a taxi
clearance to the gate, but there were two ARFF that were in the path of our Right Wing.
Ground Control was notified and the vehicles were promptly moved. During the entire taxi,
Airport Operations Personnel continuously transmitted on Ground frequency to coordinate
vehicular movement. This was an unnecessary distraction and could have interfered with
follow on emergent requests.
Synopsis

B737 MAX 8 flight crew reported a Fuel Imbalance condition in cruise. The flight crew ran the QRH and Check lists and performed an in flight shut down of the #1 Engine for a Fuel Leak. The flight crew diverted to the nearest suitable airport.
**ACN: 1960969 (17 of 50)**

**Time / Day**
- Date: 202212
- 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: Commercial Fixed Wing
- Crew Size.Number Of Crew: 2
- Operating Under FAR Part: Part 121
- Flight Plan: IFR
- Mission: Passenger
- Flight Phase.Other

**Component**
- 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: Instrument
- Qualification.Flight Crew: Multiengine
- Qualification.Flight Crew: Air Transport Pilot (ATP)
- ASRS Report Number.Accession Number: 1960969

**Human Factors**
- Confusion
- Human-Machine Interface
- Situational Awareness
- Training / Qualification
- Communication Breakdown

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

**Events**
Anomaly.Conflict : Ground Conflict, Critical
Anomaly.Deviation / Discrepancy - Procedural : Published Material / Policy
Anomaly.Ground Event / Encounter : Person / Animal / Bird
Detector.Person : Flight Crew
Were Passengers Involved In Event : N
When Detected : Taxi
Result.General : None Reported / Taken

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

Narrative: 1

Aircraft X ZZZ1-ZZZ. After Landing in ZZZ I proceed into ramp spot for parking gate XX. It is not uncommon to arrive with nobody available to park, so we wait for 1,2,3 ramp to assume their positions before pulling into the gate with safety area clear. As I am slowly moving down the J-line to park...watching Jetway and Guide Man...I notice someone running (off to my right). Person came out of nowhere as was not visible in safety area not wearing any safety vest. I slow a crawl as he runs right under the nose of the aircraft. I lose sight of person and watch the Guide Man motion me to continue, so I slowly continue last few feet. I assume the idiot that ran right under the nose of the aircraft was retrieving the chocks. After I set the brakes..before I shut down #2...ECAM FWD CARGO DOOR OPEN! I immediately shut down #2 then #1, hoping the idiot that popped the door was not sucked into the engine! After shutdown checklist, I called Ramp to advise of the unsafe ramp issues and was told that I should call Operations. Called Operations and was advised they would advise ramp lead. Ramp safety area is insecure in ZZZ! Always either equipment across the line or vehicles crossing in front of aircraft trying to park. Usually waiting for parking crew to show up or crew hunting for wands, or missing 1 of 3 crew. When parking I am focused on Guide Man and cannot continue looking left/right for intrusions to the safety area. In this case I just caught the person running across the J Line out of the corner of my eye. Yet the lead motioned me to continue. After parking brake set I had 10 seconds left on 3 minute clock for shutdown. This is when the ramp crew opened Forward Cargo door with both engines running and beacon on. ECAM FWD Cargo OPEN! I suggest perhaps the entire Parking Crew show up at the same time and be ready for aircraft parking with wands. They should not even approach the cargo doors with engines running beacon on! Have them watch the video of ramp crew sucked into the engine when they got too close! This is an accident waiting to happen. This happens not just in ZZZ but other stations as well. Please review the video at the gate.

Synopsis

Air carrier Captain reported Ground Personnel approached the aircraft and opened the Forward Cargo Door prior to engine shut down. There were no injuries.
ACN: 1959506 (18 of 50)

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

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

Environment
Flight Conditions: VMC
Light: Daylight

Aircraft
Reference: X
Aircraft Operator: Air Carrier
Make Model Name: B737-800
Crew Size. Number Of Crew: 2
Operating Under FAR Part: Part 121
Flight Plan: IFR
Mission: Passenger
Flight Phase: Taxi
Route In Use: Vectors

Person
Location Of Person.Aircraft: X
Location In Aircraft: Flight Deck
Reporter Organization: Air Carrier
Function.Flight Crew: Captain
Function.Flight Crew: Pilot Flying
Qualification.Flight Crew: Instrument
Qualification.Flight Crew: Multiengine
Qualification.Flight Crew: Air Transport Pilot (ATP)
ASRS Report Number. Accession Number: 1959506
Human Factors: Communication Breakdown
Human Factors: Situational Awareness
Human Factors: Training / Qualification
Communication Breakdown. Party1: Flight Crew
Communication Breakdown. Party2: Ground Personnel

Events
Anomaly.Conflict: Ground Conflict, Critical
Anomaly.Deviation / Discrepancy - Procedural: Clearance
Anomaly.Deviation / Discrepancy - Procedural: Published Material / Policy
Anomaly.Ground Event / Encounter: Vehicle
Anomaly.Ground Event / Encounter: Ground Equipment Issue
Anomaly.Ground Event / Encounter: Person / Animal / Bird
Detector. Person: Flight Crew
Were Passengers Involved In Event: N
When Detected: Taxi
Result: General: Flight Cancelled / Delayed

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

Narrative: 1
While taxiing into the gate, a Ramp Worker stood right next to where my nose gear would come to a halt. I stopped the airplane and shooed him out of the safety area. When I continued taxiing, he immediately stepped in front of the airplane again, prompting me to stop again. Eventually he stepped out of the safety area and I was able to taxi to our parking spot. This is the second time this has happened in ZZZ in the last two weeks and the fifth ASAP report I have filed about this behavior in the last 12 months. Equipment within the safety area, especially ladders and traffic cones stashed within the fuel cart box continue to be an issue in ZZZ as well. The Ramp Personnel is either not trained in safety protocols or has elected to ignore them. Replace the Manager who is in charge of the ramp, have a safety stand down with the Ramp Personnel and train everybody to Company safety standards. Offending Personnel must be removed because this is a safety issue which can lead to damage to equipment, injuries and loss of life.

Synopsis
B737-800 Captain reported Ramp Personnel were in the Gate Safety Area while taxiing in. The Captain stopped until the Ramp Personnel exited the area. As The Captain began to taxi forward, the same Ramp Agent moved back into the Safety Area. Again, the Captain stopped taxiing and waited for the Ramp Agent moved, then continued to park at the gate.
**ACN: 1955902 (19 of 50)**

**Time / Day**
- Date: 202212
- Local Time Of Day: 1801-2400

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

**Aircraft : 1**
- Reference: X
- ATC / Advisory: Ramp: ZZZ
- Aircraft Operator: Air Carrier
- Make Model Name: A300
- Crew Size: Number Of Crew: 2
- Operating Under FAR Part: Part 121
- Flight Phase: Parked

**Aircraft : 2**
- Reference: Y
- ATC / Advisory: Ramp: ZZZ
- Aircraft Operator: Air Carrier
- Make Model Name: Caravan 208B
- Crew Size: Number Of Crew: 1
- Operating Under FAR Part: Part 121
- Flight Phase: Taxi

**Aircraft : 3**
- Reference: Z
- ATC / Advisory: Ramp: ZZZ
- Aircraft Operator: Air Carrier
- Make Model Name: Caravan 208B
- Crew Size: Number Of Crew: 1
- Operating Under FAR Part: Part 121
- Flight Phase: Taxi

**Person : 1**
- Location Of Person: Gate / Ramp / Line
- Reporter Organization: Air Carrier
- Function: Maintenance: Technician
- Qualification: Maintenance: Powerplant
- Qualification: Maintenance: Airframe
- ASRS Report Number: Accession Number: 1955902
- Human Factors: Situational Awareness

**Person : 2**
- Location Of Person: Gate / Ramp / Line
- Reporter Organization: Air Carrier
Function: Maintenance : Technician
Qualification: Maintenance : Airframe
Qualification: Maintenance : Powerplant
ASRS Report Number: Accession Number: 1955903
Human Factors: Situational Awareness

Events
- Anomaly. Conflict: Ground Conflict, Critical
- Anomaly. Deviation / Discrepancy - Procedural: Published Material / Policy
- Anomaly. Ground Excursion: Ramp
- Anomaly. Ground Event / Encounter: Vehicle
- Anomaly. Ground Event / Encounter: Person / Animal / Bird
- Detector. Person: Maintenance
- When Detected: Taxi
- Result. General: None Reported / Taken

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

Narrative: 1
A300-600 outbound flight from Gate XX at ZZZ was pushed back 9 minutes early from scheduled departure time onto taxiway perpendicular from XX. Flight crew on Aircraft X encountered multiple repeats of a fault message, and requested Maintenance communication for action. It was determined Aircraft X had to return to parking gate and shutdown for MEL procedures. Aircraft Y was apparently given clearance to taxi out from parking, but Aircraft X was on one and only authorized taxiway awaiting connection of tow bar. The Pilot decided to cut through gate XX onto and drive through lanes to exit between aircraft loader and Aircraft X, along with the marshaller and myself, despite me giving multiple STOP signals with hands and flashlight. No acknowledgement was shown and no slowdown/braking, resulting in marshaller quickly moving to avoid being run over. Outbound Aircraft Y scheduled time of departure was XA00 Z. Aircraft Y left 20 minutes early, so there was no need for expedited taxi out which is not only unsafe, but directly in violation of ramp operations procedures, Company aircraft pushback/taxi procedures, and possibly ZZZ Airport operations. Aircraft Z left parking 29 minutes early (scheduled departure time XA15 Z) and was attempting to make an illegal and unsafe shortcut as previous feeder aircraft had done, but was turned back into parking by ZZZ Ramp personnel after they saw we had Maintenance Lift truck in between aircraft loader and L1 door of another aircraft, along with a marshaller fleeing for safety to avoid any possible injury and/or aircraft strikes/ vehicle damage. Crew members of all aircraft adhering to Ground Crew signals and keeping aircraft on designated taxi lines would greatly decrease the chance of costly equipment damage and injuries/ fatalities. Everyone involved in the operation should remain vigilant and safety conscious at all times, not just when in a hurry. Safety above all. When speaking to the feeder pilot about last night's incident the response was given "if they HAD to do it again, they would do it". This is an accident waiting to happen.

Narrative: 2
[Narrative contained no additional information.]

Synopsis
Maintenance Technician reported a ground conflict during taxi due to non-adherence to SOP.
**ACN: 1942706** (20 of 50)

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

**Place**
Locale Reference: Airport: ZZZZ.Airport
State Reference: FO

**Environment**
Flight Conditions: VMC

**Aircraft**
Reference: X
ATC / Advisory: TRACON: ZZZZ
Aircraft Operator: Air Carrier
Make Model Name: B767 Undifferentiated or Other Model
Crew Size: Number Of Crew: 3
Operating Under FAR Part: Part 121
Flight Plan: IFR
Mission: Passenger
Flight Phase: Takeoff / Launch

**Component**
Aircraft Component: Landing Gear
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
Experience: Flight Crew: Total: 1132
Experience: Flight Crew: Last 90 Days: 122
Experience: Flight Crew: Type: 1132
ASRS Report Number: Accession Number: 1942706
Human Factors: Workload
Human Factors: Distraction
Human Factors: Troubleshooting

**Person : 2**
Location Of Person: Aircraft: X
Location In Aircraft: Flight Deck
Function: Flight Crew: Pilot Not Flying
Function.Flight Crew : First Officer
Qualification.Flight Crew : Instrument
Qualification.Flight Crew : Air Transport Pilot (ATP)
Qualification.Flight Crew : Multiengine
Experience.Flight Crew.Total : 569
Experience.Flight Crew.Last 90 Days : 96
Experience.Flight Crew.Type : 96
ASRS Report Number.Accession Number : 1942732
Human Factors : Workload
Human Factors : Troubleshooting
Human Factors : Distraction

Person : 3
Location Of Person.Aircraft : X
Location In Aircraft : Flight Deck
Function.Flight Crew : Pilot Not Flying
Function.Flight Crew : First Officer
Qualification.Flight Crew : Instrument
Qualification.Flight Crew : Air Transport Pilot (ATP)
Qualification.Flight Crew : Multiengine
Experience.Flight Crew.Total : 663
Experience.Flight Crew.Last 90 Days : 35
Experience.Flight Crew.Type : 663
ASRS Report Number.Accession Number : 1942719
Human Factors : Workload
Human Factors : Troubleshooting
Human Factors : Distraction

Events
Anomaly.Aircraft Equipment Problem : Critical
Anomaly.Ground Event / Encounter : Person / Animal / Bird
Anomaly.Inflight Event / Encounter : Fuel Issue
Detector.Person : Flight Crew
When Detected : In-flight
Result.General : Flight Cancelled / Delayed
Result.Flight Crew : Landed in Emergency Condition
Result.Flight Crew : Overcame Equipment Problem
Result.Flight Crew : Requested ATC Assistance / Clarification
Result.Flight Crew : Returned To Departure Airport
Result.Air Traffic Control : Provided Assistance
Result.Air Traffic Control : Issued New Clearance
Result.Aircraft : Aircraft Damaged

Assessments
Contributing Factors / Situations : Aircraft
Primary Problem : Aircraft

Narrative: 1

XXXX takeoff roll hit bird at 150 kts., at V1. Continued to takeoff; unable to raise gear on departure, [requested priority handling]. Completed the following checklists. Anti-skid, gear disagree, overweight landing, fuel jettison, controllability checklist. Jettisoned 25,000 lbs. of fuel over water/nav point ZZZZZ, 12000 ft. XA34-XA42, spoke to Dispatch, Flight
Attendants (FA), passengers. Asked if FA can see damage. FA were unable. Asked Tower if they could see down locked landing gear. Tower confirmed landing gear down. Calculated landing distance, landed softly flaps 30, 160 kts. Landing weight 332,000 lbs. Runway XXR. XB20, taxi clear, stopped for fire department inspection, cleared to taxi hard stand XX.

**Narrative: 2**

During takeoff out of ZZZZ on XXR, a huge swan hit the aircraft around 150 kts. We immediately got an anti-skid caution message on the EICAS and continued the takeoff. When we had a positive rate and tried to get the gear up, the gear wouldn't come up and stopped in the "off" position. We immediately asked ATC to come back and [requested priority handling]. However, we were too heavy so we went out to dump fuel before landing back on XXR. We performed the following checklist before coming back for a safe landing. Anti-skid, gear disagree, fuel jettison, overweight landing, and structural damage/controllability checklist. Once we configured for an overweight landing of approximately 340.0 GW we got a "gear not down" warning message and confirmed with Tower that our gear was down for landing. We landed safely and got crash fire and rescue to check the aircraft of leaks and our gear before proceeding into the parking stand.

**Narrative: 3**

During takeoff roll on ZZZZ XXR we hit a swan taking flight with the right landing gear at approximately 150 kts. The ANTISKID EICAS ILLUMINATED. After takeoff the landing gear handle would not raise and the GEAR DISAGREE EICAS illuminated. We [requested priority handling] and dumped approximately 25,000 lbs. of fuel offshore at 12000 ft. We conducted Gear Disagree, Fuel Jettison, Antiskid, Overweight Landing, and Structural Damage/Controllability Checks. We returned to ZZZZ with uneventful flaps 30 landing on XXR.

**Synopsis**

B767 Flight Crew reported a bird strike during takeoff roll resulted in inability to raise the landing gear so they returned to the airport.
ACN: 1942429 (21 of 50)

Time / Day
Date: 202210
Local Time Of Day: 0001-0600

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

Environment
Flight Conditions: VMC
Light: Night

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

Component: 1
Aircraft Component: Parking Brake
Aircraft Reference: X
Problem: Malfunctioning

Component: 2
Aircraft Component: APU
Aircraft Reference: X
Problem: Improperly Operated

Component: 3
Aircraft Component: Parking Brake
Aircraft Reference: X
Problem: Improperly Operated

Component: 4
Aircraft Component: Normal Brake System
Aircraft Reference: X
Problem: Malfunctioning

Component: 5
Aircraft Component: AC Generation
Aircraft Reference: X
Problem: Improperly Operated
Component : 6
Aircraft Component : Hydraulic Main System
Aircraft Reference : X
Problem : Improperly Operated

Person : 1
Location Of Person.Aircraft : X
Location In Aircraft.Other
Reporter Organization : Air Carrier
Function.Maintenance : Technician
Qualification.Maintenance : Powerplant
Qualification.Maintenance : Airframe
ASRS Report Number.Accession Number : 1942429
Human Factors : Confusion
Human Factors : Situational Awareness
Human Factors : Communication Breakdown
Communication Breakdown.Party1 : Maintenance
Communication Breakdown.Party2 : Maintenance

Person : 2
Location Of Person.Aircraft : X
Location In Aircraft.Other
Reporter Organization : Air Carrier
Function.Maintenance : Technician
Qualification.Maintenance : Powerplant
Qualification.Maintenance : Airframe
ASRS Report Number.Accession Number : 1942431
Human Factors : Confusion
Human Factors : Communication Breakdown
Human Factors : Situational Awareness

Person : 3
Location Of Person.Aircraft : X
Location In Aircraft : Flight Deck
Reporter Organization : Air Carrier
Function.Maintenance : Technician
Qualification.Maintenance : Powerplant
Qualification.Maintenance : Airframe
ASRS Report Number.Accession Number : 1942432
Human Factors : Human-Machine Interface
Human Factors : Confusion
Human Factors : Communication Breakdown
Human Factors : Situational Awareness

Person : 4
Location Of Person.Aircraft : X
Location In Aircraft : Flight Deck
Reporter Organization : Air Carrier
Function.Maintenance : Technician
Qualification.Maintenance : Powerplant
Qualification.Maintenance : Airframe
Narrative: 1

Once I pushed the aircraft to its destination with the tug I gave the brakes on signal to Person A (left seat). He responded back with a close fist indicating that the brakes were set. I moved the tug from the plane then went to the side to engage the disengage switch. When I started approaching the plane on foot I noticed the plane started moving. At this moment I’m yelling screaming and jumping trying to get Person A’s attention saying Brakes Brakes Brakes! At this moment I realize they can't stop or just can't hear me. So I tried to move the tug out of the way but was too late. The plane crashed into the Tug. No hydraulic pressure! Put power on the plane via GPU and turn the HYD pumps on so we have brakes before we tow out of the hanger.

Narrative: 2

Once I pushed the aircraft to its destination with the tug I gave the brakes on signal to Person A (left seat). He responded back with a close fist indicating that the brakes were set. I moved the tug from the plane then went to the side to engage the disengage switch. When I started approaching the plane on foot I noticed the plane started moving. At this moment I’m yelling screaming and jumping trying to get Person A’s attention saying Brakes Brakes Brakes! At this moment I realize they can't stop or just can't hear me. So I tried to move the tug out of the way but was too late. The plane crashed into the Tug. No hydraulic pressure! Put power on the plane via GPU and turn the HYD pumps on so we have brakes before we tow out of the hanger.

Narrative: 3

Approximately XA00 I was assigned to taxi an Aircraft X from the hanger to the line. I saw Person A do the walk around in the hanger before he entered the plane. I had the log book
in hand and proceeded to enter the plane and met Person A at the cockpit door. I gave him the opportunity to choose which seat to pick. He chose the left seat and I in the right. The plane was pulled up to the tug and we were taken to the ramp on The Company side. The plane was towed with no power applied which is a dark cockpit. When we were parked on the ramp Person A turned on the power for light and to verify that the brakes had pressure. He mentioned to me that the plane was moving so I immediately turned on the hydraulic pumps thinking it would stop the roll but it didn't help. I had the check list in hand to start reading but this event took over the process. While Person A desperately trying to get the plane to stop by using the brake handle and peddles. I could hear Person B shouting stop brakes. The plane rolled into the tug. Left hand engine inlet and fan cowl damaged occurred to both. Hydraulic pressure for brakes is only AC power no DC so batteries would not turn pumps on. The APU gives AC power for pumps. It takes about 3 minutes to start AC power when using APU as a source. No time to start APU when the plane was rolling. Tug was pulled out from the nose to quickly to make sure we had brake pressure. Before disconnecting from the tug verify that the plane has brake pressure by the cockpit personal, by means of hand and verbal communication with eye contact.

**Narrative: 4**

Aircraft was unhooked from tug and parking brake was set when called for by Person B. Then batteries were turned on because it was dark inside plane and I noticed that the parking brake light was not on but handle was in up/set position. I told right seat Person A, I have no light/ brake on light and was processing situation and was thinking it should be on but maybe it comes on when EICAS messages appear after initial power up. Next I either heard Person B which cause me to look out window and noticed aircraft rolling. I immediately starting pushing brake pedals and got no brakes, I may have cycled parking brake handle a couple of times and told Person A turn pumps on. Person A said I have them on or they were on. Not sure of exact reason why we had no brakes, we have had this problem once or twice before in the past. Make sure hydraulic brake pressure is pressurized and brakes set before unhooking tug from aircraft after maintenance has been performed.

**Synopsis**

Technicians reported not following procedures caused an aircraft to collide with a tug during towing operations.
ACN: 1942145 (22 of 50)

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

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

**Environment**
- Flight Conditions: VMC

**Aircraft: 1**
- 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
- Mission: Passenger
- Flight Phase: Takeoff / Launch

**Aircraft: 2**
- Reference: Y
- Make Model Name: Any Unknown or Unlisted Aircraft Manufacturer

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

**Person**
- Location Of Person: Aircraft: X
- Location In Aircraft: Flight Deck
- Reporter Organization: Air Carrier
- Function: Flight Crew: Captain
- Function: Flight Crew: Pilot Flying
- Qualification: Flight Crew: Air Transport Pilot (ATP)
- Qualification: Flight Crew: Instrument
- Qualification: Flight Crew: Multiengine
- Experience: Flight Crew: Total: 1116
- Experience: Flight Crew: Last 90 Days: 166
- Experience: Flight Crew: Type: 1116
- ASRS Report Number: Accession Number: 1942145

**Events**
- Anomaly: Aircraft Equipment Problem: Critical
- Anomaly: Conflict: Airborne Conflict
- Anomaly: Deviation / Discrepancy - Procedural: Published Material / Policy
Anomaly.Deviation / Discrepancy - Procedural : Clearance
Anomaly.Inflight Event / Encounter : Bird / Animal
Detector.Automation : Aircraft RA
Detector.Person : Flight Crew
When Detected : In-flight
Result.Flight Crew : Returned To Departure Airport
Result.Flight Crew : Landed in Emergency Condition
Result.Aircraft : Aircraft Damaged

Assessments

Contributing Factors / Situations : Aircraft
Primary Problem : Aircraft

Narrative: 1

While departing Runway XXL in the process of rotation the aircraft struck a large bird which was ingested into engine number one. The aircraft immediately started to shake and the engine initially seized and then began to surge. [Priority Handling] was declared we received vectors from air traffic control and asked for an immediate return to the airport. Ran QRC checklist and then made an overweight landing. No indication of fire, however the engine produced intermittent power. Initially we were cleared for XXC however due to aircraft’s control ability we were not able to make the turn ATC then offered XYC to which we excepted a clearance for landing. In process of landing XYC we did encounter an RA which was flown successfully while also maintaining visual separation.

Synopsis

Air Carrier Flight Crew flying B737 aircraft reported bird ingestion into number one engine on takeoff rotation.
ACN: 1937796 (23 of 50)

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

Place
Locale Reference. ATC Facility: OWD. Tower
State Reference: MA
Altitude.AGL.Single Value: 15

Environment
Flight Conditions: Marginal
Weather Elements / Visibility: Fog
Weather Elements / Visibility. Visibility: 5
Light: Dusk
Ceiling. Single Value: 1000

Aircraft
Reference: X
ATC / Advisory. Tower: OWD
Aircraft Operator: Personal
Make Model Name: Small Transport, Low Wing, 2 Turbojet Eng
Crew Size. Number Of Crew: 2
Operating Under FAR Part: Part 91
Flight Plan: IFR
Mission: Personal
Flight Phase: Landing

Person
Location Of Person. Aircraft: X
Location In Aircraft: Flight Deck
Reporter Organization: Personal
Function.Flight Crew: Captain
Function.Flight Crew: Pilot Flying
Qualification.Flight Crew: Flight Instructor
Qualification.Flight Crew: Instrument
Qualification.Flight Crew: Multiengine
Qualification.Flight Crew: Air Transport Pilot (ATP)
Experience.Flight Crew.Total: 26000
Experience.Flight Crew.Last 90 Days: 100
Experience.Flight Crew.Type: 200
ASRS Report Number. Accession Number: 1937796
Human Factors: Situational Awareness

Events
Anomaly.Conflict: Ground Conflict, Critical
Anomaly.Deviation - Speed: All Types
Anomaly.Deviation / Discrepancy - Procedural: Published Material / Policy
Anomaly.Ground Event / Encounter: Person / Animal / Bird
Detector.Person: Flight Crew
When Detected: In-flight
Result: Flight Crew: Executed Go Around / Missed Approach
Result: Flight Crew: Took Evasive Action

**Assessments**

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

**Narrative: 1**

I was flying from right seat on this personal flight back from west coast, last leg. I am very familiar with this airport, and I am aware that around dusk, deer congregate on and around runway. My worst fear became reality when in the flare we saw a big deer running from left to right towards us. I immediate initiated an emergency go around, slammed the throttles full forward and pitched up to avoid a collision. In the subsequent go around procedures I may have exceeded the flaps retraction speeds, because of the adrenaline rush and the "whoa" factor. At level off attitude composed myself and cleaned up airplane per AFM. No damage done, and we avoided the deer. Returned to airport and after runway sweep by FBO, conducted uneventful landing. Contributing factor, fatigue, after long flight, broken fence at the airport, hence numerous wildlife especially at dusk. Informed authorities after event to please address the issue.

**Synopsis**

Jet pilot reported a near collision just before landing with a deer on the runway at OWD airport and performed a go-around.
ACN: 1935856

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

Place
- Locale Reference.Airport: ZZZ.Airport
- State Reference: US
- Relative Position.Distance.Nautical Miles: 5
- Altitude.MSL.Single Value: 5500

Environment
- Flight Conditions: VMC
- Light: Night

Aircraft
- Reference: X
- ATC / Advisory.Tower: ZZZ
- Aircraft Operator.Other
- Make Model Name: DA20-C1 Eclipse
- Crew Size.Number Of Crew: 2
- Operating Under FAR Part: Part 91
- Flight Plan: VFR
- Mission: Training
- Flight Phase: Cruise
- Airspace.Class E: ZZZ

Component
- Aircraft Component: Cockpit Window
- Aircraft Reference: X
- Problem: Failed

Person
- Location Of Person.Aircraft: X
- Location In Aircraft: Flight Deck
- Reporter Organization: FBO
- Function.Flight Crew: Instructor
- Qualification.Flight Crew: Flight Instructor
- Qualification.Flight Crew: Commercial
- Qualification.Flight Crew: Instrument
- Qualification.Flight Crew: Multiengine
- Experience.Flight Crew.Total: 640
- Experience.Flight Crew.Last 90 Days: 123
- Experience.Flight Crew.Type: 495
- ASRS Report Number.Accession Number: 1935856
- Human Factors: Training / Qualification
- Human Factors: Troubleshooting
- Human Factors: Workload
- Human Factors: Distraction
**Events**

Anomaly.Aircraft Equipment Problem : Critical  
Anomaly.Inflight Event / Encounter : Bird / Animal  
Result.Flight Crew : Requested ATC Assistance / Clarification  
Result.Flight Crew : Overcame Equipment Problem  
Result.Aircraft : Aircraft Damaged

**Assessments**

Contributing Factors / Situations : Aircraft  
Primary Problem : Aircraft

**Narrative: 1**

While enroute from ZZZ to ZZZ1 on a night training flight we encountered what we believed to be a bird strike while cruising at 5500 ft. approximately 105 miles from our destination. Initial indications were that a bird had struck the canopy of the aircraft causing the window on the pilot's side to come off of the plastic rails and into the cabin. We notified ATC of the strike and advised them that we would assess the situation and notify them of any intentions to divert to a closer airport. After thoroughly inspecting the canopy and the leading edge of each wing we decided that there was not a threat to the safety of the flight by continuing on to our destination. All engine indications were normal and continued to remain normal. Based on our ETA at ZZZ1, we were scheduled to land when the Control Tower would still be operating and ARFF available. Upon further inspection after landing, there was no significant damage to the aircraft and no damage other than the pilot's side window.

**Synopsis**

A Flight Instructor reported "a bird had struck the canopy of the aircraft causing the window on the pilot's side to come off of the plastic rails and into the cabin."
ACN: 1935539  (25 of 50)

Time / Day
Date: 202209
Local Time Of Day: 1201-1800

Place
Locale Reference.Airport: ZZZ.Airport
State Reference: US
Relative Position.Distance.Nautical Miles: 1
Altitude.MSL.Single Value: 5500

Environment
Flight Conditions: VMC
Weather Elements / Visibility. Visibility: 10
Light: Daylight
Ceiling. Single Value: 25000

Aircraft
Reference: X
Aircraft Operator: Personal
Make Model Name: Scout 8GCBC
Crew Size.Number Of Crew: 1
Operating Under FAR Part: Part 91
Flight Plan: None
Mission: Personal
Flight Phase: Cruise
Route In Use: Direct
Airspace.Class G: ZZZ

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: Instrument
Qualification.Flight Crew: Commercial
Qualification.Flight Crew: Multiengine
Experience.Flight Crew.Total: 1675
Experience.Flight Crew.Last 90 Days: 33
Experience.Flight Crew.Type: 75
ASRS Report Number.Accession Number: 1935539
Human Factors: Situational Awareness
Human Factors: Confusion

Events
Anomaly.Conflict: NMAC
Anomaly.Deviation / Discrepancy - Procedural: Published Material / Policy
Anomaly.Inflight Event / Encounter: Bird / Animal
I departed ZZZ1 in Aircraft X at approximately XA:25 am enroute to ZZZ2 as a fuel stop with a final destination of ZZZ3. After clearing ZZZ4 southeastern boundary of Class Bravo airspace, I climbed to 5500 ft. for the cruise to ZZZ2. The weather conditions were VFR. As I crossed over the top of ZZZ at 5500, I saw a skydiver pass directly in front of the aircraft. I do not know the horizontal distance between the aircraft and the skydiver, but I would estimate less than 150 ft. I had been monitoring ZZZ Approach. After the incident, I changed to the local frequency. Approximately 5 minutes after the near miss, I heard the Ground Operations asking the Jump Pilot if they were communicating with me. I replied that we were not in contact. Ground Operations advised me that there was a NOTAM for jumping operations. I responded that I had not checked the NOTAMs for ZZZ since I wasn't landing there. I had no further contact with Ground Operations, however, I heard them asking the Pilot of the jump plane to contact ZZZ1 Approach for more information about my aircraft. The Ground Ops person also referenced that there was video of the incident. I landed at ZZZ2 uneventfully for refueling.

Synopsis
8GCBC Pilot reported failure to read NOTAM and flew through an area of skydiving activity resulted in NMAC with a skydiver.
Time / Day
Date : 202209
Local Time Of Day : 0601-1200

Place
Locale Reference.Airport : ZZZ.Airport
State Reference : US
Relative Position.Distance.Nautical Miles : 10
Altitude.MSL.Single Value : 2200

Environment
Flight Conditions : VMC
Weather Elements / Visibility.Visibility : 20
Light : Daylight

Aircraft
Reference : X
ATC / Advisory.CTAF : ZZZ
Aircraft Operator : Personal
Make Model Name : Small Aircraft, Low Wing, 1 Eng, Fixed Gear
Crew Size.Number Of Crew : 2
Operating Under FAR Part : Part 91
Flight Plan : IFR
Mission : Personal
Nav In Use : GPS
Flight Phase : Final Approach
Airspace.Class E : ZZZ

Component
Aircraft Component : Cockpit Window
Aircraft Reference : X
Problem : Failed

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 : Instrument
Qualification.Flight Crew : Private
Experience.Flight Crew.Total : 370
Experience.Flight Crew.Last 90 Days : 7
Experience.Flight Crew.Type : 43
ASRS Report Number.Accession Number : 1935051

Events
Anomaly.Aircraft Equipment Problem : Critical
Anomaly.Inflight Event / Encounter : Bird / Animal
When Detected : In-flight
Result.General : Maintenance Action
Result.Flight Crew : Landed As Precaution
Result.Aircraft : Aircraft Damaged

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

Narrative: 1
The incident occurred at approximately XA00 Day 0 during an IFR XC from ZZZ1 to ZZZ in VMC. While flying the full published RNAVXX approach to ZZZ, after being cleared for the approach, completing the procedure turn and established inbound around ZZZZZ (~10NM from ZZZ) at 2200 ft. in approach configuration (110kts 50% flap, Autopilot) a bird (eagle?) struck the windshield high on the pilot side. Pilot was wearing foggles for the approach while the co-pilot/safety pilot was monitoring the UNICOM and pattern traffic. No birds had been observed in the vicinity until the strike. The impact created a large hole in the windshield sending plexiglass, bird feathers blood and gore into the face and torso of the pilot as well as throughout the cabin. There was considerable wind noise making radio/intercom communication difficult. Bird was lodged head down at the windshield / fuselage roof intersection and had penetrated several inches into the composite roof structure. Bird was removed from that location by pilot to regain visibility. Co-pilot radioed ATC/Unicom (there were two other aircraft in the pattern) to report the strike while pilot flew plane and landed safely. Injuries were minor cuts and bruises to the pilot. IFR plan was closed on the ground. Only one hit was heard/felt and the engine continued to run normally. So not sure if the bird struck the prop before hitting the windshield or if the bird struck from above without striking the prop. Given the angles involved it was not possible to see and avoid. Staff at ZZZ advised that this was the second bird strike in the vicinity of the airport in the last week.

Synopsis
GA pilot reported while on approach a bird strike penetrated the windshield and resulted in considerable noise and wind but pilot made a safe landing.
ACN: 1934579 (27 of 50)

Time / Day
Date: 202209

Place
Altitude.AGL.Single Value: 0

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

Person
Location Of Person: Gate / Ramp / Line
Reporter Organization: Air Carrier
Function.Ground Personnel: Ramp
Function.Ground Personnel: Vehicle Driver
ASRS Report Number.Accession Number: 1934579
Human Factors: Other / Unknown
Human Factors: Communication Breakdown
Human Factors: Troubleshooting
Human Factors: Training / Qualification
Communication Breakdown.Party1: Ground Personnel
Communication Breakdown.Party2: Flight Crew

Events
Anomaly.Flight Deck / Cabin / Aircraft Event: Other / Unknown
Anomaly.Deviation / Discrepancy - Procedural: Published Material / Policy
Anomaly.Ground Event / Encounter: Loss Of Aircraft Control
Anomaly.Ground Event / Encounter: Ground Equipment Issue
Anomaly.Ground Event / Encounter: Person / Animal / Bird
Detector.Person: Ground Personnel
Were Passengers Involved In Event: N
When Detected: Taxi
Result.General: None Reported / Taken

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

Narrative: 1
Hooking up tow strap prior to departure the pilot released brakes without communication with ramp. My hands were almost pinched in between the tow strap and the nose landing
strut. The operations manual states flight crew must communicate with ramp before brakes are released.

**Synopsis**

Air carrier Ground Personal reported the Captain released the brakes after pushback without any communication. The ground person states their hand was nearly caught between the tow bar and strut when the aircraft moved.
**ACN: 1933727 (28 of 50)**

**Time / Day**
- Date: 202209
- Local Time Of Day: 1201-1800

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

**Aircraft**
- Reference: X
- ATC / Advisory: TRACON: ZZZ
- Aircraft Operator: Air Carrier
- Make Model Name: A321
- Crew Size: Number Of Crew: 2
- Operating Under FAR Part: Part 121
- Flight Plan: IFR
- Mission: Passenger
- Flight Phase: Climb
- Flight Phase: Initial Climb
- Airspace: Class B: ZZZ

**Component**
- Aircraft Component: Engine
- 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
- Qualification: Flight Crew: Instrument
- Qualification: Flight Crew: Multiengine
- Qualification: Flight Crew: Air Transport Pilot (ATP)
- ASRS Report Number: Accession Number: 1933727
- Human Factors: Confusion
- Human Factors: Distraction
- Human Factors: Time Pressure
- Human Factors: Troubleshooting
- Human Factors: Workload

**Events**
- Anomaly: Aircraft Equipment Problem: Critical
- Anomaly: Flight Deck / Cabin / Aircraft Event: Smoke / Fire / Fumes / Odor
- Anomaly: Inflight Event / Encounter: Bird / Animal
- Detector: Person: Flight Crew
- When Detected: In-flight

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

**Narrative: 1**

On climbout of ZZZ smelled a food burning smell. I thought Flight Attendant (FA) was cooking our crew meals. Got a call from FAA later during climb that smell was strong throughout cabin. First Officer (FO) then said he saw a bird go by on climbout that he thought we may have hit. After discussing issue with Operations and Maintenance control via crew phone, I decided to return to ZZZ and land overweight per their suggestion and the fact that we had the fume event happening. [Priority handling was requested] for overweight landing and bird strike on takeoff. Airport Rescue and Firefighting (ARFF) was called out and they followed us to gate inspecting the engine for damage and to ensure no fire ignited. Passengers were deplaned. Got a new plane and departed for ZZZ again 4 hours late. Bird strike was in number #1 engine as evidenced by blood and feather debris noted by us and maintenance on post flight walk around. This was written up in Aircraft Maintenance Logbook (AML). Overweight landing was written up in AML with required parameters also. Another AML write up was done for item not related to this event as well. No suggestions.

**Synopsis**

A321 pilot reported a bird strike on departure caused a fumes event and a return to the airport for an overweight landing.
ACN: 1933064 (29 of 50)

Time / Day
Date: 202209
Local Time Of Day: 1201-1800

Place
Locale Reference.Airport: ZZZ.Airport
State Reference: US
Relative Position.Angle.Radial: 072
Relative Position.Distance.Nautical Miles: 0.5
Altitude.AGL.Single Value: 1000

Environment
Flight Conditions: VMC
Light: Daylight

Aircraft: 1
Reference: X
ATC / Advisory.CTAF: ZZZ
Aircraft Operator: Personal
Make Model Name: Small Aircraft
Crew Size.Number Of Crew: 1
Operating Under FAR Part: Part 91
Flight Plan: None
Mission: Personal
Flight Phase: Final Approach
Route In Use: Visual Approach
Airspace.Class G: ZZZ

Aircraft: 2
Reference: Y
Make Model Name: Any Unknown or Unlisted Aircraft Manufacturer
Mission: Skydiving
Airspace.Class G: ZZZ

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: Air Transport Pilot (ATP)
Qualification.Flight Crew: Instrument
Qualification.Flight Crew: Multiengine
Experience.Flight Crew: Total: 20000
Experience.Flight Crew: Last 90 Days: 30
Experience.Flight Crew: Type: 1000
ASRS Report Number.Accession Number: 1933064

Events
Anomaly.Conflict : NMAC
Anomaly.Deviation / Discrepancy - Procedural : Published Material / Policy
Anomaly.Deviation / Discrepancy - Procedural : FAR
Anomaly.Inflight Event / Encounter : Bird / Animal
Detector.Person : Flight Crew
Miss Distance.Horizontal : 500
Miss Distance.Vertical : 100
When Detected : In-flight
Result.Flight Crew : Took Evasive Action

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

Narrative: 1
While flying a left closed traffic pattern for touch and goes on Runway XX at above named airport, a drop zone aircraft dropped skydivers onto the drop zone. Prevailing winds were from the south, with a slight headwind component favoring Runway XX. Normally the drop zone pilots are pretty expert at releasing the parachutists from the plane with prevailing winds in mind. However, in this event, the position from which the jumpers began their freefall, and the point at which they opened their parachutes, combined with the prevailing winds, caused several of them to be in a position of slightly north of the runway. The desired primary landing zone for them is south of the runway. Turning final for Runway XX at flight idle and full landing flaps, I saw several parachutists encroaching upon the final approach course. One was approximately 100 feet below the position of my aircraft, and approximately 750-1500 feet ahead, and crossing the centerline of the runway from north to south as he attempted to make it to the normally preferred parachute landing zone. One other parachutist had already crossed the runway centerline from north to south and was clear of the runway. And two others were north of the runway and elected wisely to remain north of the runway and land there. I discontinued the approach and made a climbing right turn away from the airport and remained clear of the traffic pattern for several minutes, re-entering the pattern to land 5 minutes later. It is often stated to anyone inquiring, and is included on the ASOS, that performing a standard traffic pattern will keep all airplane traffic clear of the skydivers. This is entirely dependent upon the safety protocol embraced or not embraced by the drop zone, and how effectively they are training and leading the people who skydive at their facility. In the future, I intend to NOT be in the traffic pattern at the same time this operation has aircraft on a jump run. The accuracy in placement of the skydivers into a position from which they can safely reach the landing zone is in question. And the understanding of the skydivers to not cross the runway centerline of a runway in use seems to be in question as well. The only thing I can do is to maintain an understanding of these observations, and remain clear of the traffic pattern any time the jump plane is getting ready to drop a load of skydivers.

Synopsis
GA pilot reported a NMAC with a skydiving aircraft and skydivers during final approach to a non-towered airport requiring evasive action to avoid hitting the skydivers.
**Time / Day**

Date: 202209
Local Time Of Day: 1201-1800

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

**Aircraft**
Reference: X
ATC / Advisory.TRACON: ZZZ
Aircraft Operator: Air Carrier
Make Model Name: A320
Crew Size. Number Of Crew: 2
Operating Under FAR Part: Part 121
Flight Plan: IFR
Mission: Passenger
Airspace. Class E: ZZZ

**Component**
Aircraft Component: Cockpit Window
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: Multiengine
ASRS Report Number. Accession Number: 1932957

**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: Instrument
Qualification. Flight Crew: Multiengine
ASRS Report Number. Accession Number: 1933507

**Events**
Anomaly.Aircraft Equipment Problem : Critical
Anomaly.Inflight Event / Encounter : Bird / Animal
Detector.Person : Flight Crew
When Detected : In-flight
Result.General : Maintenance Action
Result.Flight Crew : Returned To Departure Airport

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

Narrative: 1
After takeoff, at around 2,500 feet, a large bird struck the aircraft near the lower front edge of the FO's front window. A large smear of bird remains covered the window after the event. Upon inspection we observed what looked like a crack in the window. I then informed ATC of the event and asked for delay vectors while we worked some procedures for the event and would soon be requesting vectors for a return to ZZZ. I advised dispatch through ACARS of the event and that we would be returning. We then went through the Overweight Landing procedure as we were around 157,000 pounds. I then called the lead FA and informed here of the situation and then made a PA to the passengers of the situation and that we would be returning to ZZZ. We were given vectors to [Runway] XXR in ZZZ and made an uneventful landing. The max brake temperature reached was 460 degrees. Upon reaching the gate maintenance took the aircraft out of service to inspect the window and do the Overweight landing checks. The aircraft was deplaned and all passengers were directed to a replacement aircraft. The flight was resumed to ZZZ1 without further incident.

Narrative: 2
Approximately 5 minutes after takeoff and roughly 2,500 ft AGL we struck a bird that hit just below the windscreen on the FO's position. There were a large amount of remains splattered on the windscreen. I observed what I believed to be a crack on the lower right portion of the outer window. The Captain determined that it would be best to return to station and I fully supported his decision. We contacted ATC and asked for vectors off the SID to evaluate the situation and take the appropriate action. Dispatch was notified, the lead FA was notified and the passengers informed of the situation and our decision to return. We then went through the overweight landing procedure and set up for a landing back at ZZZ. ATC vectored us for a landing on [Runway] XXR back in ZZZ and we landed without incident. Upon arrival back at the gate we were informed that the aircraft required an inspection for the bird strike and overweight landing and would be out of service for at least 2 hours. Our pax deplaned and we were given an other plane for the flight to ZZZ1. We resumed our flight to ZZZ1 without incident.

Synopsis
A320 Flight Crew reported a bird strike during takeoff resulting in a crack on the First Officer's lower front edge window. The flight crew informed ATC and Dispatch of the situation and decided to return to the departure airport.
ACN: 1932605 (31 of 50)

Time / Day
Date: 202209

Place
Altitude.AGL.Single Value: 0

Environment
Flight Conditions: VMC

Aircraft
Reference: X
ATC / Advisory.Ramp: ZZZ
Aircraft Operator: Air Carrier
Make Model Name: B777 Undifferentiated or Other Model
Crew Size.Number Of Crew: 2
Operating Under FAR Part: Part 121
Flight Plan: IFR
Mission: Passenger
Flight Phase: Taxi

Person: 1
Location Of Person.Aircraft: X
Location In Aircraft: Flight Deck
Reporter Organization: Air Carrier
Function.Flight Crew: First Officer
Function.Flight Crew: Pilot Not Flying
Qualification.Flight Crew: Air Transport Pilot (ATP)
Qualification.Flight Crew: Instrument
Qualification.Flight Crew: Multiengine
Experience.Flight Crew.Total: 5672
Experience.Flight Crew.Last 90 Days: 163
Experience.Flight Crew.Type: 242
ASRS Report Number.Accession Number: 1932605
Human Factors: Communication Breakdown
Human Factors: Other / Unknown
Human Factors: Situational Awareness
Human Factors: Time Pressure
Human Factors: Confusion
Communication Breakdown.Party1: Flight Crew
Communication Breakdown.Party2: Ground Personnel

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 : 4285
Experience.Flight Crew.Last 90 Days : 164
Experience.Flight Crew.Type : 583
ASRS Report Number.Accession Number : 1932606

Human Factors : Time Pressure
Human Factors : Situational Awareness
Human Factors : Other / Unknown
Human Factors : Communication Breakdown
Human Factors : Confusion
Communication Breakdown.Party1 : Flight Crew
Communication Breakdown.Party2 : Ground Personnel

Events
Anomaly.Flight Deck / Cabin / Aircraft Event : Other / Unknown
Anomaly.Conflict : Ground Conflict, Critical
Anomaly.Deviation / Discrepancy - Procedural : Published Material / Policy
Anomaly.Ground Event / Encounter : Person / Animal / Bird
Detector.Person : Flight Crew
Were Passengers Involved In Event : N
When Detected : Taxi
Result.Flight Crew : Took Evasive Action

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

Narrative: 1
We pushed back from [the gate]. It was a single person push crew. I was the relief pilot monitoring com 1 and the ground inter phone. The push was good. The ground crew said to set our brakes and cleared to start. The Captain said cleared to disconnect headset. Brake was set and the First Officer started both engines. The Captain called for flaps 20 after start. The after start flow was ran. It took a bit longer than normal. Kind of felt like 5 minutes. We talked to Ground and were told to wait for traffic coming into the ramp area to park. We were then clear to taxi. Clear left, clear right. The Captain turned the taxi light on and released the brakes. As we started moving forward I hear stop stop stop. I repeated what I heard and told the Captain to stop. He immediately stopped the aircraft. We then heard the ground crew say that he was still connected. We were all surprised. The First Officer then turned the wheel cameras on. There he was. It had been what seemed a long time for the ground personnel to still be connected. The ground personnel disconnected the head set and got in the tug and drove to the left side of the aircraft. We taxied to the runway and took off.

Narrative: 2
We pushed off [the gate] and came to a stop. The Captain said "brake set, clear to disconnect." I was on radio the left radio communicating with and monitoring ATC, while the Captain was on the right with the push crew. He then turned to me and said, "start the left engine" followed by "start the right engine." After the engines were started, he looked in front and to the left of the aircraft (the direction of our gate and where the push crew should have been), gave a nod and said "flaps 20, after start checklist." After the flow and checklist were complete he said, "call for taxi." I called for and verified our clearance with the Captain. He said, "clear right?" I said, "clear right." He said, "clear left" turned the taxi
light on and began to roll forward. As we slowly rolled forward the International Relief Officer (IRO) said "stop, stop, stop the aircraft." He said he heard the tug driver saying "stop" as we began to roll forward. The Captain came to an immediate stop. He said he just messed up and it wasn't hard to tell it shook him up. The IRO definitely saved the day by monitoring both frequencies.

**Synopsis**

B777 First Officers reported a critical ground conflict after a miscommunication with the push crew. The pilots thought they were disconnected and clear to start the taxi however the ground personal on the headset was still connected to the aircraft. An immediate stop was performed with no injuries.
ACN: 1929042 (32 of 50)

**Time / Day**
Date: 202208

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

**Aircraft**
Reference: X
ATC / Advisory: Ramp: ZZZ
Aircraft Operator: Air Carrier
Make Model Name: B777 Undifferentiated or Other Model
Crew Size.Number Of Crew: 2
Operating Under FAR Part: Part 121
Flight Plan: IFR
Mission: Passenger
Flight Phase: Parked

**Component**
Aircraft Component: Brake 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
Qualification.Flight Crew: Instrument
Qualification.Flight Crew: Multiengine
Qualification.Flight Crew: Air Transport Pilot (ATP)
Experience.Flight Crew.Total: 13302
Experience.Flight Crew.Last 90 Days: 207
Experience.Flight Crew.Type: 459
ASRS Report Number.Accession Number: 1929042
Human Factors: Communication Breakdown
Human Factors: Situational Awareness
Human Factors: Workload
Human Factors: Distraction
Communication Breakdown.Party1: Flight Crew
Communication Breakdown.Party2: Ground Personnel

**Person: 2**
Location Of Person.Aircraft: X
Location In Aircraft: Flight Deck
Reporter Organization: Air Carrier
Function.Flight Crew: First Officer
Qualification.Flight Crew: Air Transport Pilot (ATP)
We arrived at the gate in ZZZ and not long after setting the parking brake and completing the parking checklist, got a Brakes Hot EICAS message with accompanying Electronic Checklist (ECL). My FO (First Officer) accomplished the checklist as a read and do. When he came to the item that called for the parking brake to be released, I looked out through the front windscreen to see if the Marshaller was still in position and had yet given the chocks inserted signal but he was already gone. I then instructed my FO to call Operations to see if they could determine if our chocks were in place to which they said yes. I then released the parking brake per the ECL and immediately noticed the aircraft moving slowly backwards. It appeared to move approximately 6 inches then stopped as it appeared to rest on the aft chock. We completed the Brakes Hot ECL. Shortly afterwards, a Maintenance Technician came in the cockpit visibly very aggravated asking us who said it was OK to release the parking brake? He went on to say the he was checking tire pressures when the aircraft started moving. Being on the B777 for a year now, it was then that I remembered the SOP from my previous fleet requiring one of us to go down and visually verify that all wheels were chocked before releasing the parking brake assuming that it applied to the B777 fleet as well. I was then very annoyed at myself for this error and very apologetic to our Maintenance Technician. It didn't seem to help much and I didn't blame him for being very annoyed. I could have severely injured or even killed him or someone else working near our wheels. Afterwards, my FO took the opportunity to look up the SOP which I referred to. He couldn't find it anywhere in a search of our FM or FOM. I eventually also searched for it or any guidance on releasing the parking brake at the gate.
due to hot brakes. To my surprise, I found nothing. One reference in the FOM says: "PARKING BRAKE - As soon as the aircraft comes to a stop at the final parking spot, set the parking brake. Never release the parking brake without direct contact with the marshaller (e.g., chocks-in hand signal or verbal notification). If hot brakes are suspected, see FM for hot brakes procedures." In referencing the B777 FM for hot brakes procedures, the only reference is with regard to a rejected take off. We could find no reference at all for hot brakes at the gate after taxi in. I make no excuses for the fact that my actions caused my aircraft to move without ground personnel in close proximity to it being made aware but in evaluating why it happened, it would appear that we actually have no specific guidance except for a hand signal or verbal notification that the chocks are in which we did receive from the Operations agent. In light of the fact that our Maintenance Technician and others could have been injured or worse though, that procedure is clearly insufficient. To my knowledge, the Operations Agent only verified through the cameras that chocks were in, as we asked her to do, and not that aircraft was sufficiently clear of personnel and equipment in order to safely release the parking brake. Even the SOP from my previous fleet only required that we verify visually that the chocks were in place but not to verify that the area was sufficiently clear or to notify any personnel working in close proximity to the aircraft that it may move a few inches, also insufficient. Without specific and effective guidance on releasing the parking brake after gate arrival for any reason, we disservice our crews and ground personnel and put them harms way. That applies to all fleets and would have been helpful to us in this situation. We had a thorough debrief and I'm confident that we won't make that error again.

Narrative: 2

I was PF (Pilot Flying) for a normal 30 flap landing on XXY in ZZZ. The approach was flown with flaps 30 and auto brakes 3 selected. The aircraft was slowed with idle reverse and the auto brakes remained engaged until below 80 kts. The aircraft was taxied off [Taxiway] ZXX to XX, ZZ, and Gate ZXX. As we approached our parking spot we got a BRAKE TEMP EICAS message. The Captain was focused outside on the automated parking system. I didn't want to distract him at that time, and I didn't think we could have a brake temp problem after a normal landing and short taxi in. We blocked in, and I ran the parking flow. At that time, I let the Captain know we had a BRAKE TEMP EICAS and non normal checklist. We ran the parking check and completed the BRAKE TEMP non-normal. I displayed the Gear schematic on the Captains MFD. The aft right inboard brake temp was an amber 5.2. All other brake temps were green. I read through the non-normal including the bullets associated with step 4 which states to observe brake cooling restrictions. Bullet three, step 4 states to "Coordinate with Maintenance and consider releasing parking brake to aid cooling. Ensure chocks are in place." As I read it, I thought the intent was to coordinate with Maintenance for the hot brakes issue and coordinate with the Ground Crew or Operations to release the parking brake. The Brake Temp Cooling Chart states for temps from 5.0 to 9.9-clear runway. Do not set parking brake. We discussed the need to release the parking brake and the fact that the Ground Marshallers were no longer in view. The Captain asked me to call Operations to confirm that the chocks were in place. Operations initially did not understand and responded with the block-in time when the system updated. I called a second time to clarify I needed to know if the wheel chocks were in place. The second response confirmed the wheels were chocked and the parking brake was then released. Shortly after brakes were released, I noticed the brake temp dropped to 5.1. I considered that the brakes had reached their max heating and would continue to cool back into the normal range. At that time, a Maintenance Technician came to the flight deck and asked why the brakes were released. He notified us that he had been checking the gear at the time of brake release and he was visibly and understandably upset because the aircraft moved slightly as it settled in the chocks. The Maintenance Technician was made aware of the gear schematic. The Maintenance Technician did not
seem concerned with the amber brake temp indication, and he responded that he needed to change a center brake on that gear anyway.

Synopsis
B777 flight crew reported they released their brakes while parked at the gate due to a hot brakes EICAS and the aircraft rolled several inches while a Maintenance Technician was servicing the landing gear.
Time / Day
Date: 202208
Local Time Of Day: 1201-1800

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

Environment
Flight Conditions: VMC

Aircraft
Reference: X
ATC / Advisory.Tower: ZZZ
Aircraft Operator: Air Carrier
Make Model Name: SA-227 AC Metro III
Crew Size.Number Of Crew: 2
Operating Under FAR Part: Part 121
Flight Plan: IFR
Mission: Cargo / Freight / Delivery
Flight Phase: Takeoff / Launch
Route In Use: Vectors

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

Person
Location Of Person.Aircraft: X
Location In Aircraft: Flight Deck
Reporter Organization: Air Carrier
Function.Flight Crew: Captain
Function.Flight Crew: Pilot Not Flying
Qualification.Flight Crew: Instrument
Qualification.Flight Crew: Air Transport Pilot (ATP)
Qualification.Flight Crew: Multiengine
ASRS Report Number.Accession Number: 1923961

Events
Anomaly.Aircraft Equipment Problem: Critical
Anomaly.Conflict: Airborne Conflict
Anomaly.Deviation / Discrepancy - Procedural: Clearance
Anomaly.Deviation / Discrepancy - Procedural: Published Material / Policy
Anomaly.Inflight Event / Encounter: Bird / Animal
Detector.Person: Flight Crew
Were Passengers Involved In Event: N
When Detected : In-flight
Result.General : Flight Cancelled / Delayed
Result.General : Maintenance Action
Result.Flight Crew : Rejected Takeoff
Result.Air Traffic Control : Provided Assistance
Result.Aircraft : Aircraft Damaged

Assessments
Contributing Factors / Situations : Aircraft
Primary Problem : Aircraft

Narrative: 1
During takeoff roll just prior to V1, [a] Crow flew in front of us and was ingested by the right engine. The engine lost power and the aircraft subsequently yawed to the right. Both pilots called abort. The first officer retarded the power levers and I took control to perform the aborted takeoff. As we turned off the runway, a vibration could be felt and right engine EGT was 640 degrees C at idle. I elected to shutdown the engine using normal procedures and taxi in on one engine. Upon visual inspection, blood was found in engine intake and several compressor blades had obvious damage. Airport operations found one wing and several feathers on the runway. We watched the bird being ingested by the engine and felt the subsequent power loss and yaw. Right engine ingested bird on takeoff roll. Abort takeoff and shutdown engine. Better wildlife management near airports.

Synopsis
Captain reported a bird was ingested by the right engine, resulting in engine damage and a rejected take off. The flight crew taxied back to the ramp and turned the aircraft over to Maintenance for repair.
**ACN: 1921902** (34 of 50)

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

**Place**
- Locale Reference.Airport: DFW.Airport
- State Reference: TX
- Altitude.MSL.Single Value: 5000

**Aircraft**
- Reference: X
- ATC / Advisory.TRACON: D10
- Aircraft Operator: Air Carrier
- Make Model Name: Large Transport, Low Wing, 2 Turbojet Eng
- Crew Size.Number Of Crew: 2
- Operating Under FAR Part: Part 121
- Flight Plan: IFR
- Mission: Passenger
- Flight Phase: Climb
- Route In Use.SID: AKUNA9
- Airspace.Class B: DFW

**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
- Qualification.Flight Crew: Air Transport Pilot (ATP)
- Qualification.Flight Crew: Instrument
- Qualification.Flight Crew: Multiengine
- ASRS Report Number.Accession Number: 1921902

**Person: 2**
- 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: 1921911

**Events**
Anomaly.Aircraft Equipment Problem : Critical
Anomaly.Deviation / Discrepancy - Procedural : Clearance
Anomaly.Deviation / Discrepancy - Procedural : Published Material / Policy
Anomaly.Inflight Event / Encounter : Bird / Animal
Detector.Person : Flight Crew
When Detected : In-flight
Result.General : Maintenance Action
Result.Flight Crew : Landed in Emergency Condition
Result.Flight Crew : Returned To Departure Airport
Result.Aircraft : Aircraft Damaged

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

Narrative: 1
During departure on the AKUNA 9 SID passing JGIRL at approx 5,000 feet struck a large bird in the #1 engine. Terminated the SID declared priority handling and recovered to a visual straight in to 17R. There was a smell of roasted bird in the cockpit and cabin. Engine had some vibration but operating normally in idle during decent and approach. All engine indications remained in the green and stable. Recovered uneventfully. Stopped on Runway 17R fire department checked for external damage and none was apparent so we taxied back to the gate.

Narrative: 2
Bird strike on departure from DFW, QRH procedures followed and declared [priority handling] for return to DFW.

Synopsis
Air Carrier Flight Crew reported a bird strike on departure which resulted in engine damage and a return to departure airport.
**ACN: 1921604 (35 of 50)**

**Time / Day**
- Date: 202207
- Local Time Of Day: 1201-1800

**Place**
- Locale Reference.Airport: DYL.Airport
- State Reference: PA
- Altitude.AGL.Single Value: 0

**Environment**
- Flight Conditions: VMC
- Weather Elements / Visibility: Visibility: 10
- Light: Daylight
- Ceiling: Single Value: 5000

**Aircraft**
- Reference: X
- ATC / Advisory: CTAF: DYL
- Aircraft Operator: Personal
- Make Model Name: Small Aircraft, High Wing, 1 Eng, Fixed Gear
- Crew Size: Number Of Crew: 2
- Operating Under FAR Part: Part 91
- Flight Plan: None
- Mission: Training
- Flight Phase: Landing
- Route In Use: Visual Approach
- Airspace.Class G: DYL

**Person**
- Location Of Person.Aircraft: X
- Location In Aircraft: Flight Deck
- Reporter Organization: Personal
- Function.Flight Crew: Instructor
- Function.Flight Crew: Pilot Not Flying
- Qualification.Flight Crew: Flight Instructor
- Qualification.Flight Crew: Instrument
- Qualification.Flight Crew: Multiengine
- Qualification.Flight Crew: Commercial
- Experience.Flight Crew.Total: 1050
- Experience.Flight Crew.Last 90 Days: 200
- ASRS Report Number: Accession Number: 1921604
- Human Factors: Confusion

**Events**
- Anomaly.Conflict: Ground Conflict, Critical
- Anomaly.Deviation / Discrepancy - Procedural: Published Material / Policy
- Anomaly.Deviation / Discrepancy - Procedural: FAR
- Anomaly.Ground Event / Encounter: Person / Animal / Bird
- Detector.Person: Flight Crew
When Detected : Taxi
Result.Flight Crew : Took Evasive Action

Assessments
Contributing Factors / Situations : Airport
Primary Problem : Airport

**Narrative: 1**

Runway Incursion: At XA:27 LCL, my student and I were in Aircraft X on final approach to Runway 23 at DYL. We noted a maintenance guy working on the left side of the runway further downfield near Taxiway C. The worker was well outside of the runway safety area so my student and I continued the approach. Upon landing and on the rollout, the subject entered the runway and walked slowly across, forcing us to use max braking action to prevent colliding with him, as a go around was no longer a safe option due to minimal speed and obstacles to clear on departure. A weather briefing was gathered. NOTAMs were also checked via our EFB and there was no mention of workers possibly being on the runway or near the runway safety environment.

**Synopsis**

Flight Instructor reported the need for evasive action during landing to avoid a maintenance worker on the runway.
**ACN: 1919171** (36 of 50)

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

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

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

**Aircraft**
- Reference: X
- ATC / Advisory: Tower: ZZZ
- Aircraft Operator: Air Carrier
- Make Model Name: Regional Jet 200 ER/LR (CRJ200)
- Crew Size: Number Of Crew: 2
- Operating Under FAR Part: Part 121
- Flight Plan: IFR
- Mission: Passenger
- Flight Phase: Final Approach
- Route In Use: Visual Approach
- Airspace.Class D: ZZZ

**Person**
- 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: Instrument
- Qualification: Flight Crew: Multiengine
- Qualification: Flight Crew: Air Transport Pilot (ATP)
- ASRS Report Number: Accession Number: 1919171
- Human Factors: Confusion
- Human Factors: Distraction
- Human Factors: Human-Machine Interface
- Human Factors: Situational Awareness
- Human Factors: Workload

**Events**
- Anomaly.Deviation - Altitude: Overshoot
- Anomaly.Deviation / Discrepancy - Procedural: Published Material / Policy
- Anomaly.Ground Event / Encounter: Person / Animal / Bird
- Anomaly.Inflight Event / Encounter: CFTT / CFIT
- Detector.Automation: Aircraft Terrain Warning
- Detector.Person: Flight Crew
- When Detected: In-flight
Result: General : Flight Cancelled / Delayed
Result: Flight Crew : Executed Go Around / Missed Approach
Result: Flight Crew : Overrode Automation
Result: Flight Crew : Became Reoriented

Assessments

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

Narrative: 1

After getting a canceled approach clearance due to birds on the runway we executed a non-standard go around procedure and entered the traffic pattern as directed by ATC. Once re-cleared for the approach we turned base and started a descent. During this time a momentary "OBSTACLE" aural was heard and corrected immediately by overriding automation. The rest of the approach and landing continued normally and we debriefed the event. Non standard go around and approach procedure on unfamiliar area. High workload environment. Stay higher on visual approaches to unfamiliar airports.

Synopsis

Air Carrier Captain reported they received a momentary "obstacle" warning which they overcame by overriding the automation.
ACN: 1908806 (37 of 50)

Time / Day
Date: 202206
Local Time Of Day: 1801-2400

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

Environment
Flight Conditions: VMC
Weather Elements / Visibility.Visibility: 20
Light: Dusk
Ceiling.Single Value: 25000

Aircraft
Reference: X
ATC / Advisory.UNICOM: ZZZ
Aircraft Operator: Personal
Make Model Name: Small Aircraft, Low Wing, 2 Eng, Retractable Gear
Crew Size.Number Of Crew: 1
Operating Under FAR Part: Part 91
Flight Plan: None
Mission: Personal
Flight Phase: Landing
Route In Use: Visual Approach
Airspace.Class G: ZZZ

Person
Location Of Person.Aircraft: X
Location In Aircraft: Flight Deck
Reporter Organization: Personal
Function.Flight Crew: Single Pilot
Qualification.Flight Crew: Commercial
Qualification.Flight Crew: Instrument
Qualification.Flight Crew: Multiengine
Experience.Air Traffic Control.Supervisory: 4111
Experience.Flight Crew.Total: 802
Experience.Flight Crew.Last 90 Days: 10
Experience.Flight Crew.Type: 54
ASRS Report Number.Accession Number: 1908806

Events
Anomaly.Conflict: Ground Conflict, Critical
Anomaly.Ground Event / Encounter: Person / Animal / Bird
Detector.Person: Flight Crew
Were Passengers Involved In Event: N
When Detected.Other
Result. General : Maintenance Action
Result. Aircraft : Aircraft Damaged

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

Narrative: 1
On landing directly after touchdown a deer ran onto the runway directly at my airplane and struck the plane, and went under the wing and the main gear ran over him. There was very little damage but my mechanic is checking it, lots of blood and deer parts.

Synopsis
Twin Engine Pilot reported while landing at a non-towered airport a deer darted onto the runway. The deer hit the aircraft and passed under the gear and aircraft. The deer did not survive and the aircraft underwent maintenance inspection.
**ACN: 1906479 (38 of 50)**

**Time / Day**
- Date: 202206
- Local Time Of Day: 0601-1200

**Place**
- Locale Reference
- ATC Facility: MIA.Tower
- State Reference: FL

**Aircraft : 1**
- Reference: X
- ATC / Advisory: Tower: ZZZ
- Aircraft Operator: Air Carrier
- Make Model Name: Commercial Fixed Wing
- Crew Size: Number Of Crew: 2
- Operating Under FAR Part: Part 121
- Flight Plan: IFR
- Mission: Passenger
- Nav In Use: GPS
- Nav In Use: FMS Or FMC
- Flight Phase: Final Approach
- Airspace: Class B: ZZZ

**Aircraft : 2**
- Reference: Y
- Aircraft Operator: Other
- Make Model Name: No Aircraft

**Person**
- Location Of Person: Aircraft: X
- Location In Aircraft: Flight Deck
- Reporter Organization: Air Carrier
- Function: Flight Crew: Captain
- Qualification: Flight Crew: Instrument
- Qualification: Flight Crew: Multiengine
- Qualification: Flight Crew: Air Transport Pilot (ATP)
- ASRS Report Number: Accession Number: 1906479
- Human Factors: Distraction
- Human Factors: Situational Awareness
- Human Factors: Time Pressure
- Human Factors: Workload

**Events**
- Anomaly: Conflict: Ground Conflict, Critical
- Anomaly: Ground Event / Encounter: Person / Animal / Bird
- Anomaly: Ground Event / Encounter: Vehicle
- Detector: Automation: Air Traffic Control
- Detector: Person: Air Traffic Control
- Were Passengers Involved In Event: N
- When Detected: In-flight
Result: Flight Crew: Took Evasive Action
Result: Flight Crew: Executed Go Around / Missed Approach
Result: Air Traffic Control: Issued New Clearance

**Assessments**

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

**Narrative: 1**

During the approach to Runway 09 of MIA, the Tower informs us about the presence of animals on it and the entry of vehicles to remove them. He instructs us to escape and then make a new approach to Runway 08L.

**Synopsis**

Captain reported animals and an airport vehicle on the intended landing runway. ATC directed a missed approach to a different runway.
ACN: 1900801 (39 of 50)

Time / Day
Date: 202205
Local Time Of Day: 0601-1200

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

Aircraft
Reference: X
ATC / Advisory.CTAF: ZZZ
Aircraft Operator: Personal
Make Model Name: Twin Otter DHC-6
Crew Size.Number Of Crew: 1
Operating Under FAR Part: Part 91
Flight Plan: None
Mission: Passenger
Flight Phase: Takeoff / Launch
Route In Use: None

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: Flight Instructor
Qualification.Flight Crew: Instrument
Qualification.Flight Crew: Multiengine
Qualification.Flight Crew: Commercial
Experience.Flight Crew.Total: 1620
Experience.Flight Crew.Last 90 Days: 36
Experience.Flight Crew.Type: 36
ASRS Report Number.Accession Number: 1900801
Human Factors: Distraction

Events
Anomaly.Ground Excursion: Runway
Anomaly.Ground Event / Encounter: Person / Animal / Bird
Anomaly.Ground Event / Encounter: Loss Of Aircraft Control
Detector.Person: Flight Crew
When Detected: In-flight
Result.Flight Crew: Took Evasive Action

Assessments
Contributing Factors / Situations: Environment - Non Weather Related
Primary Problem: Environment - Non Weather Related
Narrative: 1

While conducting skydiving operations second load of the day, during takeoff run pilot visualized wild turkey crossing runway, pilot decided to reject takeoff, that caused the aircraft to initially veer left, pilot applied right rudder to center while adding brake, the aircraft reduced speed to where rudder was not effective anymore and ended up coming to a stop on the grass adjacent to the runway, there were 16 jumpers onboard at the time, no one was hurt, the aircraft was flown to a shop for inspection and no damage to the aircraft was found.

Synopsis

Skydive Pilot reported rejecting a takeoff due to an animal crossing the runway resulting in a runway excursion.
ACN: 1897871

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

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

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

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
ASRS Report Number.Accession Number: 1897871

Events
Anomaly.Conflict: Ground Conflict, Critical
Anomaly.Deviation / Discrepancy - Procedural: Published Material / Policy
Anomaly.Deviation / Discrepancy - Procedural: FAR
Anomaly.Ground Event / Encounter: Person / Animal / Bird
Detector.Person: Flight Crew
When Detected: In-flight
Result.Flight Crew: Took Evasive Action

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

Narrative: 1
On the landing rollout in ZZZ, landing Runway XX, I saw a family of geese come out of the grass between the runway and taxiway. We were in the process of slowing to exit the Runway. The geese were initially moving from west to east across the runway but then turned north as they saw the airplane coming. I maneuvered the aircraft nose wheel
slightly to the right of centerline to not hit the geese with the nose gear and I saw the geese go by down the left side of the airplane. They were all still on the ground at that time. I never saw them attempting to fly. I would estimate our speed as being around 50 kts. as we passed the geese and slowing. I notified Tower of the geese on the runway and that we might have struck them. We turned off the runway and turned south on [taxiway] to the gate. On the way past I could see at least 2 geese still on the runway just south of [taxiway]. We taxied to the gate. I did a thorough post flight inspection of the aircraft. I could not identify where on the aircraft we struck the geese. I notified Maintenance and Maintenance Personnel came and checked the aircraft as well and could not find signs of the bird strike. Airport Operations came to the aircraft and I spoke with them. They informed me that there were 4 geese found deceased on the Runway X full grown and 2 babies. One of the operations personnel was surprised by the lack of blood on the geese. I informed ZZZ Ground that we had observed no damage on the aircraft.

Synopsis
Flight Crew reported a family of Canadian Geese on the runway during landing rollout.
ACN: 1897807 (41 of 50)

Time / Day
Date: 202205
Local Time Of Day: 0601-1200

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

Environment
Flight Conditions: VMC

Aircraft
Reference: X
Aircraft Operator: Air Carrier
Make Model Name: B737 Next Generation Undifferentiated
Crew Size.Number Of Crew: 2
Operating Under FAR Part: Part 121
Mission: Passenger
Flight Phase: Takeoff / Launch

Component
Aircraft Component: Angle of Attack Vane
Aircraft Reference: X
Problem: Failed

Person
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: Instrument
Qualification.Flight Crew: Multiengine
Experience.Flight Crew.Total: 13198
Experience.Flight Crew.Last 90 Days: 128
Experience.Flight Crew.Type: 13198
ASRS Report Number.Accession Number: 1897807

Events
Anomaly.Aircraft Equipment Problem: Critical
Anomaly.Deviation / Discrepancy - Procedural: Published Material / Policy
Anomaly.Deviation / Discrepancy - Procedural: Clearance
Anomaly.Inflight Event / Encounter: Bird / Animal
Detector.Person: Flight Crew
When Detected: In-flight
Result.Flight Crew: Returned To Departure Airport
Result. Flight Crew: Diverted
Result. Aircraft: Aircraft Damaged

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

Narrative: 1
As I rotated two geese hit the right nose of the aircraft. The AOA (Angle of Attack) [vane] sheared off causing erroneous airspeed and altitude info. We switched controls and Captain uneventfully landed over weight.

Synopsis
B737 Flight Crew reported a bird strike right after takeoff, resulting in an angle of attack vane to shear off.
ACN: 1897774  (42 of 50)

**Time / Day**

Date : 202205

**Place**

Locale Reference:ATC Facility : EWR.Tower
State Reference : NJ
Altitude.AGL.Single Value : 20

**Environment**

Flight Conditions : VMC

**Aircraft**

Reference : X
ATC / Advisory:Tower : EWR
Aircraft Operator : Air Carrier
Make Model Name : Medium Large Transport, Low Wing, 2 Turbojet Eng
Crew Size.Number Of Crew : 2
Operating Under FAR Part : Part 121
Flight Plan : IFR
Mission : Passenger
Nav In Use : FMS Or FMC
Nav In Use : GPS
Flight Phase : Takeoff / Launch
Route In Use : Direct
Airspace.Class B : EWR

**Component**

Aircraft Component : Pitot-Static System
Aircraft Reference : X
Problem : Failed

**Person**

Location Of Person.Aircraft : X
Location In Aircraft : Flight Deck
Reporter Organization : Air Carrier
Function.Flight Crew : Pilot Not Flying
Function.Flight Crew : Captain
Qualification.Flight Crew : Air Transport Pilot (ATP)
Qualification.Flight Crew : Multiengine
Qualification.Flight Crew : Instrument
Experience.Flight Crew.Total : 9720
Experience.Flight Crew.Last 90 Days : 170
Experience.Flight Crew.Type : 9720
ASRS Report Number.Accession Number : 1897774
Human Factors : Situational Awareness
Human Factors : Time Pressure
Human Factors : Troubleshooting
Human Factors : Workload
Events
Anomaly.Aircraft Equipment Problem : Critical
Anomaly.Inflight Event / Encounter : Bird / Animal
Detector.Automation : Aircraft Other Automation
Detector.Person : Flight Crew
Were Passengers Involved In Event : N
When Detected : In-flight
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
Result.Aircraft : Aircraft Damaged

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

Narrative: 1
On takeoff, hit a goose at about 20 ft. First Officers pitot static system failed, causing erroneous indications. I then took over flying the aircraft, we [requested priority handling] and returned to Newark airport for an overweight landing.

Synopsis
Air Carrier Captain reported a Canadian Goose bird strike after takeoff. The collision caused the First Officer’s static system to fail. The Captain ask for and was given priority handling to return to the airport.
ACN: 1894694 (43 of 50)

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

Place
Locale Reference. ATC Facility: ZZZ.TRACON
State Reference: US
Altitude.AGL.Single Value: 200

Environment
Flight Conditions: VMC
Weather Elements / Visibility. Visibility: 10
Light: Daylight
Ceiling. Single Value: 25000

Aircraft
Reference: X
ATC / Advisory. TRACON: ZZZ
Aircraft Operator: Personal
Make Model Name: PA-28 Cherokee/Archer/Dakota/Pillan/Warrior
Crew Size. Number Of Crew: 1
Operating Under FAR Part: Part 91
Flight Plan: IFR
Mission: Personal
Flight Phase: Initial Climb
Route In Use: Visual Approach
Airspace. Class E: ZZZ

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

Person
Location Of Person. Aircraft: X
Location In Aircraft: Flight Deck
Reporter Organization: Personal
Function. Flight Crew: Instructor
Qualification. Flight Crew: Glider
Qualification. Flight Crew: Instrument
Qualification. Flight Crew: Commercial
Qualification. Flight Crew: Flight Instructor
Experience. Flight Crew. Total: 5000
Experience. Flight Crew. Last 90 Days: 10
Experience. Flight Crew. Type: 1500
ASRS Report Number. Accession Number: 1894694

Events
Narrative: 1

The flight was planned as a short preparation flight for a cross country the next day. Essentially a few practice approaches and back down again. Bird nesting season is in full bloom and I completed a thorough (or so I thought) preflight removing the new full-cowl cover and nose plugs for keeping birds out. I proceeded with normal start, taxi and run-up procedures and then entered my flight plan into the Garmin 430. Executed a normal takeoff. At about 50-100 ft. altitude the Cockpit began to fill with smoke. It was too late to abort the takeoff so I opted for an immediate landing asking the aircraft ahead of me to extend his downwind so that I could make a very shortened pattern. I lowered the gear handle and opened the pilot’s vent window which helped clear my watering eyes. My approach was high and I slipped to slow the aircraft and keep the smoke away from the left side. At about 50 ft. I stopped the slip and lowered full flaps. I began a normal flare and at this point the prop and flaps absorbed the landing. The aircraft came to a stop. I performed shutdown procedures and egress with my [dog] who was on his first demo flight. As I reached to turn off the master switch I noted that the gear safe lights were all out and the auto gear extension was in the proper position for an auto extension that did not happen. Better a gear up landing than a crash due to smoke inhalation.

Synopsis

PA28R Pilot reported engine compartment fire and gear up landing.
ACN: 1893297 (44 of 50)

Time / Day
Date: 202204
Local Time Of Day: 1801-2400

Place
Locale Reference.ATC Facility: ZZZ.TRACON
State Reference: US
Altitude.MSL.Single Value: 5500

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

Component
Aircraft Component: Fuselage Nose Cone
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
Qualification.Flight Crew: Multiengine
Qualification.Flight Crew: Air Transport Pilot (ATP)
Qualification.Flight Crew: Instrument
ASRS Report Number.Accession Number: 1893297
Human Factors: Workload
Human Factors: Troubleshooting

Person: 2
Location Of Person.Aircraft: X
Location In Aircraft: Flight Deck
Reporter Organization: Air Carrier
Function.Flight Crew: First Officer
Function.Flight Crew: Pilot Not Flying
Qualification.Flight Crew: Instrument
Qualification.Flight Crew: Multiengine
Qualification.Flight Crew: Air Transport Pilot (ATP)
Experience.Flight Crew.Last 90 Days: 150
Experience.Flight Crew.Type: 1763
**ASRS Report Number. Accession Number**: 1892934

**Human Factors**: Troubleshooting

**Human Factors**: Workload

**Events**

- **Anomaly. Aircraft Equipment Problem**: Critical
- **Anomaly. Inflight Event / Encounter**: Bird / Animal
- **Detector. Automation**: Aircraft Other Automation
- **Detector. Person**: Flight Crew
- **When Detected**: In-flight
- **Result. General**: Flight Cancelled / Delayed
- **Result. Flight Crew**: Returned To Departure Airport
- **Result. Aircraft**: Aircraft Damaged

**Assessments**

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

**Narrative: 1**

Passing approximately 5,500 feet on ZZZZZ4 out of ZZZ, we saw two very large flashes resulting in a bird strike which was immediately followed by an IAS DISAGREE indication. The First Officer's airspeed indicator displayed 12 to 13 knots below Captain's and standby airspeed indicator. We asked for a level off at 10,000 feet MSL and accomplished the IAS DISAGREE checklist and memory items. We also heard more-than-normal air noise. The decision was made to return to ZZZ for an overweight landing (GW XXX.0). Flight Attendants, Passengers, Dispatch and ZZZ Operations notified. There was adequate margin between calculated approach and placard speed for a flaps 40 approach. We informed Tower of our intent to use the full length of Runway XX. Full reverse thrust and manual braking was used at 55 knots.

**Narrative: 2**

After takeoff around 5,000 feet two big birds hit the aircraft on the nose cone. We immediately got IAS disagree and some added wind noise. We asked ATC to level at 10,000 feet and stay in the area while we ran checklists. We ran the IAS Disagree QRH and it lead us to airspeed unreliable QRH. At the completion of the checklist, we decided the best course of action would be to return to ZZZ as we could not clear the IAS disagree and we were concerned with damage to the nose cone. We informed ATC, Dispatch, the Flight Attendants, and the Passengers. We returned to ZZZ without incident and taxied to Gate XXX.

**Synopsis**

B737 Flight Crew reported two large birds hit the nose cone during departure, resulting in an airspeed disagree message. The Flight Crew completed an air turn back to landing.
**ACN: 1892714** (45 of 50)

**Time / Day**
- Date: 02202
- Local Time Of Day: 1801-2400

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

**Environment**
- Light: Night

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

**Component**
- Aircraft Component: Flap Control (Trailing & Leading Edge)
- Aircraft Reference: X
- Problem: Failed

**Person**
- Location Of Person: Aircraft: X
- Location In Aircraft: General Seating Area
- Cabin Activity: Safety Related Duties
- Reporter Organization: Air Carrier
- Qualification: Flight Attendant: Current
- ASRS Report Number: Accession Number: 1892714
- Human Factors: Workload
- Human Factors: Troubleshooting

**Events**
- Anomaly.Aircraft Equipment Problem: Critical
- Anomaly.Deviation / Discrepancy - Procedural: Clearance
- Anomaly.Deviation / Discrepancy - Procedural: Published Material / Policy
- Anomaly.Inflight Event / Encounter: Bird / Animal
- Detector.Person: Flight Crew
- Detector.Person: Flight Attendant
- When Detected: In-flight
- Result.General: Maintenance Action
- Result.Flight Crew: Executed Go Around / Missed Approach
Result. Flight Crew : Overcame Equipment Problem
Result. Flight Crew : Requested ATC Assistance / Clarification
Result. Flight Crew : Returned To Clearance
Result. Air Traffic Control : Provided Assistance

Assessments

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

Narrative: 1

Bird strike caused fail wing slat on descent. So we had to go around so pilots could resolve a solution etc.. All went well and we landed safely. No emergency evacuation.

Synopsis

Air Carrier Flight Attendant reported a bird strike during landing. Flight crew executed a missed approach and returned for a safe landing.
ACN: 1892471 (46 of 50)

**Time / Day**
- Date: 202204
- Local Time Of Day: 1801-2400

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

**Environment**
- Flight Conditions: VMC
- Weather Elements / Visibility: Icing
- Weather Elements / Visibility: Turbulence
- Light: Night

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

**Component**
- Aircraft Component: Leading Edge Slat
- Aircraft Reference: X
- Problem: Malfunctioning

**Person : 1**
- Location Of Person:Aircraft: X
- Location In Aircraft: Flight Deck
- Reporter Organization: Air Carrier
- Function.Flight Crew: Pilot Flying
- Function.Flight Crew: Captain
- Qualification.Flight Crew: Air Transport Pilot (ATP)
- Qualification.Flight Crew: Instrument
- Qualification.Flight Crew: Multiengine
- ASRS Report Number. Accession Number: 1892471
- Human Factors : Troubleshooting

**Person : 2**
- Location Of Person:Aircraft: X
- Location In Aircraft: Flight Deck
- Reporter Organization: Air Carrier
- Function.Flight Crew: First Officer
- Qualification.Flight Crew: Air Transport Pilot (ATP)
On the ILS XXL approach into ZZZ, I was Pilot Flying and my First Officer was Pilot Monitoring. At approx 2,500 feet in descent we received an EICAS (engine indicating and crew alerting system) Slat Fail. The First Officer also mentioned he had a loud pop. I elected to discontinue the approach and perform a go around. Once leveled off, I transferred flight controls to the PM (FO) and ran the Slat Fail QRH (quick reference handbook). ZZZ gave us delays vectors while running the QRH. There seemed to be confusion between us and ATC. I think they thought we had a flight control malfunction despite stating we had a slat malfunction. They then [assigned priority handling] on their behalf and we gave SOB and FOB. The slats were stuck at 1 but flaps were able to be extended to 5 for landing. After running the QRH, I took back the flight controls to perform the landing. After landing we exited the runway and had the ARFF (airport rescue and firefighting) trucks perform an inspection on the right wing to verify there wasn't any damage to the wing that would prevent taxi back to the gate.

While on approach (about 4 miles outside of the final approach fix) First Officer heard a loud thud favoring the right side of the aircraft, seconds later an EICAS (engine indicating and crew alerting system) message (Slat Fail) appeared. Crew initiated a soft go around to run QRH (quick reference handbook). Following QRH procedure, we returned to field for a Slat 3, Flaps 5 landing. This configuration raised the stall speed and led to a harder than normal landing (as expected). Upon vacating the runway environment priority vehicles searched the aircraft for damage (they were notified that we heard a banging noise on the right side of the aircraft). We were told that no damage was suspected. Upon our arrival at the gate (we left the aircraft in a landing configuration) ramp personnel brought it to our attention that we hit a bird.
Synopsis

EMB ERJ Flight Crew reported a leading edge slat failure on approach after a bird strike. The flight crew elected to perform a go around and returned to land at destination airport.
Time / Day
Date: 202204
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: Corporate
Make Model Name: Gulfstream G280
Crew Size.Number Of Crew: 2
Operating Under FAR Part: Part 91
Flight Plan: IFR
Mission: Test Flight / Demonstration
Flight Phase: Taxi

Component
Aircraft Component: Pitot-Static System
Aircraft Reference: X
Problem: Malfunctioning

Person
Location Of Person.Aircraft: X
Location In Aircraft: Flight Deck
Reporter Organization: Corporate
Function.Flight Crew: Captain
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: 1889558
Human Factors: Troubleshooting

Events
Anomaly.Aircraft Equipment Problem: Critical
Anomaly.Deviation / Discrepancy - Procedural: FAR
Anomaly.Deviation / Discrepancy - Procedural: Clearance
Anomaly.Deviation / Discrepancy - Procedural: Published Material / Policy
Anomaly.Ground Event / Encounter: Person / Animal / Bird
Anomaly.Ground Event / Encounter: FOD
Detector.Automation: Aircraft Other Automation
Part 91 maintenance flight of new aircraft being conducted without passengers in conjunction with approach currency for the pilot flying, PIC (Pilot in Command). I was the pilot monitoring, SIC (Second in Command). Planned flight from ZZZ1 to ZZZ with the intent of flying 3 practice approaches at ZZZ and return to ZZZ1 for one final approach. Both pilots conducted a complete preflight walkaround inspection of the aircraft and noted nothing abnormal. Departure, climb, and cruise to ZZZ were uneventful.

After an uneventful approach and landing at ZZZ, we were presented with an amber “RUD Fail Safe Value” CAS. The PIC called for the checklist as we cleared the runway and began taxiing back for departure on Runway XX. I requested from Ground Control to hold short of the runway while running the checklist, while the PIC contacted Company Tech Operations for troubleshooting. Of note is that the aircraft was ineligible for MEL relief. The PIC, in coordination with Tech Operations, elected to shut down both engines and APU, powering down the aircraft entirely to reset. We obtained permission to do this in our present position from ATC. Upon fully powering up the aircraft, the CAS message was no longer displayed and there were no indications of any anomalies. We therefore elected to attempt a takeoff and briefed that we would abort the takeoff for a reoccurrence of the CAS message up to 100 kt. given the runway length available. On the takeoff roll, the same CAS message reappeared at approximately 40 - 50 kt. IAS and the abort was called and initiated. I informed the Control Tower that we were aborting and we were instructed to turn right onto Runway XY and right on Taxiway XX, and to contact Ground Control. I requested from Ground Control a taxi to a position on the airport where we could troubleshoot our issue, including a complete cycling down of the aircraft. We were authorized to do so at our present position on Taxiway XX. We waited 5 - 6 minutes between powering down and powering up the aircraft this time. Again, upon power up, the CAS message had cleared and the PIC, who was again in contact with Company Tech Operations, elected to attempt another takeoff with the hope of returning to ZZZ1, given there were no abnormal indications. I concurred with this decision and we debriefed that we would abort up to 100 kt. for that particular CAS message. We obtained taxi clearance back to Runway XX where we initiated another takeoff, were presented with the same CAS under the same circumstances again, and aborted as previously. I advised the Tower that we were aborting the takeoff on the runway and responded to their inquiry that we did not need assistance. A quick crew discussion regarding the fact that we were now AOG (Aircraft on Ground) and needed to park at an FBO ensued and we elected to park at the FBO. While taxiing in, Ground Control requested the reason for the two aborted takeoffs. I informed them it was an airspeed indicating problem that would require maintenance, but
asked them not to cancel our flight plan. While parked at the FBO, the PIC interfaced with Tech Operations regarding the issue while on APU power and engines shut down. I overheard them stating that a probable cause was FOD in the standby instrument pitot probe, since we had determined that the airspeed discrepancy was in the standby instrument, #3 source. I immediately exited the aircraft and checked the probe, finding a large bumble bee hanging half out of the probe, fully obstructing it. After discussion with the PIC and Tech Operations, we carefully removed all of the bee that we could, seemingly clearing the obstruction. All involved agreed to attempt the takeoff one more time with the cleared obstruction. As our flight plan to ZZZ1 was still active, we taxied out to Runway XY, briefed as previously, and were able to conduct a normal takeoff without abnormal indications. The flight to ZZZ1 and subsequent approaches and landings were all uneventful. We advised Corporate Maintenance on engine shutdown to ensure the pitot tube was completely cleaned out before the next flight. All pitot probes were inspected on initial preflight walkaround by both pilots and verified to be clear. The gear pins were removed by the pilots but all other pitot/static/AOA covers, etc., were removed prior to our arrival to the aircraft. It appears that the bee blocked the standby pitot probe at some point on approach, landing or before exiting the runway after landing. The flight crew followed all checklists and were able to solve the issue of the FOD blocked probe with the assistance of Tech Operations. These types of incidents are practically impossible to avoid. Therefore, no suggestions are presented here that could have avoided the situation and resulting operational complications.

Synopsis

G280 First Officer reported multiple rejected takeoffs while attempting a maintenance check flight. The Flight Crew taxied to an FBO for parking and discovered a large bumble bee obstructing the pitot tube.
ACN: 1883849 (48 of 50)

**Time / Day**

- Date: 202203
- Local Time Of Day: 1201-1800

**Place**

- Locale Reference Airport: ZZZ.Airport
- State Reference: US
- Relative Position Distance Nautical Miles: 9.4
- Altitude AGL Single Value: 400

**Environment**

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

**Aircraft**

- Reference: X
- Aircraft Operator: Commercial Operator (UAS)
- Make Model Name: DJI Phantom 4 Pro
- Crew Size Number Of Crew: 2
- Operating Under FAR Part: Part 107
- Flight Plan: None
- Mission: Utility / Infrastructure
- Flight Phase: Cruise
- Route In Use: None
- Airspace Authorization Provider (UAS): Authorized Third Party
- Operating Under Waivers / Exemptions / Authorizations (UAS): N
- Airworthiness Certification (UAS): Standard
- Weight Category (UAS): Small
- Configuration (UAS): Multi-Rotor
- Flight Operated As (UAS): VLOS
- Flight Operated with Visual Observer (UAS): Y
- Control Mode (UAS): Autonomous / Fully Automated
- Flying In Near Over (UAS): Open Space / Field
- Type (UAS): Purchased
- Number of UAS Being Controlled (UAS).Number of UAS: 1

**Person**

- Location Of Person: Outdoor / Field Station (UAS)
- Reporter Organization: Commercial Operator (UAS)
- Function Flight Crew: Remote PIC (UAS)
- Qualification Flight Crew: Remote Pilot (UAS)
- Qualification Flight Crew: Private
- Experience Flight Crew Total (UAS): 275
- Experience Flight Crew Last 90 Days (UAS): 47
- Experience Flight Crew Type (UAS): 50
- ASRS Report Number Accession Number: 1883849
Events
Anomaly: Inflight Event / Encounter: Bird / Animal
Detector: Person: UAS Crew
When Detected: In-flight
Result: Aircraft: Aircraft Damaged

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

Narrative: 1
We were conducting a normal UAS scan at the Location. We had a crew of two for this operation. I was acting as RPIC and maintained visual contact with the UAS during this operation. I had my operator who's job was to manipulate controls for the operation and monitor the data that was coming back from the UAS. Before the operation we went through our pre-flight checks on our checklists, ensure that the drone was fully operational and check the flight automated software. We check the weather, winds were from the east, clear skies, and 10 SM visibility. We both went through the IMSAFE checklists and determined we were safe to conduct the UAS operation at the site. We attached an additional anti-collision strobe light that we use to help us keep track of the drone and assists in making the UAS more visible. When we first started the operation we didn't have many birds in the area, we had a group of crows to the south of the site but it wasn't a factor to the operation. We had successfully brought the UAS back to the Takeoff/Landing area to swap batteries in it. About 40 minutes into the operation and with the 90 percent of the scan complete a flock of thousands of seagulls started moving toward the flight path of the UAS. It seemed that most of the seagulls flew away from the UAS and were going to fly at a higher altitude than the UAS. We started calling the UAS back to the Landing/Takeoff area and getting away from the column of birds. About 30 seconds of the birds moving into the area, a seagull made the decision that it wanted to attack the UAS. So the UAS was attacked and in the process the propellers were broken and the bird was wounded. I watched as this all happened so quickly, and watched as both the UAS and the bird fell 400 feet to [the] ground. We noted where the last location of the UAS and cleaned up the staging area. After arriving to the last location of the UAS we could see that it had fell hard and hit some rocks. All four propellers were broken, the camera had been broken off the frame of the UAS and the battery had ejected itself about 25 feet from the drone.
The seagull was dead and the UAS was broken beyond repair. We took photos of the site and the UAS before we picked up the pieces. We notified the site managers of what had happened and we would be back in a few days to attempt another scan with another UAS. We were able to go back and accomplish our goal of finishing the scan for the client. I was able to meet two workers at the site who uses falcons, hawks and RC planes to keep the seagulls out of the Location. I will be coordinating with them next time before I arrive on site so they can move the seagulls at of the area. Hope you are able to learn from this experience as we did.

Callback: 1
The reported had no additional information to share.

Synopsis
UAS Pilot reported that while conducting a mission with the assistance of a visual observer a flock of birds flew towards the UAS and one struck the UAS causing a crash.
**ACN: 1872912 (49 of 50)**

### Time / Day

- **Date**: 202201
- **Local Time Of Day**: 1201-1800

### Place

- **Locale Reference.** Airport: ZZZ.Airport
- **State Reference**: US
- **Altitude.AGL.Single Value**: 400

### Environment

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

### Aircraft

- **Reference**: X
- **ATC / Advisory.** Center: ZZZ
- **Aircraft Operator**: Corporate
- **Make Model Name**: Light Transport, Low Wing, 2 Turbojet Eng
- **Crew Size.** Number Of Crew: 2
- **Operating Under FAR Part**: Part 91
- **Flight Plan**: IFR
- **Mission**: Passenger
- **Flight Phase**: Initial Climb
- **Airspace.** Class E: ZZZ

### Person

- **Location Of Person.** Aircraft: X
- **Location In Aircraft**: Flight Deck
- **Reporter Organization**: Corporate
- **Function.** Flight Crew: Captain
- **Function.** Flight Crew: Pilot Flying
- **Qualification.** Flight Crew: Air Transport Pilot (ATP)
- **Qualification.** Flight Crew: Instrument
- **Qualification.** Flight Crew: Multiengine
- **Experience.** Flight Crew. Total: 6250
- **Experience.** Flight Crew. Last 90 Days: 50
- **Experience.** Flight Crew. Type: 175
- **ASRS Report Number.** Accession Number: 1872912

### Events

- **Anomaly.** Aircraft Equipment Problem: Critical
- **Anomaly.** Inflight Event / Encounter: Bird / Animal
- **Detector.** Person: Flight Crew
- **Were Passengers Involved In Event**: Y
- **When Detected**: In-flight
- **Result.** Flight Crew: Diverted
Assessments
Contributing Factors / Situations : Environment - Non Weather Related
Primary Problem : Environment - Non Weather Related

Narrative: 1
On DATE we were departing from ZZZ around XA:00 local time. We operate a type aircraft and was departing ZZZ to ZZZ1 to return to our home base with 4 passengers onboard. I was flying as PIC of the trip. Shortly after takeoff, we noticed a small flock of large black birds. We estimated the number to be around 5. During this critical phase of flight there was nearly no time to react. One bird struck the nose of our aircraft around 400 ft AGL. It created a loud thump noise throughout the cabin. The pilot monitoring and I accessed the situation and decided the plane was flying as it should, with no indication of engine damage or unusual flight characteristics. Due to the weather impact of ZZZ we decided to fly under 200 kts and head to a more serviceable airport. We diverted to ZZZ2 and checked in with ZZZ Approach to get a VFR clearance into the Bravo then land at ZZZ2. During cruise flight our passengers made us aware that there was blood on our left wing as well. We landed safely at ZZZ2 and parked at [the] FBO. We got out to check the damage and was surprised to see the nose cone damaged significantly. Part of the bird was inside the nose compartment as it made a hole and good size dent to the nose of the aircraft. There was blood as well on the left wing also around the right engine. After a closer look there does not seem to be any damage to the blades of the right engine. We talked to Company at ZZZ3 and to determine what the next steps are. We grounded the aircraft at ZZZ2 and will be in further discussions with maintenance to determine what the next steps will be to get our plane back home safely.

Synopsis
Corporate Captain reported hitting a bird and then having to deviate.
ACN: 1871513 (50 of 50)

Time / Day
Date: 202201
Local Time Of Day: 0601-1200

Place
Locale Reference.Airport: ZZZ.Airport
State Reference: US
Altitude.AGL.Single Value: 400

Environment
Flight Conditions: VMC
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
Flight Phase: Initial Climb
Route In Use: Vectors
Airspace.Class C: ZZZ

Component: 1
Aircraft Component: Pitot-Static System
Aircraft Reference: X
Problem: Malfunctioning

Component: 2
Aircraft Component: Angle of Attack Vane
Aircraft Reference: X
Problem: Malfunctioning

Person: 1
Location Of Person.Aircraft: X
Location In Aircraft: Flight Deck
 Reporter Organization: Air Carrier
Function.Flight Crew: Pilot Flying
Function.Flight Crew: Captain
Qualification.Flight Crew: Air Transport Pilot (ATP)
Qualification.Flight Crew: Instrument
Qualification.Flight Crew: Multicrew
ASRS Report Number.Accession Number: 1871513
Human Factors: Troubleshooting

Person: 2
After liftoff as the nose wheel was retracting, we heard a loud bang approximately under the Captain window. We noted airspeed disagree flags illuminated on PFD. I noted erroneous airspeed readings followed by the red stall warning tape and stick shaker warnings. The stick shaker fired continuously until after landing. We completed the memory items for unreliable airspeed. We complied with the QRC and QRH checklist. The First Officer's instruments were determined to be accurate Per QRH checklist. We requested priority handling with Departure, climbed to a safe altitude, and received vectors back to ZZZ for an uneventful landing with Captain's airspeed and altitude unreliable. We coordinated with Dispatch, informed the Flight Attendants, and made a PA to the Passengers. No Passenger issues were noted. After landing, we taxied to the Gate and were told by Ground Control that Airport Ops found that we hit a hawk. The AOA (Angle Of Attack) vane was missing from the aircraft due to the bird strike. Logbook write up was completed and Dispatch helped coordinate all parties for debrief.

Narrative: 2

At rotation a loud bang was heard near the Captain's side of the aircraft. After liftoff the Stick Shaker, Airspeed Disagree and Altitude disagree were displayed. Appropriate checklists were accomplished. Appropriate communication was made (ie: Dispatch, Passengers, F/A's, ATC). The aircraft returned to ZZZ for a normal landing. Upon arrival at
the gate it was determined that the Captain's side AOA Vane was broken off. Also, a large hawk was found on the Runway shortly after the takeoff.

Synopsis

B737 flight crew reported a bird strike on takeoff had sheared off the Angle of Attack vane resulting in a loss of airspeed and altitude information and a return to the departure airport.