ASRS Database Report Set

Bird or Animal Strike Reports

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

Update Number ................................................... 26.0

Date of Update................................................... August 31, 2018

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

Number of New Records in Report Set ............. 8

Type of Records in Report Set ......................... For each update, new records received at ASRS will displace a like number of the oldest records in the Report Set, with the objective of providing the fifty most recent relevant ASRS Database records. Records within this Report Set have been screened to assure their relevance to the topic.
TH: 262-7

MEMORANDUM FOR: Recipients of Aviation Safety Reporting System Data

SUBJECT: Data Derived from ASRS Reports

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

ASRS reports are submitted voluntarily. The existence in the ASRS database of reports concerning a specific topic cannot, therefore, be used to infer the prevalence of that problem within the National Airspace System.

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

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

The National Aeronautics and Space Administration and its ASRS current contractor, Booz Allen Hamilton, specifically disclaim any responsibility for any interpretation which may be made by others of any material or data furnished by NÂSA 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
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<tr>
<th>ACN: 1539480 (1 of 50)</th>
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<td>B767-300 flight crew reported a bird strike on takeoff roll, resulting in aircraft damage.</td>
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<th>ACN: 1517241 (7 of 50)</th>
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<td>Bombardier CRJ-700 flight crew reported that immediately after rotation they encountered a large flock of birds.</td>
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<th>ACN: 1511993 (8 of 50)</th>
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<td>Air carrier Captain reported delaying rotation to avoid contact with Turkey Buzzards that have built nests along the runway in MPTO.</td>
<td></td>
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**ACN: 1507286 (9 of 50)**

**Synopsis**
Air Carrier flight crew reported a bird strike during departure.

**ACN: 1503954 (10 of 50)**

**Synopsis**
A319 Captain reported a person was observed walking along and exiting the left side of the runway during takeoff roll.

**ACN: 1501472 (11 of 50)**

**Synopsis**
B737 flight crew reported hitting a flock of birds shortly after takeoff. Immediately after contact they experienced some abnormal engine indications, so they decided to return to the departure airport.

**ACN: 1496047 (12 of 50)**

**Synopsis**
B737NG flight crew reported returning to departure airport after experiencing a bird strike at 800 feet AGL on initial climb.

**ACN: 1495522 (13 of 50)**

**Synopsis**
CRJ-700 flight crew reported damage to the left wing from an encounter with migratory geese at 7,000 ft.

**ACN: 1490666 (14 of 50)**

**Synopsis**
B737-700 flight crew reported diverting due to System A hydraulic failure.

**ACN: 1490078 (15 of 50)**

**Synopsis**
Air carrier flight crew reported encountering multiple bird strikes shortly after takeoff from SFO resulting in spurious flight instrument indications. After dumping fuel, a return to the departure airport was safely accomplished.

**ACN: 1487708 (16 of 50)**

**Synopsis**
PA28 pilots reported that during landing rollout, a deer walked in front of the aircraft and was struck by the propeller.

**ACN: 1481106 (17 of 50)**

**Synopsis**
Air Carrier Captain reported that a cleaning crew saw a snake under the Captain's rudder pedals and was unable to capture it. The aircraft was rejected.

**ACN: 1480719 (18 of 50)**

**Synopsis**
B737-700 flight crew reported a bird strike after takeoff which resulted in damage to the right engine and return to departure airport.

**ACN: 1473349 (19 of 50)**

**Synopsis**
B757 pilot reported a TCAS RA on final with an aircraft that the tower knew about but did not issue as traffic.

**ACN: 1468377 (20 of 50)**

**Synopsis**
B737-800 crew reported a bird strike on departure from DCA which resulted in a loud squeal and a diversion.

**ACN: 1467539 (21 of 50)**

**Synopsis**
MD80 pilot reported a bird strike on rotation that led to engine surges, odor, and smoke in the cabin.

**ACN: 1465118 (22 of 50)**

**Synopsis**
A Maintenance Technician reported that maintenance took a delay because of the required inspection for a bird strike was not accomplished per work cards.

**ACN: 1464212 (23 of 50)**

**Synopsis**
GA flight instructor reported being surprised by skydivers while in the pattern at Mulino State Airport after requesting information several times over the CTAF frequency.

**ACN: 1463768 (24 of 50)**
Synopsis
B737 flight crew reported a bird strike on climbout that resulted in momentary power reduction. After an overweight landing, the crew encountered locked brakes.

ACN: 1460855 (25 of 50)

Synopsis
CRJ 200 flight crew reported accidentally deploying the passengers oxygen masks after being distracted by a mosquito in the cockpit.

ACN: 1458832 (26 of 50)

Synopsis
A319 Captain reported returning to departure airport after birds were ingested into Number 1 engine shortly after takeoff, resulting in catastrophic engine failure.

ACN: 1455601 (27 of 50)

Synopsis
B737-800 flight crew reported returning to departure airport after ingesting birds into the right engine.

ACN: 1453118 (28 of 50)

Synopsis
B737 flight crew reported an engine failure on takeoff due to a bird strike. After the crew accomplished checklist items, a successful single engine approach and landing was made.

ACN: 1452148 (29 of 50)

Synopsis
A319 First Officer reported that during climb they lost the Flight Director and the Autopilot disconnected due to multiple system failures.

ACN: 1450291 (30 of 50)

Synopsis
Europa XS pilot reported a gear up landing as a result of being distracted by a near bird strike and the lack of a landing gear warning system.

ACN: 1445021 (31 of 50)

Synopsis
Air carrier flight crew reported being struck by lightning on descent to ROA. Evidence of a bird strike was also noted after landing.
ACN: 1443851 (32 of 50)

Synopsis
ORD Local Controller reported issuing an aircraft a go-around was then issued nonstandard go-around instructions by the Departure Controller.

ACN: 1437095 (33 of 50)

Synopsis
B737 flight crew reported they were informed of possible damage near the top of the vertical stabilizer. After maintenance examination, the aircraft was taken out of service.

ACN: 1426769 (34 of 50)

Synopsis
BE40 Captain reported a bird strike in the number 1 engine while on downwind at an uncontrolled airport. Landing on one engine was accomplished shortly after.

ACN: 1417841 (35 of 50)

Synopsis
Boeing 737 flight crew encountered a flock of geese at 1,000ft. The Captain maneuvered to avoid the birds and ended up high and left of the ILS. During his correction, the crew got a sink rate call out and continued to land in an un-stabilized approach condition.

ACN: 1415233 (36 of 50)

Synopsis
B767-300 First Officer reported departing on an unused available runway to avoid exceeding their hold over time. In doing so, the crew encountered a flock of birds and returned to departure airport as a precaution.

ACN: 1409596 (37 of 50)

Synopsis
B737-800 Captain reported returning to the departure airport after noticing vibration in climb. On the ground, Maintenance reported "major core damage" to the #1 engine from a bird strike.

ACN: 1409294 (38 of 50)

Synopsis
B737-800 First Officer reported a possible bird strike at 2,000 feet in the left engine during climb out causing a popping noise and some vibration. An odor is also detected and the crew elected to return to the departure airport.
**ACN: 1407062** *(39 of 50)*

**Synopsis**
While taxiing for takeoff, one wing of a light twin struck a ground worker who was apparently cutting weeds around a taxi light. The pilot stopped and shutdown the aircraft to check on the individual. The individual was face down, but recovered to stand erect, and he knew his name and the date. An ambulance was summoned for the injured worker.

**ACN: 1404878** *(40 of 50)*

**Synopsis**
B737 flight crew reported a bird strike with about 20 pigeons while on short final to BUR.

**ACN: 1404256** *(41 of 50)*

**Synopsis**
A320 First Officer reported a return to the departure airport after sustaining damage to the #1 engine and #2 pack inlet door.

**ACN: 1403252** *(42 of 50)*

**Synopsis**
B737-800 flight crew reported returning to departure airport after experiencing multiple bird strikes on departure. After landing "significant damage" was found to the right engine cowl and fan blades.

**ACN: 1401353** *(43 of 50)*

**Synopsis**
Air carrier flight crew reported returning to departure airport due to a bird strike shortly after takeoff that resulted in failure of the left engine.

**ACN: 1400331** *(44 of 50)*

**Synopsis**
B737-800 First Officer reported returning to departure airport after experiencing increased vibration associated with ingesting a large bird into #1 engine.

**ACN: 1399956** *(45 of 50)*

**Synopsis**
A321 Captain reported returning to the departure airport after experiencing a bird strike on initial climb.

**ACN: 1394633** *(46 of 50)*
Synopsis
B737 flight crew reported a bird strike below 1,000 feet on departure which caused a momentary compressor stall before resuming normal operation. Flight returns to the departure airport for an overweight landing.

ACN: 1394074 (47 of 50)

Synopsis
B737-800 First Officer reported while at V1 speed encountered a bird strike so they aborted the takeoff.

ACN: 1393901 (48 of 50)

Synopsis
ERJ-170 Captain noted a dog had been loaded in the aft cargo bin. Because the animal would freeze in that pit during flight, he had ramp personnel move the dog to the forward cargo pit and alerted the ramp personnel that animals must always be put in the forward hold.

ACN: 1389168 (49 of 50)

Synopsis
B757-200 Captain reported receiving a TE FLAP DISAGREE message on approach. On the ground, evidence of a bird strike on the flaps was noted.

ACN: 1389136 (50 of 50)

Synopsis
B737 Captain reported a bird strike that damaged the #1 engine while on approach in IMC.
Report Narratives
ACN: 1539480 (1 of 50)

Time / Day
Date: 201805
Local Time Of Day: 1201-1800

Place
Locale Reference.Airport: GIF.Airport
State Reference: FL
Altitude.AGL.Single Value: 0

Environment
Flight Conditions: VMC
Light: Daylight

Aircraft
Reference: X
ATC / Advisory. UNICOM: GIF
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: IFR
Flight Phase: Landing
Route In Use: Visual Approach
Airspace. Class E: GIF

Person
Reference: 1
Location Of Person. Aircraft: X
Location In Aircraft: Flight Deck
Reporter Organization: Personal
Function. Flight Crew: Single Pilot
Function. Flight Crew: Pilot Flying
Qualification. Flight Crew: Commercial
Qualification. Flight Crew: Flight Instructor
Qualification. Flight Crew: Instrument
Qualification. Flight Crew: Multiengine
Experience. Flight Crew. Total: 450
ASRS Report Number. Accession Number: 1539480
Human Factors: Time Pressure

Events
Anomaly. Aircraft Equipment Problem: Less Severe
Anomaly. Ground Event / Encounter: Person / Animal / Bird
Detector. Person: Flight Crew
Miss Distance. Horizontal: 100
Miss Distance. Vertical: 200
When Detected: In-flight
Result: Flight Crew: Took Evasive Action

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

Narrative: 1
We were on doing a touch and go at Winter Haven (GIF) and after touchdown, a construction worker walked right out on the runway in our path. The student had no time to react other than lock up the brakes. I quickly took the flight controls and applied full power and lifted the aircraft off the ground to avoid hitting the person on the active runway. We avoided any type of accident, but when we returned back to PIE, we found the tires flat spotted on both mains.

Synopsis
PA-28 flight crew reported ground encounter caused by a construction worker sauntering onto runway during touch and go landing requiring evasive action by flight crew.
ACN: 1538458 (2 of 50)

**Time / Day**
- Date: 201804
- Local Time Of Day: 0001-0600

**Place**
- Locale Reference: ATC Facility: ZZZ.TRACON
- State Reference: US
- Altitude.MSL.Single Value: 6000

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

**Aircraft**
- Reference: X
- ATC / Advisory.TRACON: ZZZ
- Aircraft Operator: Air Carrier
- Make Model Name: B777-200
- Crew Size.Number Of Crew: 2
- Operating Under FAR Part: Part 121
- Flight Plan: IFR
- Mission: Passenger
- Flight Phase: Descent
- Airspace.Class B: ZZZ

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

**Person : 1**
- Reference: 1
- Location Of Person.Aircraft: X
- Location In Aircraft: Flight Deck
- Reporter Organization: Air Carrier
- Function.Flight Crew: Pilot Flying
- Function.Flight Crew: Captain
- Qualification.Flight Crew: Air Transport Pilot (ATP)
- Qualification.Flight Crew: Instrument
- Qualification.Flight Crew: Multiengine
- Experience.Flight Crew.Total: 28000
- ASRS Report Number.Accession Number: 1538458
- Human Factors: Troubleshooting

**Person : 2**
- Reference: 2
- Location Of Person.Aircraft: X
- Location In Aircraft: Flight Deck
It was my leg flying. Our clearance was to descend to 5000 ft. On right base at about 6000 ft, in the landing lights, my FO (First Officer) and I saw a large flock of white birds pass just under the nose of the aircraft. We felt a slight vibration from the left engine, followed by a roll back and EICAS "Left Engine Fail" message. [Crew] began to work the checklist as I notified ATC stating we had hit a flock of birds and apparently lost the left engine. I requested ARFF (Airport Rescue and Fire Fighting) to meet us as we were cleared directly to the runway. As I turned my attention to the checklist progress, [crew] had determined that the auto relight system had engaged and the engine was accelerating back to idle. They informed ATC that the engine appeared to be functioning normally. The EICAS "Engine Fail" message went away so we configured and proceeded inbound for a normal 25 flap landing. We stopped midfield on the runway to allow ARFF to inspect the aircraft. I had everyone remain seated and then had ARFF follow us to our gate. A great job by [crew]. Their professionalism was indispensable.
**Narrative: 3**

[Report narrative contained no additional information.]

**Synopsis**

B777 flight crew reported a temporary loss of thrust in one engine after a bird strike.
ACN: 1537080

Time / Day
Date: 201804
Local Time Of Day: 1801-2400

Place
Locale Reference.Airport: JVY.Airport
State Reference: IN
Altitude.AGL.Single Value: 0

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

Aircraft
Reference: X
ATC / Advisory.CTAF: JVY
Aircraft Operator: Corporate
Make Model Name: Light Transport
Crew Size.Number Of Crew: 2
Operating Under FAR Part: Part 91
Flight Plan: IFR
Mission: Passenger
Flight Phase: Landing

Person
Reference: 1
Location Of Person.Aircraft: X
Location In Aircraft: Flight Deck
Reporter Organization: Corporate
Function.Flight Crew: Captain
Function.Flight Crew: Pilot Flying
Qualification.Flight Crew: Instrument
Qualification.Flight Crew: Air Transport Pilot (ATP)
Qualification.Flight Crew: Flight Instructor
Qualification.Flight Crew: Multiengine
Experience.Flight Crew.Total: 6000
Experience.Flight Crew.Last 90 Days: 80
Experience.Flight Crew.Type: 60
ASRS Report Number.Accession Number: 1537080
Human Factors: Situational Awareness
Analyst Callback: Completed

Events
Anomaly.Ground Event / Encounter: Person / Animal / Bird
Detector.Person: Flight Crew
When Detected: In-flight
Result.Genera: Maintenance Action
Result. Flight Crew: Took Evasive Action
Result. Aircraft: Aircraft Damaged

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

Narrative: 1
Upon landing roll out at approximately 80 knots, a deer ran into the path of the aircraft. I was unable to stop or depart given the airspeed. I attempted to swerve some and managed to miss the main gear, but the deer impacted the right wing root. It then rolled over the wing judging by the blood splatter. A wildlife report was filed and I am waiting on the cost of damage as to notify the NTSB.

Callback: 1
Reporter stated that the FAA FSDO inspected aircraft and no NTSB report was required.

Synopsis
General aviation aircraft pilot reported they struck a deer on landing at JVY.
ACN: 1524893

Time / Day
Date: 201803
Local Time Of Day: 0601-1200

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

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

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

Person: 1
Reference: 1
Location Of Person.Aircraft: X
Location In Aircraft: Flight Deck
Reporter Organization: Air Carrier
Function.Flight Crew: Captain
Function.Flight Crew: Pilot Flying
Qualification.Flight Crew: Air Transport Pilot (ATP)
ASRS Report Number.Accession Number: 1524893

Person: 2
Reference: 2
Location Of Person.Aircraft: X
Location In Aircraft: Flight Deck
Reporter Organization: Air Carrier
Function.Flight Crew: First Officer
Function.Flight Crew: Pilot Not Flying
Qualification.Flight Crew: Air Transport Pilot (ATP)
Experience.Flight Crew.Type: 1100
ASRS Report Number.Accession Number: 1525157

Events
Anomaly.Aircraft Equipment Problem : Less Severe
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.General : Flight Cancelled / Delayed
Result.General : Maintenance Action
Result.Flight Crew : Landed As Precaution
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
During the takeoff, right after rotation, a flock of small birds crossed in front of us at approximately 10 ft AGL. I was not able to avoid them and we both heard the sound of impact from birds being struck. Immediately we heard a "buzzsaw" sound coming from the Number 1 engine as well as saw the LP vibration on engine 1 jump to 1.9, which was approximately three times that of the other spools. We could feel the vibration also. In addition there was briefly a smell of burning animal flesh in the cockpit. Knowing we had ingested a bird into that engine, I instructed the FO to tell ATC we needed to return to the field for a precautionary landing. The engine still produced normal thrust and we saw no other abnormal indications. I stayed in the pattern while the FO notified the flight attendants of what happened and that we'd be returning to the field for a precautionary normal landing. He also informed the passengers via the PA.

I setup for a downwind while the FO ran the climb, descent, and approach checks and reloaded the FMS for the air return. We were at approximately 73,500 lbs so not overweight. During this entire time the engine still made the loud buzzsaw sound and vibrations were still felt. The odd smell didn't last more than a couple minutes.

I did not declare an emergency as this was a precautionary landing and thrust was still normal. We were airborne for probably less than 10 minutes. We landed without incident and taxied to the gate. I made a PA informing the passengers that we had ingested a bird and that I wanted them to deplane as maintenance needed to inspect the plane. I called Dispatch and informed them of the air return and maintenance write up. I wrote the plane up and informed Maintenance Control.

Contract maintenance showed up about thirty minutes later and did find bird remains on the interior of the nacelle, and on multiple stator vanes. Also two fan blades had been bent considerably. As a result the flight was canceled for an indefinite repair time. No remains were found elsewhere on any part of the airframe. The city ops vehicle said he found the remains of two birds on his runway inspection.

Narrative: 2
[Report narrative contained no additional information.]

Synopsis
EMB-175 flight crew reported returning to departure airport after ingesting birds into the Number 1 engine. Ground inspection revealed damage to several fan stage blades.
**ACN: 1523678 (5 of 50)**

**Time / Day**
- Date: 201803
- Local Time Of Day: 0601-1200

**Place**
- Locale Reference.Airport: ZZZ.Airport
- State Reference: US
- Altitude.AGL.Single Value: 10

**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
- Airspace.Class C: ZZZ

**Person: 1**
- Reference: 1
- Location Of Person.Aircraft: X
- Location In Aircraft: Flight Deck
- Reporter Organization: Air Carrier
- Function.Flight Crew: Pilot Flying
- Function.Flight Crew: Captain
- Qualification.Flight Crew: Air Transport Pilot (ATP)
- Experience.Flight Crew.Last 90 Days: 337
- Experience.Flight Crew.Type: 10000
- ASRS Report Number.Accession Number: 1523678

**Person: 2**
- Reference: 2
- Location Of Person.Aircraft: X
- Location In Aircraft: Flight Deck
- Reporter Organization: Air Carrier
- Function.Flight Crew: Pilot Not Flying
- Function.Flight Crew: First Officer
- Experience.Flight Crew.Last 90 Days: 53
- ASRS Report Number.Accession Number: 1523691

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

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

Narrative: 1
At or between 10 feet to 50 feet AGL during takeoff rotation, two Canadian geese flew across our nose with about 120 degrees right aspect angle. I saw the birds and attempted a very slight upward rotation to avoid them; however impact occurred shortly thereafter, into the Number 1 engine. I elected to leave the landing gear down and the takeoff flaps set, as I did not know if the birds hit the nose or nose gear. The impact felt very hard, like it was to the lower front of the aircraft. I continued the takeoff climb to 1000 feet AGL, and then started a right turn out and climb to 2000 feet. After impact, there was a very loud bang and instantaneous heavy vibration in the airframe.

Both the First Officer and I noticed a smell of burning bird in the cockpit. I reduced the power setting on the number 1 engine with no noticeable reduction in the vibration. I called for the Engine Fire, Seizure, and Separation Checklist and noticed high vibration on the number 1 engine, approximately 3.3. I pulled the thrust down to idle on the number 1 engine and noticed little to no vibration thereafter. As the FO was reading the checklist, I made the decision to leave the engine running at idle and to transition to the Single Engine Landing Checklist. I informed the Flight Attendants of the situation, and that we were returning to land. I did not brief the passengers as we were very busy. I started the APU and set up for the ILS.

Tower was concerned about our flight path. I directed the FO to reply we were turning right base to final and prepared to land. On final we ran the Before Landing Checklist and were losing sight of the runway due to heavy rain. On short final we saw the runway with good visibility to land. We landed and taxied clear, at which time I briefed the passengers on what had happened. We taxied to the gate without incident and shut down.

Things happened very, very fast and I rushed the QRH Checklist. We missed one item, to select flap inhibit, which gave us a too low flaps warning on final approach. Due to our heavy weight and flaps 15 configuration, it was very hard to slow down. Due to the rain, I was thinking we might have to go around, but when we broke out, we were on glide path and about VREF plus 20 knots fast, but slowing as we passed over the overrun. Landing thereafter was uneventful.

Narrative: 2
[Report narrative contained no additional information.]

Synopsis
B737-700 flight crew reported returning to the departure airport after a bird strike in the Number 1 engine that caused significant vibration.
**Time / Day**
Date: 201802
Local Time Of Day: 0001-0600

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

**Environment**
Light: Night

**Aircraft**
Reference: X
ATC / Advisory.Tower: ZZZ
Aircraft Operator: Air Carrier
Make Model Name: B767-300 and 300 ER
Crew Size.Number Of Crew: 2
Operating Under FAR Part: Part 121
Flight Plan: IFR
Nav In Use: FMS Or FMC
Flight Phase: Takeoff
Route In Use: None
Airspace.Class C: ZZZ

**Component**
Aircraft Component: Fan Blade
Aircraft Reference: X

**Person: 1**
Reference: 1
Location Of Person.Aircraft: X
Location In Aircraft: Flight Deck
Reporter Organization: Air Carrier
Function.Flight Crew: Pilot Flying
Function.Flight Crew: First Officer
Qualification.Flight Crew: Air Transport Pilot (ATP)
Qualification.Flight Crew: Multiengine
Qualification.Flight Crew: Instrument
ASRS Report Number.Accession Number: 1520823
Human Factors: Troubleshooting

**Person: 2**
Reference: 2
Location Of Person.Aircraft: X
Location In Aircraft: Flight Deck
Reporter Organization: Air Carrier
Function.Flight Crew: Captain
Function.Flight Crew: Pilot Not Flying
Qualification.Flight Crew : Multiengine
Qualification.Flight Crew : Air Transport Pilot (ATP)
Qualification.Flight Crew : Instrument
Experience.Flight Crew.Total : 14000
Experience.Flight Crew.Last 90 Days : 80
Experience.Flight Crew.Type : 3000
ASRS Report Number.Accession Number : 1520825
Human Factors : Troubleshooting

Events
Anomaly.Aircraft Equipment Problem : Less Severe
Anomaly.Flight Deck / Cabin / Aircraft Event : Smoke / Fire / Fumes / Odor
Anomaly.Inflight Event / Encounter : Bird / Animal
Detector.Person : Flight Crew
Were Passengers Involved In Event : N
When Detected : In-flight
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 the takeoff roll, at approximately 120 knots, I saw/felt/heard what I perceived to be a bird strike of the left side of the aircraft. The bird (?) appeared to be white and moderate to large size. It seemed to be a glancing blow. No engine anomalies nor control issues were present thus the takeoff continued normally. There was a short-lived (one minute or less) very faint burnt odor, which cleared rapidly during the initial climbout. The flight proceeded uneventfully until after landing and taxiing clear of the runway, the Captain noticed a large cloud of smoke, which appeared to be coming from the aircraft. The smoke quickly cleared and we had no indications in the cockpit of any problems. We stopped the aircraft on the taxiway and requested Airport Rescue and Fire Fighting (ARFF) inspect the aircraft before proceeding into the ramp. ARFF reported no abnormalities. Brake temperatures were normal. We then proceeded into the ramp. After exiting the aircraft the Captain and Mechanic saw damage to several of the left engine fan blades and damage to an inspection panel inboard of the left engine.

Narrative: 2
[Report narrative contained no additional information.]

Synopsis
B767-300 flight crew reported a bird strike on takeoff roll, resulting in aircraft damage.
**Time / Day**

Date: 201802  
Local Time Of Day: 1201-1800

**Place**

Locale Reference.Airport: ZZZ.Airport  
State Reference: US  
Altitude.AGL.Single Value: 10

**Environment**

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

**Aircraft**

Reference: X  
ATC / Advisory.Tower: ZZZ  
Aircraft Operator: Air Carrier  
Make Model Name: Regional Jet 700 ER/LR (CRJ700)  
Crew Size.Number Of Crew: 2  
Operating Under FAR Part: Part 121  
Flight Plan: IFR  
Mission: Passenger  
Flight Phase: Takeoff  
Airspace.Class C: ZZZ

**Person : 1**

Reference: 1  
Location Of Person.Aircraft: X  
Location In Aircraft: Flight Deck  
Reporter Organization: Air Carrier  
Function.Flight Crew: Captain  
Function.Flight Crew: Pilot Flying  
Qualification.Flight Crew: Air Transport Pilot (ATP)  
ASRS Report Number.Accession Number: 1517241  
Human Factors: Situational Awareness

**Person : 2**

Reference: 2  
Location Of Person.Aircraft: X  
Location In Aircraft: Flight Deck  
Reporter Organization: Air Carrier  
Function.Flight Crew: First Officer  
Function.Flight Crew: Pilot Not Flying  
Qualification.Flight Crew: Air Transport Pilot (ATP)  
ASRS Report Number.Accession Number: 1516998  
Human Factors: Situational Awareness

**Events**
Anomaly.Aircraft Equipment Problem : Less Severe
Anomaly.Inflight Event / Encounter : Bird / Animal
Detector.Person : Flight Crew
When Detected : In-flight
Result.General : Maintenance Action
Result.Flight Crew : Landed As Precaution
Result.Flight Crew : Landed in Emergency Condition
Result.Flight Crew : Returned To Departure Airport
Result.Flight Crew : Requested ATC Assistance / Clarification
Result.Air Traffic Control : Provided Assistance
Result.Aircraft : Aircraft Damaged

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

Narrative: 1

Weather conditions at time of door closure was moderate snow showers. We required de-ice. We did this 10 feet off the gate. Normal thrust with both wing and cowl anti-ice was used for takeoff. After V1, at rotation, I noticed a flock of over approximately 100 birds flying off the runway, vertically, directly in the path of our takeoff. We were approximately 10 feet off the runway when we hit the birds. There was no evasive action we could take. We hit multiple, more than 7 birds on takeoff. One bird hit the middle of our windshield pillar and was stuck to the windshield wiper until about 7,000 feet.

My immediate reaction was to fly the plane as a normal departure until we could assess the situation. My immediate concern was possible engine damage and current icing conditions. We climbed to 10,000 feet for the safety of altitude and conditions. At transition of airspeed from 200 to 250 knots, we started noticing a vibration and vibrating noise from the front nose area of the aircraft. I [advised] ATC that we would like to return to [departure airport].

Our vectors were quick and direct. My First Officer had about 200 hours in the aircraft. If we intercepted the localizer directly we would not have been set up in time. I could also see that the First Officer was having difficulty from time pressure to get checklists done and prepare for landing. Weights, speeds, proper setup and briefing of the approach were of concern. I informed approach that we needed more time and we were vectored across the localizer. When we were ready I notified ATC. The extra time helped considerably. The weights and speed numbers for landing came back from ACARS and said we would be at 67,700 pounds on landing, an overweight landing. We then planned and performed an overweight landing on a snow covered runway. The landing was very smooth and the nose wheel was kept off the ground for the longest possible time due to possible nose gear issues. (See previously described vibration noted to front of airplane.)

After landing we checked that all passengers were okay, with no injuries, with the flight attendants. We parked off gate with plane stairs for unloading. Fire rescue boarded the airplane prior to the passengers unloading. During unloading, one passenger that was on his phone fell down the airplane stairs and was caught by two firemen before hitting anything. The gentleman, reported by the gate agent, went to the hospital.

Airport Authority found 7 or more dead birds on the runway. Maintenance found 5 bird strikes on the aircraft. One to the center pillar of the windshield, one to the number two
pitot tube under the First Officer's window, [and] two strikes to the right wing. I believe we also took one to two birds in the left engine.

**Narrative: 2**

Bird strike immediately after rotation. Large flock of birds (approximately 50) flew across runway from left to right. Evasive action was impossible. Captain and I both called out "birds." Continued standard callouts and configuration. Upon climb we both heard an abnormal noise and the decision was made to return to the field. ATC was notified. Landing was uneventful. Upon inspection of aircraft post-landing, evidence of at least 5 strikes was observed.

**Synopsis**

Bombardier CRJ-700 flight crew reported that immediately after rotation they encountered a large flock of birds.
ACN: 1511993 (8 of 50)

Time / Day
Date: 201801
Local Time Of Day: 0001-0600

Place
Locale Reference.Airport: MPTO.Airport
State Reference: FO
Altitude.MSL.Single Value: 2000

Environment
Flight Conditions: VMC
Light: Daylight

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

Person
Reference: 1
Location Of Person.Aircraft: X
Location In Aircraft: Flight Deck
Reporter Organization: Air Carrier
Function.Flight Crew: Captain
Function.Flight Crew: Pilot Flying
Qualification.Flight Crew: Air Transport Pilot (ATP)
Experience.Flight Crew.Total: 23500
Experience.Flight Crew.Type: 9483
ASRS Report Number.Accession Number: 1511993

Events
Anomaly.Deviation - Procedural: Published Material / Policy
Anomaly.Ground Event / Encounter: Person / Animal / Bird
Detector.Person: Flight Crew
When Detected.Other
Result.Flight Crew: Took Evasive Action

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

Narrative: 1
Landed Panama City many times in the 20 years I have been flying down south. This time I noticed something different. The Turkey Buzzard population were roosting next to and in the grasses that were freshly cut besides the runway. I noted large nest of birds peering at us as we exited the runway, and on the takeoff roll the following day we almost had a bird fly into our path right after I called V1. I called to the flying pilot to delay, then rotate, thus causing us to rotate 2000 ft from the end, just missing these large fowl that have wing span looking over 10 ft wide. They are spaced along the side in nesting positions. Years ago I worked an airport management job and noted all U.S. airports have Wildlife Control. I'm not sure if Panama has Wildlife Control but it sure would be nice to know they are extracting these guys from the area while we are taking off at Max Gross Wt. Not a comfy feeling knowing for 7000 ft we could have ingested one of these dudes.

**Synopsis**

Air carrier Captain reported delaying rotation to avoid contact with Turkey Buzzards that have built nests along the runway in MPTO.
ACN: 1507286 (9 of 50)

Time / Day
Date: 201712
Local Time Of Day: 0601-1200

Place
Locale Reference.Airport: OAK.Airport
State Reference: CA
Altitude.MSL.Single Value: 2000

Environment
Light: Dawn

Aircraft
Reference: X
ATC / Advisory.TRACON: NCT
Aircraft Operator: Air Carrier
Make Model Name: Large Transport
Crew Size.Number Of Crew: 2
Operating Under FAR Part: Part 121
Flight Plan: IFR
Mission: Passenger
Flight Phase: Initial Climb
Route In Use.SID: OAKLAND TWO
Airspace.Class C: OAK

Person: 1
Reference: 1
Location Of Person.Aircraft: X
Location In Aircraft: Flight Deck
Reporter Organization: Air Carrier
Function.Flight Crew: Pilot Not Flying
Function.Flight Crew: First Officer
Qualification.Flight Crew: Air Transport Pilot (ATP)
Experience.Flight Crew.Last 90 Days: 318
Experience.Flight Crew.Type: 5600
ASRS Report Number.Accession Number: 1507286

Person: 2
Reference: 2
Location Of Person.Aircraft: X
Location In Aircraft: Flight Deck
Reporter Organization: Air Carrier
Function.Flight Crew: Captain
Function.Flight Crew: Pilot Flying
Qualification.Flight Crew: Air Transport Pilot (ATP)
ASRS Report Number.Accession Number: 1507294
Human Factors: Distraction

Events
Anomaly: Aircraft Equipment Problem: Less Severe
Anomaly: Inflight Event / Encounter: Bird / Animal
Detector: Person: Observer
Detector: Person: Flight Crew
When Detected: In-flight
Result: General: Maintenance Action
Result: Aircraft: Aircraft Damaged

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

Narrative: 1
I was PM (Pilot Monitoring). Captain was PF (Pilot Flying). We have flown many times together. We departed on the OAK 2 Departure. We were delayed at the gate but I don't believe that manifested itself as a causal factor in the bird strike. We leveled off at 2000 ft as we checked in with NorCal Departure. NorCal told us that one mile in front of us there might be traffic. The Controller was getting a non-reporting return. We did not acquire any traffic. Controller reported us clear and instructed us to climb unrestricted to FL190. We put 19,000 ft in the altitude and initiated a climb. Just as the climb started, we passed through a flock of birds that were not discernible until they were right in front of us. They were brown in color and, for the moment I saw them, appeared smaller than Water Fowl; maybe Finch to Crow size. We knew we had at least one strike, audible. We suspected more.

Aircraft performed normally on controls. Engine indications remained entirely normal. No abnormal odor. Captain remained PF. I relayed to ATC the bird strike. I then referred to the QRH (no guidance), AOM (Aircraft Operating Manual) Non Normal bird strikes, and [other manuals] guidance. We contacted Dispatch with notification of the strike. About this time, Non-rev Pilot in back communicated that there was a large dent in the number 2 nacelle leading edge. Captain kept control. Using security protocol, I went to Passenger compartment and observed damage. Baseball-Softball sized dent leading edge number 2 nacelle. The dent contour suggested that the bird remains went over nacelle not thru the engine. We took photos. We reviewed photos on flight deck and, given good engine ops and no other observed damage we elected to continue.

Safe, uneventful flight, approach, and landing. Upon post flight inspection, we observed a softball size hole in the leading edge of the FO (First Officer) side horizontal stabilizer. This was a location of another strike. We could not observe this location in flight and, since the aircraft was operating entirely normally, we had no reason to suspect significant further damage on aircraft.

Narrative: 2
[Report narrative contained no additional information.]

Synopsis
Air Carrier flight crew reported a bird strike during departure.
**ACN: 1503954** (10 of 50)

**Time / Day**
- Date: 201712
- Local Time Of Day: 0601-1200

**Place**
- Locale Reference: Airport: RNO.Airport
- State Reference: NV
- Altitude: AGL. Single Value: 0

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

**Aircraft**
- Reference: X
- ATC / Advisory: Tower: RNO
- 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: Takeoff
- Airspace: Class C: RNO

**Person: 1**
- Reference: 1
- Location Of Person: Aircraft: X
- Location In Aircraft: Flight Deck
- Reporter Organization: Air Carrier
- Function: Flight Crew: Pilot Flying
- Function: Flight Crew: First Officer
- Experience: Flight Crew: Total: 12046
- Experience: Flight Crew: Type: 5611
- ASRS Report Number: Accession Number: 1503954

**Person: 2**
- Reference: 2
- Location Of Person: Aircraft: X
- Location In Aircraft: Flight Deck
- Reporter Organization: Air Carrier
- Function: Flight Crew: Captain
- Function: Flight Crew: Pilot Not Flying
- Qualification: Flight Crew: Air Transport Pilot (ATP)
- Experience: Flight Crew: Total: 14728
- Experience: Flight Crew: Type: 8707
- ASRS Report Number: Accession Number: 1504373

**Events**
Anomaly.Deviation - Procedural : Security
Anomaly.Ground Event / Encounter : Person / Animal / Bird
Detector.Person : Flight Crew
When Detected : In-flight
Result.General : None Reported / Taken

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

Narrative: 1
Well into takeoff roll, above 100 knots, I observed a person exiting the left side of the runway. The person was well clear of the left wingtip and I took no evasive action to avoid the person. Once safely airborne, the Captain reported the position of the person to RNO tower.

Narrative: 2
On takeoff roll out of RNO (16R-First Officer flying), I noticed a young man walking along the edge of the runway while we were rolling down the runway. After liftoff, I reported it to the tower, and they diverted the other landing aircraft to runway 16L. Not really sure what this guy was doing walking on the runway, or what his intentions were.

Synopsis
A319 Captain reported a person was observed walking along and exiting the left side of the runway during takeoff roll.
**Time / Day**
Date: 201711
Local Time Of Day: 1201-1800

**Place**
Locale Reference.Airport: ZZZ.Airport
State Reference: US
Altitude.MSL.Single Value: 500

**Environment**
Light: Night

**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
Flight Phase: Initial Climb
Airspace.Class C: ZZZ

**Person: 1**
Reference: 1
Location Of Person.Aircraft: X
Location In Aircraft: Flight Deck
Reporter Organization: Air Carrier
Function.Flight Crew: Pilot Flying
Function.Flight Crew: Captain
Qualification.Flight Crew: Air Transport Pilot (ATP)
Qualification.Flight Crew: Multiengine
Qualification.Flight Crew: Instrument
ASRS Report Number.Accession Number: 1501472

**Person: 2**
Reference: 2
Location Of Person.Aircraft: X
Location In Aircraft: Flight Deck
Reporter Organization: Air Carrier
Function.Flight Crew: Pilot Not Flying
Function.Flight Crew: First Officer
Qualification.Flight Crew: Air Transport Pilot (ATP)
Qualification.Flight Crew: Instrument
Qualification.Flight Crew: Multiengine
ASRS Report Number.Accession Number: 1501499
Events

Anomaly.Aircraft Equipment Problem : Less Severe
Anomaly.Inflight Event / Encounter : Bird / Animal
Detector.Person : Flight Crew
When Detected : In-flight
Result.Flight Crew : Landed As Precaution
Result.Flight Crew : Landed in Emergency Condition
Result.Flight Crew : Diverted
Result.Flight Crew : Returned To Departure Airport
Result.Air Traffic Control : Provided Assistance
Result.Aircraft : Aircraft Damaged

Assessments

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

Narrative: 1

On initial climbout, we encountered an enormous flock of very large birds. At least one bird was engulfed in the number 2 engine and another struck the left retractable Landing light. We heard loud impacts of birds on both sides of the aircraft and noticed an immediate airframe vibration noise coming from the right side (number 2 engine). The number 1 engine seemed to not suffer damage and appeared to be operating normally. I was the Pilot Flying (PF), and lowered the nose to continue a shallow climb. This allowed me to reduce the thrust on the number 2 engine to reduce the vibration. At this reduced thrust setting, Vibration on the engine instruments indicated 2.4 on the number 2, and 0.7 on the number 1 engine (which was running at a much higher thrust setting).

We didn't have much excess airspeed as we were very light out, but we continued a shallow climb allowing the aircraft to slowly accelerate as well. We notified Tower that we were returning to the field. I called the Flight Attendants and told them we were returning to [departure airport]. I didn't have time to notify the Passengers as we were quite busy. We were given a left turn to a heading of 010 and an altitude of 2000’. At that point we were climbing through 2300’ so I descended back down to 2000’. Because of our close proximity to [the parallel runway] (the closer runway along our northern downwind track), we initially requested [a different runway] (for a more normal turn radius).

However, there was Company traffic on a 10 mile final, so I requested [the parallel runway] and we widened our downwind leg some (to afford a normal turn to the closer [the parallel runway]). I operated the number 2 engine close to flight idle to reduce the airframe vibration. We utilized the FMC computed landing speeds, with Flap 30 and auto brakes 2. Our weight at this time was 111,000 pounds. Aside from the vibration coming from the number 2 engine, and the smell of cooked bird, we had no other abnormal indications. We configured the aircraft for landing, completed the Before Landing Checklist and made an uneventful landing. After we turned off the runway, I shut number 2, we started the APU, and taxied back to the gate we just departed.

Narrative: 2

Emergency vehicles and Personnel followed and met aircraft at gate along with Maintenance. We advised Passengers after returning to the gate on the ground.

Synopsis
B737 flight crew reported hitting a flock of birds shortly after takeoff. Immediately after contact they experienced some abnormal engine indications, so they decided to return to the departure airport.
**ACN: 1496047** (12 of 50)

**Time / Day**
- Date: 201711
- Local Time Of Day: 1201-1800

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

**Environment**
- Flight Conditions: VMC
- 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
- Nav In Use: FMS Or FMC
- Flight Phase: Takeoff
- Airspace.Class B: ZZZ

**Person : 1**
- Reference: 1
- Location Of Person.Aircraft: X
- Location In Aircraft: Flight Deck
- Reporter Organization: Air Carrier
- Function.Flight Crew: First Officer
- Function.Flight Crew: Pilot Flying
- Qualification.Flight Crew: Air Transport Pilot (ATP)
- Experience.Flight Crew.Type: 9010
- ASRS Report Number.Accession Number: 1496047

**Person : 2**
- Reference: 2
- Location Of Person.Aircraft: X
- Location In Aircraft: Flight Deck
- Reporter Organization: Air Carrier
- Function.Flight Crew: Pilot Not Flying
- Function.Flight Crew: Captain
- Qualification.Flight Crew: Air Transport Pilot (ATP)
- Experience.Flight Crew.Type: 9630
- ASRS Report Number.Accession Number: 1496064

**Events**
There was no weather or bird activity reported in the area. Previous aircraft that departed did not report any birds in the vicinity of the airport. We began the takeoff roll in VFR conditions. At positive climb rate I called for gear up. Shortly after the gear came up and at approximately 800 feet AGL, I heard a loud bang and felt a slight yaw to the left. Auto pilot was not engaged and the auto throttle was engaged. No rudder input was required to maintain our flight path. I immediately scanned the engine instruments to verify that they were both operating normally. No abnormal engine indications were noted, and the plane was flying normal. Both the Captain and I noticed a burnt smell in the aircraft and assumed we had a bird strike. The Captain [advised ATC] and requested vectors for an immediate return to the airport. Tower informed us that they saw smoke come from the engine, but seemed to be normal. We were directed to climb to 4000 feet and vectored for a left downwind. All indications were normal and the aircraft was handling normally.

Once the autopilot was engaged, the Captain accomplished the after takeoff checklist, and I programmed the FMC for our return. I also sent the divert message to notify the company of our planned return. I called for the approach descent checks and briefed the visual backed up by the ILS. We discussed the possibility of losing the number 1 engine on final and the possibility of using flaps 15 for a single engine landing. On our base leg, I called for the approach checklist as we started to descend. Once on final, I called for gear down and flaps 15 and the landing checklist. Prior to the final approach fix, I called for flaps 30. The landing was normal. Tower directed us to contact ramp. We asked for the fire trucks to see if there were any visual indications of damage to the number 1 engine. They reported no issues, and followed us [to] the gate. I accomplished the after landing flow and the Parking checklist.

Once at the gate, the Captain remained in the flight deck to accomplish the maintenance write up for the bird strike and overweight landing. I walked out to the ramp to inspect the number 1 engine and noticed the bird strike at the 10 o'clock position.

I believe we handled the event appropriately and safely. Although there was no apparent damage to the engine, I believe our return to the airport was prudent.

[Report narrative contained no additional information.]
B737NG flight crew reported returning to departure airport after experiencing a bird strike at 800 feet AGL on initial climb.
ACN: 1495522 (13 of 50)

**Time / Day**
- Date: 201711
- Local Time Of Day: 1801-2400

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

**Environment**
- Light: Night

**Aircraft**
- Reference: X
- ATC / Advisory
  - TRACON: ZZZ
- Aircraft Operator: Air Carrier
- Make Model Name: Regional Jet 700 ER/LR (CRJ700)
- Crew Size.Number Of Crew: 2
- Operating Under FAR Part: Part 121
- Flight Plan: IFR
- Mission: Passenger
- Flight Phase: Descent
- Airspace.Class E: ZZZ

**Person : 1**
- Reference: 1
- Location Of Person
  - Aircraft: X
- Location In Aircraft: Flight Deck
- Reporter Organization: Air Carrier
- Function
  - Flight Crew: First Officer
- Function
  - Flight Crew: Pilot Flying
- Qualification
  - Flight Crew: Air Transport Pilot (ATP)
- ASRS Report Number.Accession Number: 1495522

**Person : 2**
- Reference: 2
- Location Of Person
  - Aircraft: X
- Location In Aircraft: Flight Deck
- Reporter Organization: Air Carrier
- Function
  - Flight Crew: Captain
- Function
  - Flight Crew: Pilot Not Flying
- Qualification
  - Flight Crew: Air Transport Pilot (ATP)
- ASRS Report Number.Accession Number: 1495662

**Events**
- Anomaly
  - Inflight Event / Encounter: Bird / Animal
- Detector
  - Person: Flight 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 at 7,000 ft and 210 knots at night and a bit more than 20 miles from [destination]. I saw a quick flash of what I could make out to be a number of birds, as they passed through the beam of the landing light, just a millisecond before they hit. We felt the impact but was only a small vibration. Immediately after the impact, we got a Duct Mon Fault and Anti-Ice Fault message. The Captain called the flight attendants right away, so that they knew what had happened. However, we did not inform ATC, as there was no issue with the aircraft and we figured it was too far out to be an airport hazard to other aircraft. Upon landing the Captain called maintenance and we both went out to look at the damage. It was at this point that we realized the damage was quite extensive, with multiple impacts along the wing and wing root.

The threat was that the damage could have been worse and had a possible effect on the aerodynamics as we slowed.

This was not a preventable situation but in the future, if it happen again, I will inform ATC. This way they have the information and may use it however they wish. Also, it may be good in this situation in the future, to ask the flight attendant, if they can see any damage to the wings, so that we can better evaluate the extent of the damage.

Narrative: 2
[We believe the type of birds to be] migratory geese.

Synopsis
CRJ-700 flight crew reported damage to the left wing from an encounter with migratory geese at 7,000 ft.
ACN: 1490666 (14 of 50)

**Time / Day**
- Date: 201710
- Local Time Of Day: 1201-1800

**Place**
- Locale Reference: ATC Facility: ZZZ.ARTCC
- State Reference: US
- Altitude.MSL.Single Value: 41000

**Environment**
- Light: Daylight

**Aircraft**
- Reference: X
- ATC / Advisory.Center: ZZZ
- Aircraft Operator: Air Carrier
- Make Model Name: B737-700
- Crew Size.Number Of Crew: 2
- Operating Under FAR Part: Part 121
- Flight Plan: IFR
- Mission: Passenger
- Flight Phase: Cruise
- Airspace.Class A: ZZZ

**Component**
- Aircraft Component: Hydraulic System
- Aircraft Reference: X
- Problem: Malfunctioning

**Person : 1**
- Reference: 1
- Location Of Person.Aircraft: X
- Location In Aircraft: Flight Deck
- Reporter Organization: Air Carrier
- Function.Flight Crew: First Officer
- Function.Flight Crew: Pilot Flying
- Qualification.Flight Crew: Air Transport Pilot (ATP)
- Experience.Flight Crew.Type: 7000
- ASRS Report Number.Accession Number: 1490666
- Human Factors: Distraction
- Human Factors: Human-Machine Interface
- Human Factors: Troubleshooting
- Human Factors: Workload

**Person : 2**
- Reference: 2
- Location Of Person.Aircraft: X
- Location In Aircraft: Flight Deck
Narrative: 1

Approximately 60 miles NE of ZZZ we started seeing an Intermittent Master Caution indication with no abnormal overhead annunciation. We tried the recall, but it did not illuminate anything overhead so we began checking other systems when the Captain displayed the hydraulic quantity indicator, which read approximately 19 percent on the "A" side. He then gave me the radios (I was the Pilot Flying) and attempted to contact Dispatch to see if they would like us to divert to ZZZ. Shortly during this difficult contact procedure (communication issues with Dispatch), the Master Caution light and the "A" Engine Driven Hydraulic Pump light illuminated. We ran the QRH Hydraulic Pump Low Pressure Checklist and turned off the "A" pump.

Dispatch finally advised us to go to ZZZ and we were then given direct to the airport along with a descent from ATC. I began using the speedbrakes to help the descent and we noticed the quantity getting lower so we decided to review the loss of "A" procedure and also agreed to use flaps 15 for landing. Captain received the flaps 15 numbers, we then reviewed the approach and ran the Descent and Approach Checklist. We were cleared direct ZZZZZ for the ILS XXL. Approach informed us they had Fire and Rescue waiting. We decided to drop the gear early when the nose gear failed to extend, Captain manually extended it and successfully indicated down and green.

He then took over as Pilot Flying. Just inside the marker we started losing system A. I got out the QRH, ran the Before Landing Checklist and he gently touched down on [Runway] XXL. The fire trucks were waiting, we decided not to reconfigure and asked them to check for leaks/fumes. They indicated a leak from the nose wheel but no fire or fumes. Our gate was blocked by another aircraft and we both agreed to pull straight ahead to Gate XX. I contacted Ops to advise them and the Firemen guided us in. As I walked around the
aircraft (Maintenance still wasn’t there), the Fire Fighters pointed out a bird in the nose wheel well, which probably happened on takeoff and caused the entire event. Hats off to the Captain! Great job!

**Narrative: 2**

[Report narrative contained no additional information.]

**Synopsis**

B737-700 flight crew reported diverting due to System A hydraulic failure.
ACN: 1490078 (15 of 50)

Time / Day
Date: 201710
Local Time Of Day: 0601-1200

Place
Locale Reference.Airport: SFO.Airport
State Reference: CA
Altitude.MSL.Single Value: 900

Environment
Flight Conditions: VMC
Light: Daylight

Aircraft
Reference: X
ATC / Advisory.Tower: SFO
Aircraft Operator: Air Carrier
Make Model Name: Widebody Transport
Crew Size.Number Of Crew: 2
Operating Under FAR Part: Part 121
Flight Plan: IFR
Mission: Passenger
Flight Phase: Initial Climb
Airspace.Class B: SFO

Component
Aircraft Component: Air Data Computer
Aircraft Reference: X
Problem: Malfunctioning

Person: 1
Reference: 1
Location Of Person.Aircraft: X
Location In Aircraft: Flight Deck
Reporter Organization: Air Carrier
Function.Flight Crew: Captain
Function.Flight Crew: Pilot Flying
Qualification.Flight Crew: Air Transport Pilot (ATP)
Experience.Flight Crew.Total: 21000
Experience.Flight Crew.Last 90 Days: 200
Experience.Flight Crew.Type: 13000
ASRS Report Number.Accession Number: 1490078
Human Factors: Time Pressure
Human Factors: Troubleshooting
Human Factors: Workload
Human Factors: Distraction

Person: 2
After takeoff at about 800 ft and before raising flaps, we struck a flock of approximately 20 birds. We probably hit about 6 of them. Both windscreens were partially obscured and the "Windshear" alert sounded. The birds were spotted just before impact so it was
obvious that we hadn't encountered windshear. After the encounter, the captain's airspeed was showing approximately 80 knots when the standby and First Officer's airspeed read approximately 190 kts. Control of the aircraft was transferred to the First Officer who continued the climb and retracted flaps on schedule. ATC was notified of the bird strike and location. We requested an initial climb to 10,000 ft and advised them there were some systems affected by the bird strike and that we would be working the problem.

The flight directors were not working, and LNAV and VNAV seemed unreliable. The First Officer hand flew the airplane. The autopilot was later engaged as we determined that it worked in "R." The First Officer flew the airplane and handled most of the radio work with the second observer backing him up. The Captain and First Observer accomplished the "IAS Disagree or Airspeed Unreliable" checklist. This brought back the Captain's airspeed indicators to normal.

An analysis of the aircraft's condition and equipment status was done. The flight directors had biased from view, LNAV was inoperative, the airplane seemed to turn slower than normal, and we did not know what other damage had been done. We request ATC to provide vectors for us to prepare for dumping and used Satcom for conference call with dispatch and maintenance. We did not feel it was safe or wise to continue to destination so began preparation to return to SFO.

The aircraft weight was approximately 830,000 lbs so we dumped approximately 200,000 lbs of fuel to bring weight down to 630,000 lbs in preparation for landing back in SFO. Logbook entries, approach preparation, briefings, and checklists were accomplished during dumping which took approximately 45 mins. The BDEGA 2 arrival and ILS Runway 28R were flown by the captain using the autopilot in HDG SEL and FLCH, then GS and LOC to approximately 1200 ft, then hand flown for landing with Flaps 30.

**Narrative: 2**

At 1000 ft after takeoff, while captain was flying, we hit a flock of geese. Blood momentarily covered windscreen on both sides and aural/EICAS warnings activated. Captain's PFD showed false air data info such as low speed, winds, altitude, vertical speed indicator, and auto throttles were unresponsive. FO instrumentation appeared accurate, and Captain transferred control to him. I worked with Captain on the EICAS messages by checklist while FO and other relief pilot flew and communicated with ATC. After checklist were completed and established in vectored holding pattern, a crew, dispatch, Maintenance Control and aircraft assessment lead Captain to decide that a return to SFO was safest. Communicated to all agencies necessary, crew, and passengers. Uneventful return to base.

**Narrative: 3**

[Report narrative contained no additional information.]

**Synopsis**

Air carrier flight crew reported encountering multiple bird strikes shortly after takeoff from SFO resulting in spurious flight instrument indications. After dumping fuel, a return to the departure airport was safely accomplished.
**Time / Day**
Date: 201709
Local Time Of Day: 0001-0600

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

**Environment**
Flight Conditions: VMC
Weather Elements / Visibility. Visibility: 10
Light: Night
Ceiling.Single Value: 20000

**Aircraft**
Reference: X
ATC / Advisory.CTAF: 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
Mission: Training
Flight Phase: Landing
Flight Phase: Taxi
Route In Use: None
Airspace.Class E: ZZZ

**Person : 1**
Reference: 1
Location Of Person.Aircraft: X
Location In Aircraft: Flight Deck
Reporter Organization: Personal
Function.Flight Crew: Instructor
Function.Flight Crew: Pilot Flying
Qualification.Flight Crew: Multiengine
Qualification.Flight Crew: Air Transport Pilot (ATP)
Qualification.Flight Crew: Flight Instructor
Qualification.Flight Crew: Instrument
Experience.Flight Crew.Total: 17800
Experience.Flight Crew.Last 90 Days: 70
Experience.Flight Crew.Type: 150
ASRS Report Number.Accession Number: 1487708

**Person : 2**
Reference: 2
Location Of Person.Aircraft: X
Location In Aircraft: Flight Deck
Reporter Organization: Personal
I was instructing in a Piper PA28-161 Warrior. My student was making the landing rollout, completing a normal full flap night landing. He made three touch and goes and the full stop was to be our last landing of the evening. No deer were seen during any of the first three landings. Runway lights were on the medium step, and all appeared to be illuminated. The aircraft's beacon, strobes, navigation lights, and nose mounted LED landing light were on and operating throughout the landing roll and at the time of the deer strike.

During landing roll, at approximately mid-field on the 5,000 foot runway, the student had slowed the plane to about 20 mph a small buck deer came into view walking left to right onto the runway 30 yards ahead of us. The student in the left seat applied heavy braking. I took the controls and applied maximum braking and had slowed to about 3 miles per hour. With no way to avoid the deer, we watched as the small buck walked into the idling prop.

Exiting the plane, we found the dead buck laying on its right side about three feet behind the nose wheel and under the inboard portion of the right wing. It appeared as though the propeller struck the deer near the right hindquarters, breaking its back. I would estimate the weight of the animal to be about 75 pounds.

No attempt was made to restart the engine, which died when the prop stopped as it hit the deer. Instead, we completed the shutdown checklist and secured the aircraft. I walked to the hangar and brought a golf cart to the aircraft. After removing the deer carcass from the runway, we towed the aircraft to its hangar with a tow bar and the golf cart.

A precursory inspection in the lighted hangar revealed no visible damage to the propeller, cowling, or nose gear assembly. I stress the visual examination was precursory and in no way equaled a professional assessment by a qualified A&P mechanic. No one was injured.

I was flying with my instructor in a Piper PA28-161 warrior. I was coming back from a night cross-country. I needed to get 5 of my night landings completed. Me and my instructor had already done 3 touch and go's, and to the side and on the runway was
clear, in the dark night of what we could see. All the lights were on at the airport, all the lights on the airplane [were] on. We were coming on our last landing to a full stop on that night. I was right on the glide slope 2 red 2 white and was doing a normal landing. Right when I touched down I applied brakes and pulled back on the controls, so we could taxi-off taxiway Charlie. As we were coming to a stop I saw a little buck deer come from my left to my right, and I said deer, deer! He was trotting along and when he looked into my landing light he stopped.

When I said deer, deer! I applied heavy braking and pulled back on the controls as hard as I could. The brakes locked up and applied the maximum braking. And we locked the brakes and we were stopping quickly. My instructor helped with braking the plane. And we hit the deer about 3 miles an hour with the idling prop. If the deer was 5 feet farther we would of missed him. I maintained control of aircraft as this happened. I maintained the centerline of the runway, I didn't swerve, [and] I kept the plane straight and in control. And when we hit, the idling prop stopped. The first thing that came to my mind was the ELT, and I tuned it to 121.5 MHz, and the ELT didn't go off. We shut everything off except the lights on the aircraft, for safety reasons.

When we got out, the buck was 3 feet behind the wheel, with a broken back. I called the owner of the plane and he was on his way, and the deer, I called the Game Warden, and said I could keep the deer if I cleaned it, which I did. We did not restart the aircraft, and we went through the shutdown checklist, with the lights still on. My instructor went and got the golf cart to tow the plane, and I stayed with it, so if someone came in the pattern, I had my lights on, and I could make a call and say abort landing, and don't land, so we could talk to other pilots to be safe, but no one came into the pattern. We put the deer on the cart and towed the plane back to its hangar, but there was no visual damage to the propeller, cowling, or nose gear assembly. The visual examination was precursory and in no way equaled a professional by a qualified A&P Mechanic. But [neither] the instructor nor I [were] hurt. We both were safe and nothing happened to us.

**Synopsis**

PA28 pilots reported that during landing rollout, a deer walked in front of the aircraft and was struck by the propeller.
ACN: 1481106 (17 of 50)

Time / Day
Date: 201709
Local Time Of Day: 0601-1200

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

Environment
Light: Daylight

Aircraft
Reference: X
Aircraft Operator: Air Carrier
Make Model Name: 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
Flight Phase: Parked

Person
Reference: 1
Location Of Person.Aircraft: X
Location In Aircraft: Flight Deck
Reporter Organization: Air Carrier
Function.Flight Crew: Captain
Function.Flight Crew: Pilot Flying
Qualification.Flight Crew: Air Transport Pilot (ATP)
ASRS Report Number.Accession Number: 1481106
Human Factors: Situational Awareness
Human Factors: Other / Unknown

Events
Anomaly.Flight Deck / Cabin / Aircraft Event: Other / Unknown
Anomaly.Deviation - Procedural: Published Material / Policy
Anomaly.Ground Event / Encounter: Person / Animal / Bird
Detector.Person: Other Person
When Detected: Aircraft In Service At Gate
Result.Genral: Flight Cancelled / Delayed

Assessments
Contributing Factors / Situations: Company Policy
Contributing Factors / Situations: Human Factors
Contributing Factors / Situations: Procedure
Primary Problem: Ambiguous
**Narrative: 1**

Airport customs requires that aircraft departing for an international destination have a pre-departure inspection. The crew is not allowed on the aircraft during the inspection. While waiting at the gate for the inspection to be completed, the gate agent came out of the gateway followed by several people in business dress. Well within hearing distance of the passengers, the gate agent said Captain I am required to inform you that while cleaning the cockpit, the cleaning crew saw a snake under the captain's pedals. The snake got away and they have not been able to find it. I am required to tell you this.

At this time, the inspection was complete and I was allowed on the aircraft. I found two mechanics in the flight deck. I was informed that they had not been able to find the snake and they were not able to say with certainty what species of snake it was. The logbook had not been notated with a write up. I placed a write up in the book. I was also getting a line check on this flight. The check airman told me that his father was deathly afraid of snakes and suggested that some passengers on the flight may suffer with the same conditions.

I contacted dispatch and discussed with them that I was uncomfortable taking the aircraft with an unknown reptile condition. The dispatcher agreed there was an unknown condition in the aircraft and the possibility that a snake could expose itself in flight or worse on the approach come out from under the rudder pedals. Dispatch agreed with my position.

The gate agent then asked to board the aircraft. I said no, as we might be changing aircraft. I then contacted the Chief Pilot. I explained the situation and told him I was uncomfortable flying the aircraft without determining what the condition of the snake was. I had specifically asked if the cleaning crew had really had seen a snake? I was informed yes, that they had tried to vacuum it up and it had slithered away. The Chief Pilot agreed with me and told me he would have a new aircraft for us in five minutes. We were assigned the aircraft at the gate next door.

The aircraft had to go through an international departure inspection. It took about forty-five minutes to get the inspection done. During that time, the tower called twice. There were no gate agents so I answered the phone. The first time the agent said, "We got you a new aircraft are you going to board?" I said we were standing around twiddling our thumbs waiting for an international departure inspection. The second inspection was a different person who identified himself as a manager. He had the same aggressive attitude and asked if we were going to board. I replied the same response. He hung up the phone. The inspection was finally completed, we boarded and departed one hour late.

During this process, I felt pressured by the tower personnel to board and take an aircraft in an unknown safety condition. I also felt that if I had not placed the write-up in the book the tower would have tried to ignore the condition of the aircraft and the possible safety issue if a snake had exposed itself in flight. Unconfirmed when I returned, I asked a gate agent what had happened to the "snake airplane". I was told the aircraft was left in service and the next Captain had been asked to sign some type of form stating he was informed the snake had not been found.

**Synopsis**

Air Carrier Captain reported that a cleaning crew saw a snake under the Captain's rudder pedals and was unable to capture it. The aircraft was rejected.
ACN: 1480719 (18 of 50)

Time / Day
Date: 201709
Local Time Of Day: 0601-1200

Place
Locale Reference.Airport: ZZZ.Airport
State Reference: US
Altitude.MSL.Single Value: 2000

Environment
Flight Conditions: Mixed
Weather Elements / Visibility: Visibility: 8
Light: Daylight
Ceiling: Single Value: 2000

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
Airspace.Class B: ZZZ

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

Person: 1
Reference: 1
Location Of Person.Aircraft: X
Location In Aircraft: Flight Deck
Reporter Organization: Air Carrier
Function.Flight Crew: Captain
Function.Flight Crew: Pilot Flying
Qualification.Flight Crew: Air Transport Pilot (ATP)
Experience.Flight Crew.Type: 8000
ASRS Report Number.Accession Number: 1480719

Person: 2
Reference: 2
Location Of Person.Aircraft: X
Location In Aircraft: Flight Deck
Reporter Organization: Air Carrier
Function.Flight Crew : First Officer
Function.Flight Crew : Pilot Not Flying
Qualification.Flight Crew : Air Transport Pilot (ATP)
Experience.Flight Crew.Last 90 Days : 120
Experience.Flight Crew.Type : 5200
ASRS Report Number.Accession Number : 1480743

Events
Anomaly.Aircraft Equipment Problem : Less Severe
Anomaly.Inflight Event / Encounter : Bird / Animal
Detector.Person : Flight Crew
Were Passengers Involved In Event : N
When Detected : In-flight
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
Primary Problem : Environment - Non Weather Related

Narrative: 1
After takeoff, we had just retracted the landing gear and were accelerating when, at the last second, I saw a black dot ahead of us in our turn left to a 200 heading. It appeared to be a bird. I tried to pull the nose up to climb above it, but it wheeled up, put its brakes on by pulling its wings back and then dropped off to the right. It entered our right engine and we immediately had a loud buzzing noise along with engine vibration at about 3.5 to 4 on the number 2 engine. I checked the engine N1s and N2s and the engine was still rotating, but the vibration continued unchecked. My First Officer and I discussed the parameters as I initially thought to call for the severe damage checklist, but instead elected to call for the engine vibration checklist as the engine was still running.

After retarding the throttle to idle, the vibrations subsided. I elected to keep the engine running, but land configured for a single engine landing with flaps at 15 just in case the engine failed at any point. Landing and rollout were uneventful. I shut down number 2 engine after landing and had the fire trucks check out our number 2 engine for leaks or damage and clear us to taxi. At the gate, the damage to the fan blades on the rotor was apparent.

Narrative: 2
We elected to return to the airport for landing.

Synopsis
B737-700 flight crew reported a bird strike after takeoff which resulted in damage to the right engine and return to departure airport.
**ACN: 1473349 (19 of 50)**

**Time / Day**

Date: 201708

**Place**

Locale Reference.Airport: EWR.Airport
State Reference: NJ
Altitude.MSL.Single Value: 6000

**Environment**

Flight Conditions: VMC

**Aircraft : 1**

Reference: X
ATC / Advisory.TRACON: N90
Aircraft Operator: Air Carrier
Make Model Name: B757 Undifferentiated or Other Model
Crew Size.Number Of Crew: 2
Operating Under FAR Part: Part 121
Flight Plan: IFR
Mission: Passenger
Flight Phase: Final Approach
Route In Use: Visual Approach
Airspace.Class B: EWR

**Aircraft : 2**

Reference: Y
Make Model Name: Any Unknown or Unlisted Aircraft Manufacturer
Airspace.Class B: EWR

**Person**

Reference: 1
Location Of Person.Aircraft: X
Location In Aircraft: Flight Deck
Reporter Organization: Air Carrier
Function.Flight Crew: Captain
Function.Flight Crew: Pilot Flying
Qualification.Flight Crew: Air Transport Pilot (ATP)
Experience.Flight Crew.Type: 550
ASRS Report Number.Accession Number: 1473349
Human Factors: Workload
Human Factors: Communication Breakdown
Human Factors: Distraction
Human Factors: Situational Awareness
Communication Breakdown.Party1: Flight Crew
Communication Breakdown.Party2: ATC

**Events**
Anomaly.Conflict : NMAC
Anomaly.Inflight Event / Encounter : Bird / Animal
Detector.Person : Flight Crew
When Detected : In-flight
Result.Flight Crew : Returned To Clearance
Result.Flight Crew : Took Evasive Action

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

Narrative: 1
We had a bird strike at 6000 ft just to preface this event. Was given a descent to 2000 ft and slow to 170 knots, then told to follow a company 737 for a visual approach to 4R. Then a frequency change to tower frequency. Before we could check in with tower, and as we were leveling at 2000 ft, we got a TRAFFIC, TRAFFIC. I looked at the TCAS and showed an aircraft at 500 ft below us and climbing (almost directly below our position slightly to the left on the 10 mile scale) then within a second we got a CLIMB, CLIMB and the red envelope had a very aggressive climb (not like the small climbs in the SIM for training), I clicked off the autopilot and auto throttles and pitched to climb outside of the red box. I glanced at the TCAS as it showed the other aircraft at 300 feet. After climbing to about 2800 feet we got a CLEAR OF CONFLICT. The FO (First Officer) switched back to approach and told them we had just performed an RA maneuver for traffic. ATC said something to the effect that, oh yeah, there's Aircraft Y there at 1800 ft but I am not talking to him, and said something about that being a tower thing. We continued the visual approach to 4R and landed without further incident.

Synopsis
B757 pilot reported a TCAS RA on final with an aircraft that the tower knew about but did not issue as traffic.
ACN: 1468377 (20 of 50)

**Time / Day**
- Date: 201707
- Local Time Of Day: 0601-1200

**Place**
- Locale Reference: Airport: DCA.Airport
  - State Reference: DC
  - Altitude: AGL.Single Value: 0

**Environment**
- Flight Conditions: VMC

**Aircraft**
- Reference: X
- ATC / Advisory: Tower: DCA
- 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: Takeoff

**Person : 1**
- Reference: 1
- Location Of Person: Aircraft: X
- Location In Aircraft: Flight Deck
- Reporter Organization: Air Carrier
- Function: Flight Crew: Captain
- Function: Flight Crew: Pilot Flying
- Qualification: Flight Crew: Air Transport Pilot (ATP)
- ASRS Report Number: Accession Number: 1468377

**Person : 2**
- Reference: 2
- Location Of Person: Aircraft: X
- Location In Aircraft: Flight Deck
- Reporter Organization: Air Carrier
- Function: Flight Crew: Pilot Not Flying
- Function: Flight Crew: First Officer
- Qualification: Flight Crew: Air Transport Pilot (ATP)
- Experience: Flight Crew: Total: 7150
- ASRS Report Number: Accession Number: 1468393

**Events**
- Anomaly: Aircraft Equipment Problem: Less Severe
- Anomaly: Inflight Event / Encounter: Bird / Animal
- Detector: Person: Flight Crew
When Detected: In-flight
Result: Flight Crew: Diverted
Result: Flight Crew: Landed in Emergency Condition

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

Narrative: 1
We had a bird strike at rotation taking off Runway 19 at DCA. The bird hit the radome and the Captain's windshield. On climb out there was a loud squeal and we suspected a window seal leak. We [advised ATC of the situation] and with Captain's authority, landed overweight. We followed the appropriate QRH procedures. The landing was normal, touchdown was less than 50 feet per minute and we weighed 147,000 pounds. A bird strike form has been submitted. The Aircraft Maintenance Log (AML) was filled out appropriately and addressed by maintenance, no damage was found.

Narrative: 2
Takeoff from DCA Runway 19, just after rotation we had a single thump on the airframe and noticed a large bug splat on the Captain's forward windscreen close to the center line. We concluded it was a bird strike, no other indications noticed. The Captain continued the climb and clean up with no problems until reaching roughly 4,000 feet where a very loud squeal was heard. We assumed a window seal had been compromised and under Captain's Authority decided to [advise ATC of the situation] and divert. Speed never exceeded 250 and altitude no higher than 5,000. Aircraft maintained pressurization throughout. We did notice the squeal decreased and ceased at less than 1.4 differential PSI (3,500 feet). Appropriate QRH checklists were accomplished. We landed overweight at 147,000 with less than 60 feet/minute [on the] Vertical Speed Indicator (VSI) on touchdown, 30 flaps, brakes 1 and rolled long to prevent overheating brakes. Crash and rescue met us on just off the runway for inspection of airframe and brakes. No issues. Bird strike form submitted.

Synopsis
B737-800 crew reported a bird strike on departure from DCA which resulted in a loud squeal and a diversion.
**ACN: 1467539 (21 of 50)**

**Time / Day**
- Date: 201707
- 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: MD-80 Series (DC-9-80) Undifferentiated or Other Model
- Crew Size.Number Of Crew: 2
- Operating Under FAR Part: Part 121
- Flight Plan: IFR
- Mission: Passenger
- Flight Phase: Takeoff

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

**Person**
- Reference: 1
- Location Of Person.Aircraft: X
- Location In Aircraft: Flight Deck
- Reporter Organization: Air Carrier
- Function.Flight Crew: Pilot Flying
- Qualification.Flight Crew: Air Transport Pilot (ATP)
- ASRS Report Number.Accession Number: 1467539
- Human Factors: Situational Awareness

**Events**
- Anomaly.Aircraft Equipment Problem: Less Severe
- Anomaly.Flight Deck / Cabin / Aircraft Event: Smoke / Fire / Fumes / Odor
- Anomaly.Inflight Event / Encounter: Bird / Animal
- Detector.Automation: Aircraft Other Automation
- Detector.Person: Flight Crew
- Detector.Person: Flight Attendant
- When Detected: In-flight
- Result.Flight Crew: Returned To Departure Airport
- Result.Flight Crew: Landed in Emergency Condition
- Result.Flight Crew: Landed As Precaution
- Result.Aircraft: Aircraft Damaged

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

Narrative: 1
At rotation on takeoff we had a surge on left engine with a loud bang. The EPR (Engine Pressure Ratio) dropped to approx. 1.60 then returned to normal with a brief MC (Master Caution) light. All 3 FAs called and said "we have a real bad odor with smoke" We then [advised ATC] and returned to [the departure airport]. Also a deadheading pilot told a FA that we might have a blown tire. We really didn't know what we had. The tower had had the runway checked for debris. It was clean. After landing the aircraft was checked out then we taxied to gate. It was an overweight landing 140,000 lbs. The post flight walk around showed signs of bird remains in left engine. FAs did a great job and the passengers seemed to be in good spirits.

Synopsis
MD80 pilot reported a bird strike on rotation that led to engine surges, odor, and smoke in the cabin.
Narrative: 1

The previous flight leg the airplane experienced a birdstrike landing. Maintenance accomplished a birdstrike inspection per Maintenance Manual. No Maintenance checkcard
was referenced. I asked 2 mechanics to accomplish Maintenance task 5. Afterwards management stated it was an unacceptable delay because General procedures manual allows the maintenance Manual references to be used in lieu of the workcards. True, unbeknownst to me GPM does state this. However, General procedures Manual states the workcard takes "precedence" when "conflicts" occur between documents. The 737 Maintenance Manual 5 and task card 5 have profound differences.

The question now arises, if a mechanic chooses the Maintenance Manual reference over the workcard, how does he/she know the language of the Maintenance Manual is consistent with the work card. Furthermore, GPM technically allows Maintenance Manual references to be used instead of all common task workcard procedures like towbar disconnect or oil servicing.

**Synopsis**

A Maintenance Technician reported that maintenance took a delay because of the required inspection for a bird strike was not accomplished per work cards.
ACN: 1464212 (23 of 50)

Time / Day

Date: 201707
Local Time Of Day: 1201-1800

Place

Locale Reference.Airport: 4S9.Airport
State Reference: OR
Altitude.MSL.Single Value: 2700

Environment

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

Aircraft

Reference: X
ATC / Advisory.CTAF: 4S9
Make Model Name: Cessna Single Piston Undifferentiated or Other Model
Crew Size.Number Of Crew: 2
Operating Under FAR Part: Part 91
Flight Plan: None
Mission: Training
Flight Phase: Descent
Airspace.Class E: P80

Person

Reference: 1
Location Of Person.Aircraft: X
Location In Aircraft: Flight Deck
Reporter Organization: FBO
Function.Flight Crew: Instructor
Function.Flight Crew: Pilot Not Flying
Qualification.Flight Crew: Instrument
Qualification.Flight Crew: Air Transport Pilot (ATP)
Qualification.Flight Crew: Flight Instructor
Qualification.Flight Crew: Multiengine
ASRS Report Number.Accession Number: 1464212
Human Factors: Communication Breakdown
Communication Breakdown.Party1: Flight Crew
Communication Breakdown.Party2: Flight Crew

Events

Anomaly.Deviation - Procedural: Published Material / Policy
Anomaly.Deviation - Procedural: FAR
Anomaly.Inflight Event / Encounter: Bird / Animal
Detector.Person: Flight Crew
When Detected: In-flight
Result.Flight Crew: Took Evasive Action
Assessments
Contributing Factors / Situations : Airport
Contributing Factors / Situations : Human Factors
Contributing Factors / Situations : Procedure
Primary Problem : Ambiguous

Narrative: 1
Routine Training flight. We followed proper procedures by announcing our position with the intent of performing a simulated engine failure to a touch and go at Mulino airport.

We were on frequency of CTAF and asked if there were any gliders or jumpers at Mulino. No response! A little closer we announced again asking if there was any traffic, jumpers and gliders at Mulino. Again, no response. We climbed to 2700' over Southwest corner of Runway 32 with the intent of performing a simulated engine fail to touch and go.

As we were descending, in our second turn we heard the jump plane pilot say there were open canopies EAST of Runway 32. We looked and saw jumpers between 1800-2000' and on our westbound heading flew NW away from the runway and airport. We were west of runway and jumpers were east of runway. We were scolded by the jump pilot to read the sectional chart. The chart is clearly marked with glider and jump symbology.

What troubles me is that the jump pilot monitors both Approach and CTAF. We were on frequency and announced and heard no reports or follow up jumper advisories. If we were in perceived conflict the Jump pilot can very easily shout out jumper traffic if he is monitoring the CTAF.

The responsibility for see and avoid is on us but advisories for jumpers is additional responsibility for jump school personnel. My suggestion is for the jump pilot to make multiple advisories and have a ground spotter on CTAF who can call out to any aircraft in the pattern who cause a conflict.

Synopsis
GA flight instructor reported being surprised by skydivers while in the pattern at Mulino State Airport after requesting information several times over the CTAF frequency.
ACN: 1463768 (24 of 50)

Time / Day
Date: 201707
Local Time Of Day: 1201-1800

Place
Locale Reference.Airport: ZZZ.Airport
State Reference: US
Altitude.MSL.Single Value: 8000

Environment
Flight Conditions: VMC

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: Normal Brake System
Aircraft Reference: X
Problem: Malfunctioning

Person: 1
Reference: 1
Location Of Person.Aircraft: X
Location In Aircraft: Flight Deck
Reporter Organization: Air Carrier
Function.Flight Crew: Captain
Function.Flight Crew: Pilot Flying
Qualification.Flight Crew: Air Transport Pilot (ATP)
Experience.Flight Crew.Type: 3456
ASRS Report Number.Accession Number: 1463768

Person: 2
Reference: 2
Location Of Person.Aircraft: X
Location In Aircraft: Flight Deck
Reporter Organization: Air Carrier
Function.Flight Crew: Pilot Not Flying
Function.Flight Crew: First Officer
Qualification.Flight Crew: Air Transport Pilot (ATP)
Experience.Flight Crew.Type : 2187
ASRS Report Number.Accession Number : 1463782

Events
Anomaly.Aircraft Equipment Problem : Less Severe
Anomaly.Flight Deck / Cabin / Aircraft Event : Smoke / Fire / Fumes / Odor
Anomaly.Inflight Event / Encounter : Bird / Animal
Detector.Person : Flight Crew
Were Passengers Involved In Event : N
When Detected : In-flight
Result.Flight Crew : Diverted
Result.Flight Crew : Landed As Precaution

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

Narrative: 1
Climbing out of 8000 ft had a bird strike to the right engine. N1 on the right engine had a momentary drop of 10%. Then came back to normal. Very strong dead bird smell in cabin. We [returned] and landed (overweight landing). Taxied off the runway and fire trucks pulled up and said there was no damage. We asked to taxi back to a gate. Aircraft would not move; brakes were locked. Vans were sent out and passengers deplaned via air stairs.

Narrative: 2
Out of an abundance of caution, we selected MAX Autobrakes since ACARS returned a "Flight Not Found" error when Landing Data was requested.

Synopsis
B737 flight crew reported a bird strike on climbout that resulted in momentary power reduction. After an overweight landing, the crew encountered locked brakes.
ACN: 1460855 (25 of 50)

Time / Day
Date: 201706
Local Time Of Day: 1801-2400

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

Environment
Flight Conditions: VMC
Light: Daylight

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
Nav In Use: FMS Or FMC
Flight Phase: Final Approach
Flight Phase: Initial Approach
Airspace.Class B: ZZZ

Component
Aircraft Component: Oxygen System/General
Aircraft Reference: X
Problem: Design

Person: 1
Reference: 1
Location Of Person.Aircraft: X
Location In Aircraft: Flight Deck
Reporter Organization: Air Carrier
Function.Flight Crew: Captain
Function.Flight Crew: Pilot Not Flying
Qualification.Flight Crew: Air Transport Pilot (ATP)
ASRS Report Number.Accession Number: 1460855
Human Factors: Distraction
Human Factors: Situational Awareness
Human Factors: Workload

Person: 2
Reference: 2
Location Of Person.Aircraft: X
On final, shortly after autopilot was disconnected a mosquito appeared in the cockpit. This was a great distraction to my First Officer (FO) who was pilot flying. They repeatedly tried swatting at the mosquito while hand flying the aircraft. I grabbed the rolled up release and smashed the mosquito so that my FO would no longer be distracted. After swatting the mosquito a ding was heard for caution message and the caution switch light illuminated. There was a PAX OX ON message. I instructed the FO to continue the landing. After exiting the runway and completing the after landing check I instructed to the FO to speak with the Flight Attendant (FA) to assess the situation. We continued to the hold pad since our gate was not open. In the hold pad I spoke with the FA about the passengers and the masks. She informed me that no passenger donned the masks as she made an announcement that they had deployed in error. Once our gate opened we taxied over and deplaned the passengers. All passengers appeared in good spirits despite the wait in the hold pad and the masks. I notified Maintenance of the deployment and they arrived at the aircraft. I informed them of what occurred and showed them that the guard did not function properly to protect the switch from inadvertent activation.

The cause of this event was the distraction caused by the mosquito in the cockpit and the failure of the switch guard on the passenger oxygen switch.

More training or awareness that this switch guard failure is a known issue and to avoid the switch as much as possible or refit or repair those guards which do not function properly.

Narrative: 2
During the final approach phase as the Pilot Flying I identified a mosquito in my field of view. It is my understanding that the Pilot Monitoring attempted to remove the Mosquito from my field of view. During this attempt, the Guarded Passenger oxygen mask switch was inadvertently contacted issuing a single chime followed by a yellow master caution 'Pass Oxy on'. We continued without incident given the nature of time associated with the threat. Captain notified Maintenance on landing.

The cause of the event is the Crew's untimely handling of removing the mosquito from the field of view.

Follow Company SOPs to avoid participating in activities or resolving issues in the cockpit while in the approach phase of flight unless such issues become a flight risk or pose a safety risk to any or all persons on board.

**Synopsis**

CRJ 200 flight crew reported accidentally deploying the passengers oxygen masks after being distracted by a mosquito in the cockpit.
Time / Day
Date: 201706
Local Time Of Day: 1201-1800

Place
Locale Reference.Airport: ZZZ.Airport
State Reference: US
Altitude.AGL.Single Value: 800

Environment
Flight Conditions: VMC

Aircraft
Reference: X
ATC / Advisory.Tower: ZZZ
Aircraft Operator: Air Carrier
Make Model Name: A319
Crew Size.Number Of Crew: 2
Operating Under FAR Part: Part 121
Flight Plan: IFR
Mission: Passenger
Flight Phase: Climb

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

Person
Reference: 1
Location Of Person.Aircraft: X
Location In Aircraft: Flight Deck
Reporter Organization: Air Carrier
Function.Flight Crew: Captain
Function.Flight Crew: Pilot Flying
Qualification.Flight Crew: Air Transport Pilot (ATP)
ASRS Report Number.Accession Number: 1458832

Events
Anomaly.Aircraft Equipment Problem: Critical
Anomaly.Inflight Event / Encounter: Bird / Animal
Detector.Person: Flight Crew
When Detected: In-flight
Result.Flight Crew: Inflight Shutdown
Result.Flight Crew: Landed As Precaution
Result.Flight Crew: Returned To Departure Airport
Result.Flight Crew: Landed in Emergency Condition

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

**Narrative: 1**

Takeoff gross weight of 138,XXX. Weather was scattered / broken clouds, winds 240 12G19, temperature 30c. The Captain was the flying pilot and briefed all required items for the departure including engine failure according to [Company] standards and SID engine failure procedures.

Tower cleared us for takeoff and gave no indication of any bird activity in the area. We both visually cleared the runway environment to include the departure path and no signs of any bird activity. Normal FLEX takeoff procedures and landing gear retraction. At 800 ft AGL during takeoff we saw a group of 3 very large birds pass the left side and impact the aircraft and the Number 1 engine. From the impact noise and excessive vibration from the Number 1 engine, it was apparent catastrophic engine failure. Engine Number 1 had ingested at least 1 bird and possibly impacted others on the aircraft.

The FO immediately announced Number 1 engine failure, loss of thrust, and EGT overtemp. The Captain commanded for ECAM ACTION and continued the climb to 1000 AGL / 1900 MSL. Following the ECAM directing engine shutdown and securing the engine, the mishap engine continued with loud vibrating / grinding noise. Because of this excessive noise / vibration and unsure about the condition of the wing we elected not to retract the flaps and to maintain VFR flying conditions. This required that we deviate from the published engine failure procedures and turned north heading 360 degrees in order to maintain VFR and the airfield in visual range.

Once stable northbound the loud vibration continued even though the Number 1 engine had successfully shut down. We decided we needed to land ASAP and not continue with more checklist procedures and impending IMC conditions. We started the APU decided on flaps 3 for landing configuration. The FO informed tower we were an emergency aircraft and needed an immediate landing runway. Tower gave clearance for any runway we needed. Because of aircraft slow performance and unknown damage we elected for a wide shallow base turn to final. The only information we were able to give the flight attendants and passengers during the final approach was "prepare for immediate landing". The loud impact and excessive vibration made it apparent to all passengers something catastrophic had happened.

Tower was informed of all emergency specifics and told we would be stopping on the runway and shut down. Final approach and landing was as planned and completed without further incident. The aircraft was stopped [on the runway]. We gave the passengers "remain seated" announcement and finished all checklists. We received the fire department report saying no other external hazards exist except the engine damage. The passengers were then informed that all was safe and to remain seated until we return to the gate. We kept the APU running to keep air conditioning and informed Operations we wanted to be towed back to the gate.

This flight and all procedures were followed professionally in accordance with all company and safety directives. The flight attendants were particularly instrumental ensuring the safety of all passengers with the little information they were given.

**Synopsis**
A319 Captain reported returning to departure airport after birds were ingested into Number 1 engine shortly after takeoff, resulting in catastrophic engine failure.
ACN: 1455601 (27 of 50)

Time / Day
Date: 201706
Local Time Of Day: 0001-0600

Place
Locale Reference.Airport: ZZZ.Airport
State Reference: US
Altitude.AGL.Single Value: 200

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: Initial Climb
Flight Phase: Takeoff
Airspace.Class B: ZZZ

Person: 1
Reference: 1
Location Of Person.Aircraft: X
Location In Aircraft: Flight Deck
Reporter Organization: Air Carrier
Function.Flight Crew: Captain
Function.Flight Crew: Pilot Flying
Qualification.Flight Crew: Air Transport Pilot (ATP)
ASRS Report Number.Accession Number: 1455601

Person: 2
Reference: 2
Location Of Person.Aircraft: X
Location In Aircraft: Flight Deck
Reporter Organization: Air Carrier
Function.Flight Crew: First Officer
Function.Flight Crew: Pilot Not Flying
Qualification.Flight Crew: Air Transport Pilot (ATP)
ASRS Report Number.Accession Number: 1455593

Events
Anomaly.Aircraft Equipment Problem: Less Severe
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
Result. Flight Crew: Landed As Precaution

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

Narrative: 1
[After takeoff, at] approximately 200 feet [AGL] we hit birds. We ingested them into the right engine.

There was an immediate noise, slight yaw, erratic N1,N2 and associated engine instruments for a brief second (on the right engine) before they stabilized.

The Pilot Monitoring and I (Flying Pilot) then noticed a burning smell. We agreed that returning to [departure airport] was the best course of action.

The Captain notified the Flight Attendants, who heard the noise and also smelled the burnt feathers in the cabin, that we were returning. The engine was performing normally at this time, [I advised] that we would return to [departure airport], stop on the runway while we were inspected by the local emergency ground personnel and then return to the gate.

We notified Ramp/Operations to coordinate a new gate, finished the after take-off climb check, then started and completed the before landing checklist. We were below max landing weight. Actual weight was 141,300.

Landing was uneventful, we coordinated with AARF to secure the right engine for inspection. They followed us to the gate where passengers deplaned and maintenance took the plane out of service.

Narrative: 2
[Report narrative contained no additional information.]

Synopsis
B737-800 flight crew reported returning to departure airport after ingesting birds into the right engine.
ACN: 1453118 (28 of 50)

**Time / Day**
- Date: 201706
- Local Time Of Day: 0001-0600

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

**Environment**
- Flight Conditions: VMC

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

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

**Person: 1**
- Reference: 1
- Location Of Person.Aircraft: X
- Location In Aircraft: Flight Deck
- Reporter Organization: Air Carrier
- Function.Flight Crew: Captain
- Function.Flight Crew: Pilot Flying
- Qualification.Flight Crew: Air Transport Pilot (ATP)
- ASRS Report Number.Accession Number: 1453118

**Person: 2**
- Reference: 2
- Location Of Person.Aircraft: X
- Location In Aircraft: Flight Deck
- Reporter Organization: Air Carrier
- Function.Flight Crew: First Officer
- Function.Flight Crew: Pilot Not Flying
- Qualification.Flight Crew: Air Transport Pilot (ATP)
Experience. Flight Crew. Total : 2534
Experience. Flight Crew. Type : 1606
ASRS Report Number. Accession Number : 1453122

Events

Anomaly. Aircraft Equipment Problem : Critical
Anomaly. Inflight Event / Encounter : Bird / Animal
Detector. Person : Flight Crew
When Detected : In-flight
Result. Flight Crew : Landed in Emergency Condition
Result. Flight Crew : Returned To Departure Airport

Assessments

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

Narrative: 1

We had just gotten airborne off of runway XYL at ZZZ. We were climbing to 400 feet to begin our assigned turn to the south. As we were preparing to turn we saw a flock of birds approaching our track. We called out the birds and were initiating the turn when we heard several impacts, and the number 2 engine rolled back slightly and redlined. I rolled out and decreased climb rate to speed up and raise the flaps. First Officer (FO) moved heading indicator and verbalized for me to come back to the right to get back on the extended runway centerline. FO notified ATC of engine failure and informed them of our intention to climb out on runway heading. After cleanup, I requested 4000 feet for altitude while we ran checklists. Because of the number 2 engine temperature and popping and banging, FO suggested Engine Fire or Engine Severe Damage checklists, and I agreed. During this period, ATC advised us that people have witnessed flames from the number 2 engine. Checklist was accomplished. We took vectors while we completed it. I also put on the autopilot at some point during this time. I was delayed doing this because initially I had put in incorrect rudder trim. When I looked down and saw what I had done I corrected it and was able to have the aircraft trimmed properly to use the autopilot. We took vectors [and] I turned over the aircraft to the FO so I could brief the approach, talk to the flight attendants and passengers, and advise dispatch. The flight attendants had tried to call several times during the event, but we had ignored those calls to handle the problem. After everyone was informed, we finished up the items for one engine approach and landing. Uneventful single engine approach to runway XXR was flown. We cleared the runway at taxiway T. Fire department looked us over and took some temperature readings. Everything looked okay so we taxied to the gate where many people were waiting for us.

Narrative: 2

We were cleared for takeoff with a tower assigned heading of 180. At approximately 300-400 AGL a flock of Canadian geese flew in front of us. I saw the birds go under the right side of the aircraft. At that point we ingested an unknown numbers of birds. The number 2 engine then had high vibration and popping noises. There was still high N1 rotation but EGT temperature rising rapidly to the overheat position. We then determined we had an engine failure and I pulled out the QRH. At 400 feet I bugged the captain to the runway centerline. I then told the tower we had an engine failure, we were going to take it out runway heading and we would like to run a checklist and get back to them. We cleaned the aircraft up on schedule and set max continuous thrust (The aircraft was is VNAV and did not automatic accelerate to clean maneuvering, I had to select level change and
manually bug VcI). I pulled out the QRH and at that time they advised us that we had flames shooting out the back of the engine. Simultaneously the flight attendants were trying to calls us. Tower handed us off to departure. Departure vectored us back around for an approach.

With the aircraft stable I was able to call back to the Flight Attendants (FA) and advise them we had an engine failure, it was under control and we would be back to them soon. The captain flew and talked to ATC and I ran the Engine severe damage checklist. Once I was done with the checklist the captain engaged the autopilot and handed the aircraft over to me. I flew and talked to ATC while he talked to the FAs, passengers, and dispatch. He then briefed me for and approach to runway XXR. After the brief was completed, I handed the plane back over to him and I completed the one engine inoperative checklist. Approach vectored us for runway XXR and we landed without issue. We cleared the runway and stopped so Airport Rescue and Fire Fighting could examine the general aircraft condition. After they stated they could see no abnormal heat signatures they followed us to [the] gate.

**Synopsis**

B737 flight crew reported an engine failure on takeoff due to a bird strike. After the crew accomplished checklist items, a successful single engine approach and landing was made.
**Time / Day**

Date: 201705
Local Time Of Day: 0601-1200

**Place**

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

**Aircraft**

Reference: X
ATC / Advisory.TRACON: ZZZ
Aircraft Operator: Air Carrier
Make Model Name: A319
Crew Size.Number Of Crew: 2
Operating Under FAR Part: Part 121
Flight Plan: IFR
Flight Phase: Climb
Airspace.Class B: ZZZ

**Component: 1**

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

**Component: 2**

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

**Person**

Reference: 1
Location Of Person.Aircraft: X
Location In Aircraft: Flight Deck
Reporter Organization: Air Carrier
Function.Flight Crew: Pilot Flying
Function.Flight Crew: First Officer
Qualification.Flight Crew: Air Transport Pilot (ATP)
ASRS Report Number.Accession Number: 1452148
Human Factors: Situational Awareness
Human Factors: Troubleshooting

**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: Maintenance Action
Assessments

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

Narrative: 1

I did a preflight on Aircraft X and noted that a previous crew had written up a First Officer (FO) AOA system fault. Maintenance (MX) had tested the systems and returned the aircraft for service. Unbeknownst to us we took a bird strike to the standby pitot tube on takeoff which completely disabled it. My first indication of a problem was that the Flight Director (FD) disappeared and kicked off the Auto Pilot (AP). I took over the Pilot Flying duties and the Captain pulled the QRH for an AP 2 failure. Climbing and accelerating we retracted the flaps on schedule and received the aural stall warning with an associated ALPHA FLOOR and TOGA LOCK scenario. I disconnected the auto throttles and flew the aircraft to a known safe attitude noting the airspeed to be above 200 knots. ATC gave us a climb and we decided to level off at 5000 and troubleshoot further instead. The Captain was busy now with a myriad of ECAMs and I was hand flying the aircraft back on course and noticed the standby airspeed indicating zero and that we were flying in Alternate Law. We included our discussion of the situation with our airbus captain jump seater and were able to reestablish the auto throttle automation but determined we needed to return to ZZZ. The Captain [advised ATC], briefed and set up the aircraft for a visual approach to Runway XYC. We also noted and discussed the implications of putting the gear down and what the timing of that would be. On a downwind I started slowing the aircraft down and called for flaps 1. Again as soon as the pitch changed we got an aural stall warning and TOGA LOCK. I again disconnected the auto throttles and the captain went into the QRH. I asked for an extended downwind for more troubleshooting and the Captain began another reset of Flight Augmentation Computer [FAC] 1 and 2. This time we decided not to reengage the auto throttles and that the best course of action would be to get the aircraft on the ground. I asked ATC for a base turn and lined up on a 10 mile final. Flaps 2 and 3 yielded the same aural stall warning which was now disregarded and we went gear down Direct Law to a normal landing. After engine shutdown we received an ECAM for First Officer AOA system fault and contacted Maintenance.

Post flight inspection revealed a bird strike which completely clogged the standby pitot tube. I believe that the First Officer AOA system was sending bad or missing information to the aircraft. Multiple failures of redundant systems.

Synopsis

A319 First Officer reported that during climb they lost the Flight Director and the Autopilot disconnected due to multiple system failures.
**ACN: 1450291 (30 of 50)**

**Time / Day**
- Date: 201705
- Local Time Of Day: 1201-1800

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

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

**Aircraft**
- Reference: X
- ATC / Advisory.CTAF: ZZZ
- Aircraft Operator: Personal
- Make Model Name: Amateur/Home Built/Experimental
- Crew Size.Number Of Crew: 1
- Operating Under FAR Part: Part 91
- Flight Plan: None
- Mission: Personal
- Flight Phase: Landing
- Route In Use: Direct
- Route In Use: Visual Approach

**Person**
- Reference: 1
- Location Of Person.Aircraft: X
- Location In Aircraft: Flight Deck
- Reporter Organization: Personal
- Function.Flight Crew: Single Pilot
- Qualification.Flight Crew: Private
- Experience.Flight Crew.Total: 1182
- Experience.Flight Crew.Last 90 Days: 4
- Experience.Flight Crew.Type: 1000
- ASRS Report Number.Accession Number: 1450291
- Human Factors: Situational Awareness
- Human Factors: Distraction

**Events**
- Anomaly.Deviation - Procedural: Published Material / Policy
- Anomaly.Ground Event / Encounter: Gear Up Landing
- Anomaly.Inflight Event / Encounter: Bird / Animal
- Detector.Person: Flight Crew
- When Detected: In-flight
- Result.Aircraft: Aircraft Damaged
Assessments
Contributing Factors / Situations : Human Factors
Primary Problem : Human Factors

Narrative: 1

Aircraft is a kit built Europa XS with a single fuselage monowheel and outrigger wheels under each wing. The mainwheel and outriggers are retractable and controlled mechanically by an operating lever in the cockpit. The flaps are linked to the landing gear; they are fully down with the gear down and fully up with the gear up. The aircraft is a tailwheel plane (Vso = 42 kts, Vs1 = 50 kts). The pilot is the aircraft builder. Total time on the aircraft is 998 hours, all flown by the pilot. Pilot was only soul on board.

Approximately 5 miles out, I advised on CTAF that I was entering left crosswind for left downwind for Runway XX. No other aircraft were in the pattern at that time. Advised turning onto left downwind for Runway XX on CTAF. At the Runway XX numbers approximately, I reduced power to descend for the approach. When I reduced power at that point, I normally manually lower the landing gear which is on a swing arm linkage. However, at this moment, I was nearly hit by a vulture which happened to be at that altitude. It was a very close miss and I had to take avoiding action. I believe that this distraction was the reason that I missed my normal action of lowering the gear.

I then advised turning onto left base for Runway XX. Then advised turning onto final for Runway XX. There were 2 aircraft waiting for take-off as I approached. As I flared for landing, the aircraft landed heavily and I found that the gear had not been lowered, the aircraft suffered a corresponding prop strike and the engine stopped. Aircraft came to a stop on the runway. Other than the prop strike, there does not seem to be other significant damage since the stowed mainwheel on the Europa protrudes below the fuselage for approximately half its diameter (Somewhat similar to a DC3). There were no injuries and no leaks of fuel or oil.

RECOMMENDATION: Aircraft should be fitted with an alarm such that when the airspeed falls below 65 knots, an audible alert is sounded to remind pilot to lower the landing gear.

Synopsis
Europa XS pilot reported a gear up landing as a result of being distracted by a near bird strike and the lack of a landing gear warning system.
ACN: 1445021 (31 of 50)

**Time / Day**
- Date: 201705
- Local Time Of Day: 1201-1800

**Place**
- Locale Reference.Airport: ROA.Airport
- State Reference: VA
- Altitude.MSL.Single Value: 13000

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

**Component**
- Aircraft Component: Communication Systems
- Problem: Failed

**Person: 1**
- Reference: 1
- 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)
- ASRS Report Number.Accession Number: 1445021

**Person: 2**
- Reference: 2
- Location Of Person.Aircraft: X
- Location In Aircraft: Flight Deck
- Reporter Organization: Air Carrier
- Function.Flight Crew: Captain
- Qualification.Flight Crew: Air Transport Pilot (ATP)
- ASRS Report Number.Accession Number: 1445024

**Events**
- Anomaly.Aircraft Equipment Problem: Less Severe
- Anomaly.Inflight Event / Encounter: Weather / Turbulence
- Anomaly.Inflight Event / Encounter: Bird / Animal
- Detector.Person: Flight Crew
Assessments
Contributing Factors / Situations : Weather
Primary Problem : Weather

Narrative: 1
We were struck by lightning during descent into ROA at about 13,000. We were told there would be some moderate turbulence and heavy rain. No thunderstorms were forecast and METAR and TAFs all looked acceptable. There were clouds everywhere. Since we only had one pack we could not cruise above 25,000 and this prevented us from flying above the weather. We were asked to descend a bit earlier and started getting vectored around to avoid weather and there wasn't anything noticeable painted on the weather radar and out of nowhere we were struck by lightning. The turbulence was bad and bumpy till touchdown. When I inspected the plane after landing, that's when I realized we also had a bird strike.

Narrative: 2
Radar displayed light to moderate rain. Queried ATC on weather location and intensity. They agreed with our route and headings. We continued our descent to the field; roughly 2 minutes of increasing rain and turbulence up to heavy rain and moderate/heavy turbulence. Once through the worst of it, and it started slacking off a little, we were struck. We lost windshield heat but regained it with a switch reset. We also lost the number one comm system. The RMU was functioning correctly but we were unable to reestablish communications until we used the Number 2 system.

Synopsis
Air carrier flight crew reported being struck by lightning on descent to ROA. Evidence of a bird strike was also noted after landing.
**ACN: 1443851 (32 of 50)**

**Time / Day**
- Date: 201704
- Local Time Of Day: 0001-0600

**Place**
- Locale Reference: ATC Facility: ORD.Tower
- State Reference: IL
- Altitude MSL: Single Value: 4000

**Environment**
- Light: Daylight

**Aircraft : 1**
- Reference: X
- ATC / Advisory: TRACON: C90
- 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
- Airspace: Class B: ORD

**Aircraft : 2**
- Reference: Y
- ATC / Advisory: Tower: ORD
- Aircraft Operator: Air Carrier
- Make Model Name: Medium Transport, Low Wing, 2 Turbojet Eng
- Crew Size, Number Of Crew: 2
- Operating Under FAR Part: Part 121
- Flight Plan: IFR
- Mission: Passenger
- Flight Phase: Climb
- Route In Use: Vectors
- Airspace: Class B: ORD

**Person**
- Reference: 1
- Location Of Person: Facility: ORD.Tower
- Reporter Organization: Government
- Function: Air Traffic Control: Local
- Qualification: Air Traffic Control: Fully Certified
- ASRS Report Number, Accession Number: 1443851
- Human Factors: Situational Awareness
- Human Factors: Communication Breakdown
- Communication Breakdown, Party 1: ATC
- Communication Breakdown, Party 2: ATC
**Events**

Anomaly.ATC Issue : All Types  
Anomaly.Deviation - Procedural : Published Material / Policy  
Anomaly.Ground Event / Encounter : Person / Animal / Bird  
Detector.Person : Air Traffic Control  
When Detected : In-flight  
Result.Flight Crew : Executed Go Around / Missed Approach  
Result.Air Traffic Control : Issued New Clearance

**Assessments**

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

**Narrative: 1**

A departure reported hitting a coyote on Runway 9L resulting in the runway being closed. The following aircraft, Aircraft X, was instructed to execute a missed approach. After coordinating with the Runway 9R controller, I issued an interim 040 heading and climb to 4000 feet followed by a turn to 320 (which was the coordinated heading with 9R). After issuing the final turn, I instructed Aircraft X to contact departure. Following Aircraft X, Aircraft Y was also given missed approach instructions and issued heading 040 to get in trail of Aircraft X. At this time, I noticed Aircraft X had remained on the 040 heading. Aircraft Y was approximately 4 miles behind Aircraft X and nearing the boundary of my airspace and the only other aircraft in the vicinity was not in conflict with either missed approach, so I chose to ship Aircraft Y to departure before coordinating with other local controllers which was done. After coordinating with the departure controller, I learned Aircraft X was instructed to fly 040 and climb to 6000 feet. While this is not standard practice, Aircraft X was out of the tower's airspace so not technically wrong.

Better understanding between ORD Tower and C90 regarding missed approaches and why things are done certain ways would help.

**Synopsis**

ORD Local Controller reported issuing an aircraft a go-around was then issued nonstandard go-around instructions by the Departure Controller.
Time / Day
Date: 201703
Local Time Of Day: 1201-1800

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

Environment
Flight Conditions: Mixed
Weather Elements / Visibility: Visibility: 10
Light: Daylight
Ceiling: Single Value: 3000

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

Component
Aircraft Component: Vertical Stabilizer/Fin
Aircraft Reference: X

Person : 1
Reference: 1
Location Of Person.Aircraft: X
Location In Aircraft: Flight Deck
Reporter Organization: Air Carrier
Function. Flight Crew: Pilot Flying
Function. Flight Crew: Captain
Qualification. Flight Crew: Air Transport Pilot (ATP)
Experience. Flight Crew.Last 90 Days: 150
Experience. Flight Crew.Type: 12000
ASRS Report Number.Accession Number: 1437095

Person : 2
Reference: 2
Location Of Person.Aircraft: X
Location In Aircraft: Flight Deck
Reporter Organization: Air Carrier
Function. Flight Crew: First Officer
Function. Flight Crew: Pilot Not Flying
Events

Anomaly. Inflight Event / Encounter : Bird / Animal
Detector. Person : Ground Personnel
When Detected : Aircraft In Service At Gate
Result. General : Maintenance Action
Result. General : Flight Cancelled / Delayed
Result. Aircraft : Aircraft Damaged

Assessments

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

Narrative: 1

Just before pushback one of our Ramp Agents came into the cockpit and showed me a picture of what he thought was a dent on the vertical stabilizer. I proceeded outside and checked to make sure there was a dent that I was looking at about three by two inches about 40 ft high (1.5 ft below the top of the vertical stabilizer). I called Dispatch and he passed me to Maintenance Control. I reported what was found. Maintenance Control informed me that there was a small dent already reported on that area. I told them this was not small and it looked like there was some damage to the aircraft. They told me to write it up and to call Contract Maintenance. Luckily we had two of our Mechanics at the Station. They came to the aircraft and were able to get close to the dent and take pictures. They called Maintenance and after conference with them they informed me that the checkup was going to take a few hours. I informed the gate agent and Dispatch and the flight was canceled. When and how the dent happened is totally unknown.

Narrative: 2

We swapped into this aircraft. I performed the walk around in moderate rain with overcast clouds. I did not note any defects. While taxiing to the Runway the Controller reported birds near the runway. We did not see any birds, and we reported that to ATC. We flew the first 15 to 30 minutes of the flight in rain. We had a normal landing at destination which was sunny with scattered clouds.

While preparing to leave the gate for our return flight, a Ramp Worker came to the flight deck and reported that he noticed "what appeared to be a hole at the top of the vertical stabilizer." The Captain went outside to inspect the aircraft. He returned, and made a Maintenance writeup for what appeared to be a hole in the leading edge of the vertical stabilizer, approximately 1.5 ft from the top (about 40 ft above the ground). He called Maintenance Control with the writeup.

Company Maintenance Techs happened to be present. They inspected the damage as best as they could, due to the height of the damage, and confirmed repair would be needed. The flight was canceled due to the required maintenance.

Synopsis
B737 flight crew reported they were informed of possible damage near the top of the vertical stabilizer. After maintenance examination, the aircraft was taken out of service.
Time / Day
Date: 201702
Local Time Of Day: 1201-1800

Place
Locale Reference.Airport: ZZZ.Airport
State Reference: US
Altitude.AGL.Single Value: 1500

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

Aircraft
Reference: X
ATC / Advisory.UNICOM: ZZZ
Aircraft Operator: Corporate
Make Model Name: Beechjet 400
Crew Size.Number Of Crew: 2
Operating Under FAR Part: Part 91
Flight Plan: None
Mission: Passenger
Flight Phase: Initial Approach
Route In Use: Visual Approach
Airspace.Class E: ZZZ

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

Person
Reference: 1
Location Of Person.Aircraft: X
Location In Aircraft: Flight Deck
Reporter Organization: Corporate
Function.Flight Crew: Captain
Function.Flight Crew: Pilot Flying
Qualification.Flight Crew: Instrument
Qualification.Flight Crew: Air Transport Pilot (ATP)
Qualification.Flight Crew: Flight Instructor
Qualification.Flight Crew: Multiengine
Experience.Flight Crew.Total: 8000
Experience.Flight Crew.Last 90 Days: 25
Experience.Flight Crew.Type: 3000
ASRS Report Number.Accession Number: 1426769
Human Factors: Workload
Events

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

Assessments

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

Narrative: 1

Had just crossed over midfield getting ready to enter left downwind for at ZZZ (uncontrolled field). Aircraft was level at 1500ft, flaps 20deg, 160kts IAS. Just as I was getting ready to turn downwind I saw a flash go by the left window (what appeared to be a goose from surrounding birds). The bird flew into the left engine causing the N1 to start rolling back. There were no warning lights (oil pressure, hydraulic, etc) as at that time the core of the engine was still running. However due to a bad vibration caused from the strike we had to shut the engine down. We continued in the pattern and landed safely with no issues. Did not declare an emergency (was on Unicom with no other traffic) and didn't roll the trucks as there was no fire (just single engine landing).

Synopsis

BE40 Captain reported a bird strike in the number 1 engine while on downwind at an uncontrolled airport. Landing on one engine was accomplished shortly after.
**ACN: 1417841** (35 of 50)

**Time / Day**
- **Date**: 201701
- **Local Time Of Day**: 1201-1800

**Place**
- Locale Reference.Airport : SMF.Airport
- State Reference : CA
- Altitude.AGL.Single Value : 1000

**Environment**
- Flight Conditions : IMC
- Weather Elements / Visibility : Cloudy

**Aircraft**
- Reference : X
- ATC / Advisory.Tower : SMF
- Aircraft Operator : Air Carrier
- Make Model Name : B737-800
- Crew Size.Number Of Crew : 2
- Operating Under FAR Part : Part 121
- Mission : Passenger
- Flight Phase : Initial Approach
- Airspace.Class C : SMF

**Component**
- Aircraft Component : ILS/VOR
- Aircraft Reference : X
- Problem : Malfunctioning

**Person : 1**
- Reference : 1
- Location Of Person.Aircraft : X
- Location In Aircraft : Flight Deck
- Reporter Organization : Air Carrier
- Function.Flight Crew : Captain
- Function.Flight Crew : Pilot Flying
- Qualification.Flight Crew : Air Transport Pilot (ATP)
- Qualification.Flight Crew : Instrument
- Qualification.Flight Crew : Multiengine
- ASRS Report Number.Accession Number : 1417841
- Human Factors : Communication Breakdown
- Human Factors : Distraction
- Human Factors : Workload
- Communication Breakdown.Party1 : Flight Crew

**Person : 2**
Narrative: 1

This was my fourth approach down to low minimums on this date, which was having microburst alerts and windshear alerts on the departure end. Then reported windshear on takeoff and a special Cat II approach to mins back at [the departure airport].

The third leg to SMF required a CAT III approach, but as we were in the approach the weather started to lift. About 1000 ft. we encountered a flock of between 60-80 geese on a collision course, just as we were trying find an escape route the flock separated and went on both sides of the aircraft.

We continued the approach when at approximately 600 agl I received NO AIII in the hud, at which point we executed a missed approach. As we setup to come back for another approach the weather had risen to CAT I and was getting better. We setup for a CAT I ILS approaching 1000 agl we had more geese to maneuver around, we were stabilized at 1000agl and still vmc.

Not long after the 1000 foot call I saw more geese staying centered on my windshield. I started to maneuver left and high to avoid the geese, after passing the geese I was high and left of course, I started correcting back to course and my FO said I was 2 dots high so I said correcting.
I lower the nose too much and got a SINK RATE - I corrected the sink rate and had the runway in sight. We touched down within the first 1500 ft. I was so focused on the runway and getting back to stabilized approach that my First Officer's call out to go around did not register until just prior to touchdown.

First I feel the stress of avoiding multiple geese strikes caused me to get tunnel vision to establish a stabilized approach and land the airplane safely. My First Officer correctly said 'go around' however in my intense concentration it didn't register. The outcome was a safe landing and no geese strikes, but my correct course of action should have been a go-around.

**Narrative: 2**

[Report narrative contained no additional information.]

**Synopsis**

Boeing 737 flight crew encountered a flock of geese at 1,000ft. The Captain maneuvered to avoid the birds and ended up high and left of the ILS. During his correction, the crew got a sink rate call out and continued to land in an un-stabilized approach condition.
Time / Day
Date: 201701
Local Time Of Day: 0601-1200

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

Environment
Flight Conditions: IMC
Weather Elements / Visibility: Turbulence
Weather Elements / Visibility: Icing

Aircraft
Reference: X
ATC / Advisory.Tower: ZZZ
ATC / Advisory.TRACON: ZZZ
Aircraft Operator: Air Carrier
Make Model Name: B767-300 and 300 ER
Crew Size.Number Of Crew: 2
Operating Under FAR Part: Part 121
Flight Plan: IFR
Flight Phase: Taxi
Flight Phase: Takeoff
Airspace.Class B: ZZZ

Person
Reference: 1
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)
ASRS Report Number.Accession Number: 1415233

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

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

Narrative: 1

Because of the temperature and snow condition we had a hold over time of 10-20 min. We called Dispatch to ask if we could get deiced near the only active runway, but were told we had to use the company deice on the ramp because we don’t have a contract with the ZZZ airport for deicing. We already asked ATC for a closer runway to make hold over time and we were told the only available Runway was XYZ and to expect a lengthy delay. After we began taxi ATC offered us Runway X with no delay but it had not been used for 40 min. We accepted. We had a V1 of 122 and VR of 138. At approximately 125 kts and after the V1 call we saw an extremely large flock of birds on the runway. Estimated at 500-1000 birds, covering the last 6000 feet of runway. They lifted off as we rotated. It sounded like popcorn as we struck dozens of them. The aircraft continued climbing normally and the engines were normal. We contacted Dispatch and did not notice any abnormality. We were told to continue. As we transitioned to high speed/altitude we noticed a severe vibration in both yolks and rudder peddle sets. We advised ATC and returned to ZZZ. Upon landing we noted dozens of bird strikes on the wind screens, pitot tubes, engine inlets, fan blades, flaps, fuselage, gear doors, and bottom of the wings. Maintenance noted feathers in the left engine stator blades. ZZZ ops informed us that the runway was closed after our pirep, no other aircraft departed after us, and wildlife management collected over two dozen dead birds off the runway. If we would have a contract in place to allow us to deice near the runway this incident would never have happened. As a line pilot I’m starting to feel we are shifting to a profit first mentality.

The fact that the company does not have a contract with ZZZ airport for deicing is the driving force in this incident. When the weather is low/snowy the ZZZ airport only uses the XY’s for takeoff. With cold temperatures causing 20 minute maximum holdover times, a taxi can not be made within that time, unless deice would occur closer to the active runway. Stop risking my life by not providing me the tools required to operate safely.

Put safety first, and do what it needed to make sure crews can choose the safest action, by using the active, safest, runway. Stop risking my life to save money. I feel I have the right to know the name of the person who caused this near catastrophic accident. Who decided that we don’t need additional deice capability in a snow prone airport that can have 3+ mile taxis on snow covered taxiways?

Synopsis

B767-300 First Officer reported departing on an unused available runway to avoid exceeding their hold over time. In doing so, the crew encountered a flock of birds and returned to departure airport as a precaution.
ACN: 1409596 (37 of 50)

**Time / Day**
- Date: 201612
- Local Time Of Day: 0601-1200

**Place**
- Locale Reference.Airport: ZZZ.Airport
- State Reference: US
- Altitude.MSL.Single Value: 2500

**Environment**
- Light: Daylight

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

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

**Person**
- Reference: 1
- Location Of Person.Aircraft: X
- Location In Aircraft: Flight Deck
- Reporter Organization: Air Carrier
- Function.Flight Crew: Pilot Flying
- Function.Flight Crew: Captain
- Qualification.Flight Crew: Air Transport Pilot (ATP)
- Experience.Flight Crew.Last 90 Days: 157
- Experience.Flight Crew.Type: 10000
- ASRS Report Number.Accession Number: 1409596

**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 : Landed As Precaution
Result. Flight Crew : Returned To Departure Airport
Result. Aircraft : Aircraft Damaged

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

Narrative: 1
We experienced vibration during climb. We [advised ATC], requested level off, and returned to [departure airport]. At the gate, Maintenance noted bird strike to number 1 engine with major core damage. ATC was a great help.

Synopsis
B737-800 Captain reported returning to the departure airport after noticing vibration in climb. On the ground, Maintenance reported "major core damage" to the #1 engine from a bird strike.
**ACN: 1409294** (38 of 50)

**Time / Day**
- Date: 20161212
- Local Time Of Day: 0601-1200

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

**Environment**
- Light: Daylight

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

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

**Person**
- Reference: 1
- Location Of Person: Aircraft: X
- Location In Aircraft: Flight Deck
- Reporter Organization: Air Carrier
- Function: Flight Crew: First Officer
- Function: Flight Crew: Pilot Not Flying
- Qualification: Flight Crew: Air Transport Pilot (ATP)
- ASRS Report Number: Accession Number: 1409294
- Human Factors: Situational Awareness

**Events**
- Anomaly: Aircraft Equipment Problem: Less Severe
- Anomaly: Flight Deck / Cabin / Aircraft Event: Smoke / Fire / Fumes / Odor
- Anomaly: Inflight Event / Encounter: Bird / Animal
- Detector: Person: Passenger
- Detector: Person: Flight Crew
- When Detected: In-flight
Result.
General: Maintenance Action
Flight Crew: Landed As Precaution
Flight Crew: Returned To Departure Airport

Assessments

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

Narrative: 1

While climbing out, at approximately 2000 MSL, we experienced a loud popping sound, engine and aircraft vibration. Engine number 1 had a slight loss of N1. We noticed a smell, but no smoke. We advised ATC, and requested vectors back. We talked with the Flight Attendants who reported Passengers had seen birds near the number 1 engine and saw sparks coming out of the back of the engine. The Flight Attendants (FA) also reported the smell, but no smoke. We made a PA to the Passengers and returned to the field, where the Captain made an uneventful landing.

Synopsis

B737-800 First Officer reported a possible bird strike at 2,000 feet in the left engine during climb out causing a popping noise and some vibration. An odor is also detected and the crew elected to return to the departure airport.
ACN: 1407062 (39 of 50)

Time / Day
Date: 201612
Local Time Of Day: 1801-2400

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

Environment
Light: Dusk

Aircraft
Reference: X
Aircraft Operator: Air Taxi
Make Model Name: Small Transport, Low Wing, 2 Turboprop Eng
Crew Size.Number Of Crew: 2
Operating Under FAR Part: Part 135
Flight Plan: IFR
Mission: Passenger
Flight Phase: Taxi

Person
Reference: 1
Location Of Person.Aircraft: X
Location In Aircraft: Flight Deck
Reporter Organization: Air Carrier
Function.Flight Crew: Captain
Function.Flight Crew: Pilot Flying
Qualification.Flight Crew: Air Transport Pilot (ATP)
ASRS Report Number.Accession Number: 1407062
Human Factors: Communication Breakdown
Human Factors: Distraction
Human Factors: Situational Awareness
Communication Breakdown.Party1: Flight Crew
Communication Breakdown.Party2: Ground Personnel
Analyst Callback: Attempted

Events
Anomaly.Ground Event / Encounter: Person / Animal / Bird
Detector.Person: Flight Crew
Were Passengers Involved In Event: N
When Detected: Taxi
Result.General: Physical Injury / Incapacitation
Result.General: Flight Cancelled / Delayed
Result.Flight Crew: Returned To Gate
Result.Flight Crew: Became Reoriented

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

Narrative: 1

Taxiing out for first flight out of ZZZ, weed whacking was taking place on the south side of taxiway. Watching to make sure my wing cleared two men mowing a taxi light, I then looked forward to continue the taxi. An instant later I heard a "thump." I then pulled off the taxiway on to the inner ramp area and shut down, assuming I’d hit one the dogs that run around the airport grounds on a regular basis. I was shocked to find a man, face down on the side of the taxiway. His coworkers surrounded him and helped him to his feet. He was standing erect and steady. Knew his name and the date. Apparently not injured badly. I attended to my two revenue passengers returning the aircraft to the main ramp. Secured the aircraft and called [the operations center]. An ambulance was summoned for the injured worker. Our ramp agent, was a non-revenue passenger on the flight and took pictures of the scene. He stated that none of the workers were wearing high visibility vests which I also observed. They seldom have in the past also.

This has been a recurring problem on ZZZ since I first came here. The operation is never NOTAMed on an uncontrolled airfield. The pilots just have to see and avoid people and animals at all times. I don't think the person that collided with my wingtip was one of the men I was watching. I think he must have been stooped down in the grass. The only option to add to safety of the situation would be to stop completely until, hopefully, the workers moved well clear of the taxiway. This is one of the many operational deficiencies that we, the pilot, have to deals with on ZZZ on a daily basis.

Synopsis

While taxiing for takeoff, one wing of a light twin struck a ground worker who was apparently cutting weeds around a taxi light. The pilot stopped and shutdown the aircraft to check on the individual. The individual was face down, but recovered to stand erect, and he knew his name and the date. An ambulance was summoned for the injured worker.
**ACN: 1404878** (40 of 50)

**Time / Day**
- Date: 201611
- Local Time Of Day: 1201-1800

**Place**
- Locale Reference: Airport: BUR
- State Reference: CA
- Altitude: Single Value: 100

**Environment**
- Light: Daylight

**Aircraft**
- Reference: X
- ATC / Advisory: Tower: BUR
- Aircraft Operator: Air Carrier
- Make Model Name: B737 Undifferentiated or Other Model
- Crew Size: Number Of Crew: 2
- Operating Under FAR Part: Part 121
- Flight Plan: IFR
- Mission: Passenger
- Flight Phase: Landing
- Airspace: Class C: BUR

**Person: 1**
- Reference: 1
- Location Of Person: Aircraft: X
- Location In Aircraft: Flight Deck
- Reporter Organization: Air Carrier
- Function: Flight Crew: First Officer
- Function: Flight Crew: Pilot Flying
- Qualification: Flight Crew: Air Transport Pilot (ATP)
- Experience: Flight Crew: Last 90 Days: 208
- ASRS Report Number: Accession Number: 1404878

**Person: 2**
- Reference: 2
- Location Of Person: Aircraft: X
- Location In Aircraft: Flight Deck
- Reporter Organization: Air Carrier
- Function: Flight Crew: Pilot Not Flying
- Function: Flight Crew: Captain
- Qualification: Flight Crew: Air Transport Pilot (ATP)
- Experience: Flight Crew: Last 90 Days: 151
- ASRS Report Number: Accession Number: 1404908

**Events**
Anomaly.ATC Issue : All Types
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 short final (about 100 ft) I saw a flock of birds moving north away from the runway. I mentioned the birds to the Captain and he acknowledged. Since they were moving away I elected to land. As the main landing gear was touching down a flock of birds (not sure if they were the same) flew in front of the aircraft from the north. There were multiple bird strikes to the aircraft to include on my canopy.

I could still see so I kept the Pilot Flying roll and completed the landing roll. We brought the aircraft to a stop and informed the Tower of the bird strikes on the approach end of Runway 08. Tower was surprised and sent out Ops. We pulled into our gate. On inspection of the aircraft we saw multiple bird strikes to include left wing fuselage, and number 2 engine. Ops reported 20 dead pigeons. We contacted Tower by phone as well.

Narrative: 2

Because we were so close to the runway about to flare I thought the First Officer made a good decision not to go around. However, right as we touched down that same flock of birds reversed course and flew right over the runway in our path.

Synopsis

B737 flight crew reported a bird strike with about 20 pigeons while on short final to BUR.
**ACN: 1404256 (41 of 50)**

**Time / Day**
Date: 201611
Local Time Of Day: 1801-2400

**Place**
Locale Reference.Airport: ZZZ.Airport
State Reference: US
Altitude.MSL.Single Value: 2600

**Environment**
Light: Night

**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
Flight Phase: Initial Climb
Route In Use.SID: ZZZ
Airspace.Class D: ZZZ

**Person**
Reference: 1
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)
ASRS Report Number.Accession Number: 1404256

**Events**
Anomaly.Aircraft Equipment Problem: Critical
Anomaly.Inflight Event / Encounter: Bird / Animal
Detector.Person: Flight Crew
Detector.Person: Flight Attendant
When Detected: In-flight
Result.Flight Crew: Returned To Departure Airport
Result.Flight Crew: Landed As Precaution
Result.Aircraft: Aircraft Damaged

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

**Narrative: 1**
When climbing through 2600 ft on our way up to 9000 ft we encountered a flock of geese without warning. Upon impact we had a high engine vibration on the number one engine and the flight attendants reported a foul smell after a bird got sucked into the number 2 pack inlet. We [advised ATC and coordinated a return] with an overweight landing. After landing the emergency trucks inspected the aircraft for damage letting us taxi to the gate.

**Synopsis**

A320 First Officer reported a return to the departure airport after sustaining damage to the #1 engine and #2 pack inlet door.
ACN: 1403252 (42 of 50)

Time / Day
Date: 201611
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

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

Person: 1
Reference: 1
Location Of Person. Aircraft: X
Location In Aircraft: Flight Deck
Reporter Organization: Air Carrier
Function. Flight Crew: First Officer
Function. Flight Crew: Pilot Flying
Qualification. Flight Crew: Air Transport Pilot (ATP)
ASRS Report Number. Accession Number: 1403252

Person: 2
Reference: 2
Location Of Person. Aircraft: X
Location In Aircraft: Flight Deck
Reporter Organization: Air Carrier
Function. Flight Crew: Captain
Function. Flight Crew: Pilot Not Flying
Qualification. Flight Crew: Air Transport Pilot (ATP)
ASRS Report Number. Accession Number: 1403245

Events
Anomaly. Aircraft Equipment Problem: Less Severe
Anomaly. Inflight Event / Encounter: Bird / Animal
Detector. Person: Flight Crew
Assessments

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

Narrative: 1

We were climbing out at about 9000 feet when I saw approximately a half dozen medium sized birds heading toward the windscreen and down the right side of the airplane. One hit right above my head and the others hit some parts of the aircraft on the right. The audible booms were very noticeable as was the obvious pitch sound change coming from the right engine. We immediately received a call from the FAs asking what the loud booms were about. All engine indications appeared normal and within limits. Flight controls were also functioning properly. However, given what we saw, heard, and felt we made an immediate decision to return to [departure airport]. We were given priority handling and landed uneventfully. Upon exterior inspection of the airplane we saw blood stains right over the cockpit window and on the forward, inner wing root, right side. We also saw significant damage done to the right engine cowl and several fan blades.

Narrative: 2

[Report narrative contained no additional information.]

Synopsis

B737-800 flight crew reported returning to departure airport after experiencing multiple bird strikes on departure. After landing "significant damage" was found to the right engine cowl and fan blades.
**ACN: 1401353 (43 of 50)**

**Time / Day**
- Date: 201611
- Local Time Of Day: 0601-1200

**Place**
- Locale Reference: ATC Facility: ZZZ.TRACON
- State Reference: US
- Altitude.MSL.Single Value: 2200

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

**Aircraft**
- Reference: X
- ATC / Advisory: TRACON: ZZZ
- Aircraft Operator: Air Carrier
- Make Model Name: Widebody, 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
- Airspace.Class E: ZZZ

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

**Person: 1**
- Reference: 1
- Location Of Person.Aircraft: X
- Location In Aircraft: Flight Deck
- Reporter Organization: Air Carrier
- Function.Flight Crew: Captain
- Function.Flight Crew: Pilot Flying
- Qualification.Flight Crew: Air Transport Pilot (ATP)
- ASRS Report Number.Accession Number: 1401353

**Person: 2**
- Reference: 2
- Location Of Person.Aircraft: X
- Location In Aircraft: Flight Deck
- Reporter Organization: Air Carrier
- Function.Flight Crew: First Officer
- Function.Flight Crew: Pilot Not Flying
Qualification. Flight Crew: Air Transport Pilot (ATP)
ASRS Report Number. Accession Number: 1401354

Events
Anomaly. Aircraft Equipment Problem: Critical
Anomaly. Deviation - Procedural: Weight And Balance
Anomaly. Inflight Event / Encounter: Bird / Animal
Detector. Person: Flight Crew
When Detected: In-flight
Result. Flight Crew: Inflight Shutdown
Result. Flight Crew: Landed As Precaution
Result. Flight Crew: Returned To Departure Airport
Result. Flight Crew: Landed in Emergency Condition

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

Narrative: 1
We departed [and] were given a right turn to a 125 heading on the climb out. While on climb out at about 2200 ft we had a bird strike in the left engine. We leveled off at 3000 ft and complied with the engine severe damage checklist and secured the engine. We also [advised ATC] and returned for an overweight landing. The landing was smooth and we had no other problems.

Narrative: 2
Next I heard a loud bang and engine vibration. Looking at the engine gauges, I confirmed a left engine failure. I called left engine failure, turned off the auto throttle arm switch, and confirmed MCT (Maximum Continuous Thrust) visually.

Synopsis
Air carrier flight crew reported returning to departure airport due to a bird strike shortly after takeoff that resulted in failure of the left engine.
**ACN: 1400331 (44 of 50)**

**Time / Day**
- Date: 201611
- Local Time Of Day: 0601-1200

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

**Environment**
- Light: Daylight

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

**Person**
- Reference: 1
- Location Of Person: Aircraft: X
- Location In Aircraft: Flight Deck
- Reporter Organization: Air Carrier
- Function: Flight Crew: Pilot Flying
- Function: Flight Crew: First Officer
- Qualification: Flight Crew: Air Transport Pilot (ATP)
- Experience: Flight Crew: Last 90 Days: 136
- Experience: Flight Crew: Type: 3601
- ASRS Report Number: Accession Number: 1400331

**Events**
- Anomaly: Aircraft Equipment Problem: Less Severe
- Anomaly: Ground Event / Encounter: Person / Animal / Bird
- Anomaly: Inflight Event / Encounter: Bird / Animal
- Detector: Person: Flight Crew
- When Detected: In-flight
- Result: General: Maintenance Action
- Result: Flight Crew: Landed As Precaution
- 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**

Boarding, pushback and taxi out to runway were all uneventful. We were cleared for takeoff on Runway XY. I was the Pilot Flying and the Captain was the Pilot Monitoring. Shortly after gear retraction, the Captain said "bird"! As I looked up, I saw a large dark gray bird disappear under the nose. Moments later, there was a loud thump and the number 1 engine vibration gauge began to rise rapidly, while at the same time a vibration was felt and heard by both of us, as well as a strong burning flesh odor coming from the vents. I began to pull the number 1 throttle toward idle.

As the engine N1 was reduced to 30 to 40 percent, the vibration stopped. We continued to climb and cleaned the aircraft up at 1000 feet AGL. When the Captain checked in with Departure Control, he explained that we had ingested a bird and needed to level off around 5000 feet and would need some vectors to complete some items. The Departure Controller gave us vectors to the north and gave us instructions to level off at 6000 feet. We decided to keep the number 1 engine running near idle, as this took away all the vibration and allowed us to keep the services that the engine was still providing (hydraulics, electrics, etc).

I took over ATC communications while the Captain made a PA, talked to the Flight Attendants and to Maintenance, who he asked to relay our situation to Dispatch. He ran the numbers in the Optimum Performance Capable (OPC) and determined we would be landing overweight. I suggested because of our overweight status in an -800 [that we use] the longest runway available.

The Captain advised ATC of our runway request and told them we were ready for vectors back to the airport. Approximately ten miles from the airport, the Captain took over as the Pilot Flying. The approach and landing were smooth and uneventful. We cleared the runway and the fire trucks followed us to the gate, with no indications of fire or fluids leaking.

**Synopsis**

B737-800 First Officer reported returning to departure airport after experiencing increased vibration associated with ingesting a large bird into #1 engine.
ACN: 1399956 (45 of 50)

Time / Day
Date: 201611
Local Time Of Day: 1801-2400

Place
Locale Reference.Airport: ZZZ.Airport
State Reference: US
Altitude.MSL.Single Value: 4000

Environment
Flight Conditions: IMC
Light: Night

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
Airspace.Class B: ZZZ

Person
Reference: 1
Location Of Person.Aircraft: X
Location In Aircraft: Flight Deck
Reporter Organization: Air Carrier
Function.Flight Crew: Captain
Function.Flight Crew: Pilot Flying
Qualification.Flight Crew: Air Transport Pilot (ATP)
ASRS Report Number.Accession Number: 1399956

Events
Anomaly.Aircraft Equipment Problem: Less Severe
Anomaly.Inflight Event / Encounter: Bird / Animal
Detector.Person: Flight Crew
When Detected: In-flight
Result.Flight Crew: Landed As Precaution
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
I was the pilot flying on this leg. We were on the departure route climbing through 4000 feet [and] as I began the left turn I caught a flash of something white out of the front of the aircraft and felt a thump on the nose of the aircraft. We were IMC at the time. First Officer said "What was that?" I replied "Bird Strike!" At that time we got an #2 Engine Stall ECAM that came up, but it immediately went out. [At] this moment all engine parameters appeared normal. We asked ATC for a level off, which we did and leveled off at 6000 ft. We also got a burnt duck smell as well. I handed control over to FO so I could assess the situation. All systems were normal, I scrolled through the system pages to verify this as well. There were no further ECAM messages to deal with.

I [advised] ATC and I briefed the Flight Attendants about returning to [departure airport] and gave them the time to prepare. I then made a PA to the passengers about what we were going to do. I sent a message to Dispatch via ACARS about what was going on. We then briefed the approach. I took back control of the aircraft for the approach and landing because the FO's window was covered [with] the remnants of the bird.

Normal landing and after we stopped the aircraft I instructed the passengers to "Remain Seated" and we asked the emergency response crew to look the aircraft over which they did. We then taxied to the gate. After shutdown at the gate I entered the bird strike into the Aircraft Maintenance Logbook and spoke to the mechanics. We walked around the aircraft and found damage to the radome and the #2 engine.

**Synopsis**

A321 Captain reported returning to the departure airport after experiencing a bird strike on initial climb.
Time / Day
Date: 201610
Local Time Of Day: 1801-2400

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

Environment
Flight Conditions: VMC

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

Component
Aircraft Component: Turbine Engine
Aircraft Reference: X

Person: 1
Reference: 1
Location Of Person.Aircraft: X
Location In Aircraft: Flight Deck
Reporter Organization: Air Carrier
Function.Flight Crew: Captain
Function.Flight Crew: Pilot Flying
Qualification.Flight Crew: Air Transport Pilot (ATP)
Experience.Flight Crew.Total: 20000
Experience.Flight Crew.Last 90 Days: 200
Experience.Flight Crew.Type: 1500
ASRS Report Number.Accession Number: 1394633

Person: 2
Reference: 2
Location Of Person.Aircraft: X
Location In Aircraft: Flight Deck
Reporter Organization: Air Carrier
Function.Flight Crew: First Officer
Function.Flight Crew: Pilot Not Flying
Qualification.Flight Crew: Air Transport Pilot (ATP)
Experience. Flight Crew. Total: 15750  
Experience. Flight Crew. Last 90 Days: 143  
Experience. Flight Crew. Type: 2500  
ASRS Report Number. Accession Number: 1394637

**Events**

Anomaly. Aircraft Equipment Problem: Less Severe  
Anomaly. Inflight Event / Encounter: Bird / Animal  
Detector. Person: Flight Crew  
When Detected: In-flight  
Result. General: Maintenance Action  
Result. Flight Crew: Landed As Precaution  
Result. Flight Crew: Returned To Departure Airport  
Result. Air Traffic Control: Issued New Clearance  
Result. Air Traffic Control: Provided Assistance

**Assessments**

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

**Narrative: 1**

Approximately 500 feet (after gear retraction but prior to flap retraction) jolt/yaw accompanied by bang similar to those experienced in simulator (associated with severe damage). I was hand flying (and focused on that) and by the time I looked at the engine instruments, all appeared normal. At the same time a strong burning smell was experienced. We quickly decided to return and not continue. We communicated with departure and stated our intentions. A few minutes after the odor started, it began to dissipate. ATC gave us a heading and assigned 9000 as an altitude. I engaged the autopilot (after the FO reminded me it was available). The FO ran the after takeoff checklist as well as set up the box for the return. I called the flight attendants and informed them of our situation. They informed me that they saw torching in the left engine when the bang occurred. The FO and I concluded that we most likely ingested a bird into the left engine and that the engine had a compressor stall. I sent a message to dispatch informing them of our condition and intent to return. Dispatch requested the emergency equipment for us. The FO and I discussed our landing overweight, and continued back for an uneventful landing (overweight).

**Narrative: 2**

At approximately 1000 feet agl we heard a loud bang followed by the aircraft yawing and a pronounced burning smell in the cabin. I was the monitoring pilot, I noticed the N1 indication dropped by approximately 20% and then returned to normal. Both engines were now operating normally and the burning smell quickly dissipated. We continued climbing and cleaned up the airplane normally. The Captain and I discussed what we thought was the issue, and determined we had probably hit a bird. We made the decision to return. I coordinated with ATC our intentions. ATC then gave us vectors for an ILS. Communications with the flight attendant revealed they had seen a flame come from the left engine. The Captain at this point continued to fly and took over communications with ATC, flight attendants etc., while I ran through the appropriate check lists and programmed the FMC for our return. The approach and landing were normal. Upon inspection of the left engine, it was determined there were remnants of a bird on the fan blades.

**Synopsis**
B737 flight crew reported a bird strike below 1,000 feet on departure which caused a momentary compressor stall before resuming normal operation. Flight returns to the departure airport for an overweight landing.
**Time / Day**

Date: 201610
Local Time Of Day: 0601-1200

**Place**

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

**Environment**

Light: Daylight

**Aircraft**

Reference: X
ATC / Advisory.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: Takeoff

**Person**

Reference: 1
Location Of Person.Aircraft: X
Location In Aircraft: Flight Deck
Reporter Organization: Air Carrier
Function.Flight Crew: Pilot Not Flying
Function.Flight Crew: First Officer
Qualification.Flight Crew: Air Transport Pilot (ATP)
Experience.Flight Crew.Last 90 Days: 14
Experience.Flight Crew.Type: 2850
ASRS Report Number.Accession Number: 1394074

**Events**

Anomaly.Ground Event / Encounter: Person / Animal / Bird
Detector.Person: Flight Crew
When Detected: In-flight
Result.Flight Crew: Returned To Gate
Result.Flight Crew: Requested ATC Assistance / Clarification
Result.Flight Crew: Rejected Takeoff
Result.Air Traffic Control: Provided Assistance
Result.Aircraft: Aircraft Damaged

**Assessments**

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

**Narrative: 1**

Very shortly after calling V1 (V1 was 132 knots) we noticed multiple large white birds in our takeoff path. We heard multiple (at least 2) loud thumps as we impacted the birds. The Captain rejected the takeoff and we came to a stop with approximately 3000 FT remaining on the runway. We made a call to Tower notifying them of the rejected takeoff.

We cleared the runway, made a PA to the Passengers explaining what had happened and then coordinated with Ground to find a remote parking spot for brake cool down and to have Maintenance check for hot brakes. After approximately 40 minutes we taxied to Gate and shut the aircraft down without further incident. The pitot static tube on the right side of the aircraft had feathers stuck to it and the number 2 engine had blood and bent fan blades, indicating that a seagull had been ingested by the engine.

**Synopsis**

B737-800 First Officer reported while at V1 speed encountered a bird strike so they aborted the takeoff.
ACN: 1393901

**Time / Day**
- Date: 201610
- Local Time Of Day: 0601-1200

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

**Environment**
- Light: Daylight

**Aircraft**
- Reference: X
- Aircraft Operator: Air Carrier
- Make Model Name: 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: Parked

**Person**
- Reference: 1
- Location Of Person.Aircraft: X
- Location In Aircraft: Flight Deck
- Reporter Organization: Air Carrier
- Function.Flight Crew: Captain
- Qualification.Flight Crew: Air Transport Pilot (ATP)
- ASRS Report Number.Accession Number: 1393901
- Human Factors: Training / Qualification
- Human Factors: Workload
- Human Factors: Communication Breakdown
- Communication Breakdown.Party1: Flight Crew
- Communication Breakdown.Party2: Ground Personnel

**Events**
- Anomaly.Deviation - Procedural: Published Material / Policy
- Anomaly.Ground Event / Encounter: Person / Animal / Bird
- Detector.Person: Flight Crew
- When Detected: Aircraft In Service At Gate
- Result.Flight Crew: Took Evasive Action

**Assessments**
- Contributing Factors / Situations: Company Policy
- Contributing Factors / Situations: Human Factors
- Contributing Factors / Situations: Procedure
- Primary Problem: Human Factors
**Narrative: 1**

As we were preparing to finish paperwork and push off of the gate, the ramp brought up their cargo load report and informed me that a dog was loaded in the aft cargo bin. They had also marked on the load sheet that the Live Animal was in the aft cargo bin. I informed them that the animal had to be loaded in the FWD cargo bin or else it would die. I then went out to make sure that they removed the animal and loaded it into the FWD cargo bin. I also informed all of the ground crew that live animals must always be loaded in the FWD Cargo bin on all ERJ-170/175's. They moved the animal, and we continued on with a corrected load sheet.

Be sure that the ground crew is aware of the type of aircraft and that they are following the correct procedures.

**Synopsis**

ERJ-170 Captain noted a dog had been loaded in the aft cargo bin. Because the animal would freeze in that pit during flight, he had ramp personnel move the dog to the forward cargo pit and alerted the ramp personnel that animals must always be put in the forward hold.
**ACN: 1389168 (49 of 50)**

**Time / Day**
- Date: 201609
- Local Time Of Day: 1801-2400

**Place**
- Locale Reference.Airport: ZZZ.Airport
- State Reference: US
- Altitude.MSL.Single Value: 2500

**Environment**
- Flight Conditions: Mixed
- Weather Elements / Visibility: Thunderstorm
- Weather Elements / Visibility: Visibility: 5
- Light: Night
- Ceiling: Single Value: 5000

**Aircraft**
- Reference: X
- ATC / Advisory.TRACON: ZZZ
- Aircraft Operator: Air Carrier
- Make Model Name: B757-200
- Crew Size.Number Of Crew: 2
- Operating Under FAR Part: Part 121
- Flight Plan: IFR
- Mission: Cargo / Freight
- Flight Phase: Initial Approach
- Route In Use: Visual Approach
- Airspace.Class B: ZZZ

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

**Person**
- Reference: 1
- Location Of Person.Aircraft: X
- Location In Aircraft: Flight Deck
- Reporter Organization: Air Carrier
- Function.Flight Crew: Captain
- Function.Flight Crew: Pilot Flying
- Qualification.Flight Crew: Air Transport Pilot (ATP)
- Experience.Flight Crew.Total: 13000
- Experience.Flight Crew.Last 90 Days: 70
- Experience.Flight Crew.Type: 4500
- ASRS Report Number.Accession Number: 1389168

**Events**
Anomaly.Aircraft Equipment Problem: Less Severe
Anomaly.Inflight Event / Encounter: Bird / Animal
Detector.Person: Flight Crew
When Detected: In-flight
Result.General: Maintenance Action
Result.Flight Crew: Overcame Equipment Problem
Result.Flight Crew: Executed Go Around / Missed Approach

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

Narrative: 1

Vectored to visual Runway XXL, using the Loc as a backup. FO flying, approximately 2500 ft MSL FO asked for Flaps 15, and received a TE FLAP DISAGREE message with light. Flaps showed no split and were stopped between flaps 5 and 15. I checked lever in detent which it was and informed FO we were going to have to discontinue the approach. Informed tower and told them we had a problem and need to discontinue. Went into altitude hold and continue on the LOC for a couple of minutes for coordination. Followed the vectors, climbed to 4000 ft and began the QRH procedures with the FO flying. Many thunderstorms around, so there were many turns, FO took radios as procedure was accomplished. Alternate Flaps extended to Flaps 15 and followed the procedure to stop there and land with Flaps 15 and Vref 20. Checked Non-Normal landing distance in QRH, (old 757, was not going to type in the freehand message). Plenty of room, with approximately 4000 ft of runway required and runway YY being 13000 ft. Selected autobrakes 3 as to reduce brake heating and there was three times the runway needed. We told approach of our aircraft state. Requested runway YY and equipment standing by. I decided to take landing, FO agreed. Setup and briefed visual to YY with the ILS as a backup. Landed without incident and made high speed taxiway off runway and stopped off runway. Requested the emergency crew inspect a/c for wheel condition and fire. None noted.

Taxied to ramp, I believe some emergency crews followed us to parking. Left aircraft in landing configuration during taxi to block in. Informed ground and emergency crew that we were doing this. Left all switches in the configuration the QRH mandated. Called the ramp for parking and informed them of the same. Mechanics found feathers of large bird in right TE flaps. Suspected this caused the aircraft to sense the disagree, having probably hit it in transit. Aircraft was cleaned and inspected, and the appropriate tests to the flaps were accomplished to allow the aircraft to return to service for the return leg. I called dispatch at block in to inform them of the situation, they were not informed during the event. This was in my thought not appropriate since we were not rushed, but the atmosphere was very busy being in the vectors with the storms and congestion. I did not want to keep the crew in split operations too long, with FO both flying and talking, as the navigation around the storms was very close. I did not feel it warranted any other input since the conclusion was very apparent, thus elected not to include any further inputs from ops or maintenance.

Synopsis
B757-200 Captain reported receiving a TE FLAP DISAGREE message on approach. On the ground, evidence of a bird strike on the flaps was noted.
ACN: 1389136 (50 of 50)

Time / Day
Date: 201609
Local Time Of Day: 1801-2400

Place
Locale Reference: Airport: ZZZ.Airport
State Reference: US
Altitude: MSL: Single Value: 5000

Environment
Flight Conditions: IMC
Light: Night

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: Initial Approach
Airspace: Class E: ZZZ

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

Person
Reference: 1
Location Of Person: Aircraft: X
Location In Aircraft: Flight Deck
Reporter Organization: Air Carrier
Function: Flight Crew: Captain
Function: Flight Crew: Pilot Flying
Qualification: Flight Crew: Air Transport Pilot (ATP)
Experience: Flight Crew: Total: 18000
Experience: Flight Crew: Type: 997
ASRS Report Number: Accession Number: 1389136
Analyst Callback: Attempted

Events
Anomaly: Aircraft Equipment Problem: Critical
Anomaly: Inflight Event / Encounter: Bird / Animal
Detector: Person: Flight Crew
When Detected: In-flight
We were IMC, being vectored for the ILS. The autopilot and autothrottles were engaged, and plane was descending out of 5000 for 4000 feet when we felt something hit the plane with a WHUMP. Almost immediately, we smelled something burnt (not electrical), and the F/As called to report burnt smell and smoke in the cabin. All engine and system indications appeared normal at this time. Within moments, the plane began to level at 4000 feet, and the engines began to spool up. An increasing vibration/shaking of the plane was felt. I looked at the engine gauges and saw that the right engine was spooling up past 65% N1, but the left engine was stagnant at approx. 54% N1, with the trend arc indicating more thrust was being demanded. I realized we had an issue with the left engine, and immediately disconnected the autothrottles and retarded the left throttle. With the left throttle retarded to near idle, the vibration/shaking ceased. I attempted to spool up the left engine once again, but near 50% N1, the vibration/shaking would ensue. All other indications were normal. I retarded the throttle enough to prevent the vibration and left it there. Realizing we most likely had substantial damage to the left engine, I instructed the F/O to "[Advise ATC]. I want to land immediately." About this time, we had emerged from IMC into VMC conditions, and I acquired the airport visually off our right side. I disconnected the autopilot and began turning towards the airport, and transmitted to ATC that I had the field in sight and wanted visual approach clearance now. They immediately cleared us for the visual. The final approach and landing were otherwise uneventful. Since I didn't know the status of the left engine, I elected to use idle reverse and max autobrakes on landing. Emergency equipment visually inspected our aircraft, and then we taxied to the gate.

Synopsis

B737 Captain reported a bird strike that damaged the #1 engine while on approach in IMC.