

**ASRS Database Report Set**

**Cabin Smoke, Fire, Fumes, or Odor Incidents**

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Report Set Description.....A sampling of air carrier reports concerning cabin smoke, fire, fumes or odor related events.

Update Number.....2.0

Date of Update .....December 28, 2012

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

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

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.

National Aeronautics and  
Space Administration

**Ames Research Center**  
Moffett Field, CA 94035-1000



TH: 262-7

**MEMORANDUM FOR: Recipients of Aviation Safety Reporting System Data**

**SUBJECT: Data Derived from ASRS Reports**

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

ASRS reports are submitted voluntarily. 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 NASA in response to queries of the ASRS database and related materials.

*Linda J. Connell*

Linda J. Connell, Director  
NASA Aviation Safety Reporting System

## CAVEAT REGARDING USE OF ASRS DATA

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

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

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

# Report Synopses

**ACN: 1043479** *(1 of 50)*

**Synopsis**

A CRJ900 flight crew declared an emergency and returned to their departure airport when multiple avionics displays failed due to a failed equipment cooling fan.

**ACN: 1038218** *(2 of 50)*

**Synopsis**

A MD-82 wheel well hydraulic component "O" ring failed on takeoff allowing hydraulic fluid to enter the air conditioning system. The odor made the pilots light headed so an emergency was declared and the flight returned to the departure airport.

**ACN: 1038081** *(3 of 50)*

**Synopsis**

An A319 developed a dirty socks odor on the crew's third flight of the day in that aircraft so an emergency was declared and the flight diverted where four crew members were taken to a hospital with headaches and high blood pressure.

**ACN: 1037081** *(4 of 50)*

**Synopsis**

Dash 8-100 Captain reported smoke and odor emanating from windshield heat terminal bar. Power to window was shut off and smoke and odor disappeared.

**ACN: 1037079** *(5 of 50)*

**Synopsis**

EMB-145XR First Officer described seeing and smelling thick smoke on initial climb. Flight declared an emergency and returned to departure airport.

**ACN: 1035799** *(6 of 50)*

**Synopsis**

A B737-700 returned to the gate during taxi after flight attendants reported a repeat detection of a strong electrical smell near the L1/R1 doors.

**ACN: 1035786** *(7 of 50)*

**Synopsis**

An A321 diverted because the flight attendants reported physical symptoms including eye, sinus and throat irritation, foggy headedness, and headaches after detecting a dirty socks odor.

**ACN: 1035755** (8 of 50)

### **Synopsis**

After previously diverting en route for an odor and with the Cargo Fan MELED, the flight continued to the filed destination where on approach the odor returned. So an emergency was declared and the crew donned oxygen masks for a short approach. Several flight attendants reported being ill.

**ACN: 1035746** (9 of 50)

### **Synopsis**

B777 flight attendants and pilots detected an electrical odor in First and Business Classes so an emergency was declared and the flight diverted to an enroute airport for maintenance. The flight later continued on the same aircraft.

**ACN: 1035032** (10 of 50)

### **Synopsis**

An A320 Lead Flight Attendant became ill after a strong electrical smell developed in the forward galley during climb, an emergency was declared and the flight returned to the departure airport.

**ACN: 1034636** (11 of 50)

### **Synopsis**

An EMB-145 APU shutdown prior to pushback and subsequently a pilot informed them the APU as on fire so the aircraft was evacuated, an emergency declared, the QRH completed and the Fire Crew extinguished the fire.

**ACN: 1034405** (12 of 50)

### **Synopsis**

A B757-200 crew declared an emergency and returned to the departure airport when a strong rubber smell was detected after takeoff followed shortly by the EQUIP COOLING OVHT alert caused by a Recirculation Fan failure.

**ACN: 1033796** (13 of 50)

### **Synopsis**

DC-9-82 Captain reported fuel fumes were noticeable in the cockpit and cabin so a decision was made to divert to the nearest suitable airport.

**ACN: 1033626** (14 of 50)

### **Synopsis**

Pilot of an experimental aircraft reported declaring an emergency and diverting to nearest suitable airport when extreme heat and exhaust began entering cockpit from an opening in the fuselage floor pan.

**ACN: 1033186** *(15 of 50)*

### **Synopsis**

A B737-700 developed a dirty gym socks odor during engine start which cleared somewhat. After takeoff as the landing gear was raised, momentary Master Caution, FLT CTL, and HYD annunciations were seen with no secondary indications. During climb, the odor reoccurred and the aircraft was returned to the departure airport.

**ACN: 1032498** *(16 of 50)*

### **Synopsis**

Shortly after takeoff a MD-83 crew and passengers detected a strong electrical burning smell with smoke in the cabin, so an emergency was declared and the flight returned to the departure airport where a burnt florescent light ballast was found in row 20.

**ACN: 1032392** *(17 of 50)*

### **Synopsis**

An A319 flight crew declared an emergency and returned to their departure airport when a Flight Attendant reported smoke in the cabin shortly after takeoff.

**ACN: 1030484** *(18 of 50)*

### **Synopsis**

Passengers and ground personnel noticed smoke coming from the left main gear of an EMB-145 while parking at the gate. Passengers were quickly deplaned and CFR crews responded promptly to the affected area, where a hydraulic leak was found.

**ACN: 1029909** *(19 of 50)*

### **Synopsis**

B767 Captain is informed of a sweet burning smell in the cabin shortly after takeoff. The smell is very faint and quickly dissipates. One hour into the flight more vigorous smoke is detected in the cockpit and the flight diverts to the nearest suitable airport. The smoke began to subside and approximately five minutes later the EICAS displayed a RIGHT REIRC FAN message.

**ACN: 1029581** *(20 of 50)*

### **Synopsis**

B737-700 Captain reported that engine #1 overheat light illuminated on taxi out. Engine was shut down, fire bottle discharged, and flight returned to gate.

**ACN: 1029433** *(21 of 50)*

### **Synopsis**

C206 pilot at 10,000 FT experiences communications failure followed shortly by a burning electrical smell and smoke. All avionics are shut down and the reporter commences and emergency descent to the closest airport. During the descent the smoke begins to dissipate and a safe landing ensues.

**ACN: 1029202** *(22 of 50)*

### **Synopsis**

CE680 flight crew experiences a loud bang followed by a low vibration and rumbling during descent for landing. All indications in the cockpit are normal but the crew diverts for maintenance at the company's request. Post flight revealed that most of the bottom of the right engine cowling was missing.

**ACN: 1029058** *(23 of 50)*

### **Synopsis**

A Companion Dog on an A320 became ill and loose boweled, requiring a potentially toxic cleaning agent to clean up. The crew refused aircraft for flight because of fumes.

**ACN: 1028718** *(24 of 50)*

### **Synopsis**

A B-737 flight test crew declared an emergency, donned oxygen masks, and returned to their departure airport due to recurring fumes in the cockpit.

**ACN: 1026777** *(25 of 50)*

### **Synopsis**

An EMB145 crew declared an emergency and returned to the departure airport after the Flight Attendant reported cabin smoke during the climb after takeoff. The smoke's odor was described as rubber or electrical in nature.

**ACN: 1025922** *(26 of 50)*

### **Synopsis**

MD11 First Officer reports an early starter disengagement during pushback with the fuel lever placed to off. Fire is reported by the ground observer and the Captain pulls the the fire handle and discharges both fire bottles.

**ACN: 1025555** *(27 of 50)*

### **Synopsis**

An A300 cockpit filled with an acrid smoke during post flight shutdown with no engines running, so Maintenance suspected a hydraulic malfunction.

**ACN: 1025517** *(28 of 50)*

### **Synopsis**

A MD-82 cabin filled with smoke after takeoff, so an emergency was declared and the flight returned to the departure airport where the aircraft was removed from service.

**ACN: 1025254** *(29 of 50)*

### **Synopsis**

CE-560XL flight crew reported shortly after takeoff they had ACM O'HEAT and BLD AIR O'HEAT messages, as well as black smoke in the cockpit and cabin. They declared an emergency, returned to departure airport, and evacuated the aircraft.

**ACN: 1024371** *(30 of 50)*

### **Synopsis**

An MD-82 pack overheated during taxi-in and filled the cabin with smoke, so the crew declared an emergency and returned to the gate where passengers were removed on the jetway.

**ACN: 1024170** *(31 of 50)*

### **Synopsis**

Smoke and fumes developed in a B757 cabin during taxi, causing nausea, a metallic taste, and eye irritation. The Captain declared an emergency and returned to the gate where APU oil was found in the air conditioning system.

**ACN: 1024009** *(32 of 50)*

### **Synopsis**

G200 Captain experiences smoke with a burnt plastic smell shortly after takeoff. After declaring an emergency they return to the departure airport. Fuel is dumped so as to land below maximum landing weight.

**ACN: 1023934** *(33 of 50)*

### **Synopsis**

B757 Flight Attendants reported nausea, head aches, and other physical ills after a flight on which oil fumes and odors were reported. The previous crew rejected that aircraft after reporting ill effects from the odor.

**ACN: 1023782** *(34 of 50)*

### **Synopsis**

A B737 Flight Attendant became unconscious in flight after experiencing a strong odor in an aft lavatory during preflight and again after takeoff.

**ACN: 1023442** *(35 of 50)*

### **Synopsis**

A B757 First Officer had a headache two days after a flight on which a formaldehyde odor was detected during descent on two consecutive flights. The smell may be the gym socks TCP odor.

**ACN: 1023357** *(36 of 50)*

### **Synopsis**

A Maintenance Controller reports a McDonald Douglas aircraft taxied back to the gate due to smoke in the cabin. An incorrect battery charger had been installed by Contract Maintenance that was not 'Effective' (not matched) to the aircraft's D.C. batteries.

**ACN: 1023251** *(37 of 50)*

### **Synopsis**

A BE-400XP developed cockpit smoke originating from the First Officer's side wall so the climb was stopped and a descent to landing at a nearby airport completed. The smoke dissipated and no popped circuit breakers were found.

**ACN: 1022750** *(38 of 50)*

### **Synopsis**

A Citation flight crew returned to their departure airport after unusual smoke and odors were detected emanating from the air conditioning vents.

**ACN: 1021845** *(39 of 50)*

### **Synopsis**

Faint odors detected by passengers and flight attendants aboard an A330 may have caused nausea and headaches for three flight attendants as the flight approached its destination.

**ACN: 1021482** *(40 of 50)*

### **Synopsis**

A M20 developed smoke and fumes after takeoff so the pilot secured all Master Electrical Switches and continued flying spending a short while under Class B Airspace with the transponder OFF.

**ACN: 1021202** *(41 of 50)*

## Synopsis

CRJ-700 Captain reported acrid smell from APU after landing. At gate a momentary APU fire warning resulted in APU shutdown, but no fire found by CFR.

**ACN: 1020098** *(42 of 50)*

## Synopsis

A Contract Line Mechanic reports that a Regional Jet aircraft had reported smoke in the cabin and flight deck on approach. During troubleshooting of the smoke, he noticed evidence of overheating at the left-hand ceiling ballast fixture and disconnected the electrical connectors at both ends of the fixture, but had failed to include the information when deferring the light assembly.

**ACN: 1019896** *(43 of 50)*

## Synopsis

Pilot on a patient transport flight noted a loss of the air conditioning system followed by a burning smell, so performed a precautionary landing and transfer of the patient to another EMS unit.

**ACN: 1018181** *(44 of 50)*

## Synopsis

An A319 flight attendant crew reported an egg/sulfur smell near Row 18 prior to flight but Maintenance found no cause. During flight, the odor returned so the Captain diverted to an enroute airport and was later told the cause was an overheated cabin sidewall electrical light ballast.

**ACN: 1017408** *(45 of 50)*

## Synopsis

B737-300 flight crew experienced electrical malfunction that included multiple flashing lights and electrical smoke. Crew declared an emergency and diverted to a suitable airport.

**ACN: 1017295** *(46 of 50)*

## Synopsis

A B737-800 Captain reported a sparking/smoking coffee maker in the aft galley prior to leaving the gate. The Flight Attendant shut off the device and pulled the associated CB. After inspection by CFR and the removal of the unit the flight departed.

**ACN: 1016822** *(47 of 50)*

## Synopsis

A ground crew headset, previously noted as "giving them trouble" may have contributed to a breakdown in communication between the flight and ground crews when an engine start at a remote location at night ran amok due to uncommanded movement of the aircraft.

**ACN: 1015884** *(48 of 50)*

**Synopsis**

An A321 Flight Attendant reported a dirty socks odor and experienced symptoms during takeoff and climb to 10,000 FT. The aircraft was removed from service at its destination.

**ACN: 1015826** *(49 of 50)*

**Synopsis**

A B737 First Officer reported becoming ill from WD40 chemical fumes after maintenance treated his sticking seat track. He later found that WD40 use is not allowed in the cockpit.

**ACN: 1015376** *(50 of 50)*

**Synopsis**

A MD-11 cargo compartment Fire Suppression System alerted and activated at cruise so after visually verifying foaming action, an emergency was declared and the flight diverted to a nearby foreign airport.

# Report Narratives

## Time / Day

Date : 201210  
Local Time Of Day : 1801-2400

## Place

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

## Environment

Flight Conditions : VMC  
Light : Night

## Aircraft

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

## Component

Aircraft Component : Cooling Fan, any cooling fan  
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 Not Flying  
Qualification.Flight Crew : Air Transport Pilot (ATP)  
ASRS Report Number.Accession Number : 1043479  
Human Factors : Training / Qualification  
Human Factors : Human-Machine Interface  
Human Factors : Communication Breakdown  
Communication Breakdown.Party1 : Flight Crew  
Communication Breakdown.Party2 : Flight Attendant  
Communication Breakdown.Party2 : Other  
Analyst Callback : Attempted

## Person : 2

Reference : 2  
Location Of Person.Aircraft : X  
Location In Aircraft : Flight Deck  
Reporter Organization : Air Carrier  
Function.Flight Crew : Pilot Flying  
Function.Flight Crew : First Officer  
Qualification.Flight Crew : Air Transport Pilot (ATP)  
ASRS Report Number.Accession Number : 1043477  
Analyst Callback : Attempted

## Events

Anomaly.Aircraft Equipment Problem : Critical  
Anomaly.Flight Deck / Cabin / Aircraft Event : Smoke / Fire / Fumes / Odor  
Detector.Person : Flight Crew  
Were Passengers Involved In Event : N  
When Detected : In-flight  
Result.General : Declared Emergency  
Result.General : Evacuated  
Result.Flight Crew : Returned To Departure Airport

## Assessments

Contributing Factors / Situations : Aircraft  
Primary Problem : Aircraft

## Narrative: 1

Shortly after takeoff we received an EICAS caution message AVIONICS FAN followed shortly by the smell of electrical fumes the loss of the First Officer's MFD and Flight Director.

I assumed pilot flying duties, told the First Officer to advise ATC that we were declaring an emergency and were returning to land at our departure airport. Fumes did not seem to be getting stronger, but I directed the First Officer to don his oxygen mask. By this time, my Flight Director had failed and we had heard what sounded like a number of circuit breakers popping. After the First Officer had donned his mask, I transferred controls back to him and donned my oxygen mask.

We elected to remain at flaps 20 from the takeoff. As we entered downwind I told the flight attendants we were returning to the airport due to fumes in the cockpit. We made a normal landing and exited the runway. I elected to perform an evacuation as the conservative option but was unable to reach the flight attendants via the PA or the normal intercom system. Instead, I opened the cockpit door and commanded the evacuation.

The aircraft was evacuated and no injuries were reported by passengers or crew. An off duty Flight Attendant generously helped during the evacuation with some of the passengers who had limited mobility. Superlative teamwork and job by all involved: my First Officer, the flight attendants, passengers, ATC and emergency services.

The training received during simulator events for smoke/fumes in the cockpit was invaluable, as well as the experience for various emergency/abnormal situations. Thanks Training Department!

**Narrative: 2**

[Narrative #2 contained no additional information.]

**Synopsis**

A CRJ900 flight crew declared an emergency and returned to their departure airport when multiple avionics displays failed due to a failed equipment cooling fan.

## Time / Day

Date : 201209  
Local Time Of Day : 0601-1200

## Place

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

## Environment

Light : Daylight

## Aircraft

Reference : X  
ATC / Advisory.Tower : ZZZ  
Aircraft Operator : Air Carrier  
Make Model Name : MD-83  
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 : Hydraulic System Lines, Connectors, Fittings  
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 Not Flying  
Qualification.Flight Crew : Air Transport Pilot (ATP)  
ASRS Report Number.Accession Number : 1038218  
Human Factors : Fatigue  
Human Factors : Physiological - Other  
Human Factors : Time Pressure  
Analyst Callback : Completed

## Events

Anomaly.Aircraft Equipment Problem : Less Severe  
Anomaly.Flight Deck / Cabin / Aircraft Event : Smoke / Fire / Fumes / Odor

Anomaly.Flight Deck / Cabin / Aircraft Event : Illness  
Detector.Person : Flight Crew  
When Detected : In-flight  
Result.General : Declared Emergency  
Result.General : Physical Injury / Incapacitation  
Result.General : Maintenance Action  
Result.Flight Crew : Returned To Departure Airport  
Result.Flight Crew : Took Evasive Action  
Result.Flight Crew : Landed in Emergency Condition

## **Assessments**

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

## **Narrative: 1**

On takeoff we noticed an odor like Chlorine at 110 KTS. By 1,500 FT, it was more like turpentine. We declared an emergency, accomplished the QRH, smoke/fire/fumes checklist and returned to the airport for an overweight landing.

## **Callback: 1**

The reporter was told several days after this event that an "O" ring in a wheel well hydraulic component had failed and allowed air to stream back along the aircraft belly during takeoff. The assumption is that it was ingested in an aircraft engine and then into the left pack. A previous night both engine high pressure bleed valves were cleaned and the reporter's first thought after detecting the odor was residual cleaning fluid on the valves. Before putting on his oxygen mask, he began feeling light headed. After landing he and First Officer sought medical attention and were told at the hospital that they had inflamed lung tissue. The reporter felt fatigued for about two days after the event and his personal physician gave him a steroid injection which seemed to relieve his malaise. Because the flight attendants were apparently not affected by the fumes and continued the trip, the reporter assumed the left engine and pack were the source of the fumes since the flight station receives all of its conditioned air from that source.

## **Synopsis**

A MD-82 wheel well hydraulic component "O" ring failed on takeoff allowing hydraulic fluid to enter the air conditions system. The odor made the pilots light headed so an emergency was declared and the flight returned to the departure airport.

## Time / Day

Date : 201209  
Local Time Of Day : 1201-1800

## Place

Locale Reference.Airport : ZZZ.Airport  
State Reference : US  
Altitude.MSL.Single Value : 19000

## Environment

Light : Daylight

## Aircraft

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

## 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 : 1038081  
Human Factors : Communication Breakdown  
Human Factors : Physiological - Other  
Human Factors : Situational Awareness  
Human Factors : Time Pressure  
Human Factors : Workload  
Human Factors : Distraction  
Communication Breakdown.Party1 : Flight Crew  
Communication Breakdown.Party2 : Dispatch  
Analyst Callback : Attempted

## Events

Anomaly.Aircraft Equipment Problem : Critical  
Anomaly.Flight Deck / Cabin / Aircraft Event : Smoke / Fire / Fumes / Odor  
Anomaly.Flight Deck / Cabin / Aircraft Event : Illness

Detector.Person : Flight Crew  
Detector.Person : Passenger  
Detector.Person : Flight Attendant  
When Detected : In-flight  
Result.General : Declared Emergency  
Result.General : Maintenance Action  
Result.Flight Crew : Diverted  
Result.Flight Crew : FLC complied w / Automation / Advisory  
Result.Flight Crew : Took Evasive Action

## Assessments

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

## Narrative: 1

As background, the aircraft logbook contained a write-up for a similar, dirty socks odor the previous day on a flight. The logbook entry showed job card work performed and I believe air filters were replaced. The aircraft was then ferried the next day. The Captain told me there were no odors and all appeared normal. I then flew two normal revenue flights with the aircraft also with no odors or other issues. On the subsequent the A Flight Attendant reported a strong dirty socks odor in the forward galley. Based on this report, I initiated the Smoke/Avionics Smoke/Fumes QRH Immediate Action procedure. While in the process of getting our oxygen masks on, both the First Officer and I also detected the strong odor. The QRH procedures calls for proceeding toward the nearest suitable airport. As we were equally close in time to three suitable airports, I sent a quick ACARS message to the Dispatcher informing him of our situation and asking which airport would be best. He suggested continuing to our destination where he would ask for priority. At this point the flight attendants in the forward galley reported they were feeling nauseous. I declared an emergency and informed ATC, Dispatch, flight attendants, and the customers we were diverting. After an uneventful landing, we proceeded toward our assigned gate. We requested paramedics meet the aircraft. While taxiing in, Ramp Control told us that, while our gate was open, company operations wanted us to hold for another gate that would be coming open "soon" and to contact Operations. I did so and reminded them of our emergency status and our need to get the customers and flight attendants off the aircraft as soon as possible. At this point the odor was evident only in the very front of the cabin, however I was concerned it might spread once on the ground and wanted to minimize customer exposure. We proceeded to the open gate. The First Officer and I kept our oxygen masks on until the engines were shutdown and the cockpit windows had been opened. The customers were deplaned. Some in first class were aware of the odor, but none complained of any symptoms. The A and C flight attendants were still nauseous. The First Officer had a headache but believed it might be from the oxygen mask. I was not feeling well at all. The B Flight Attendant had no symptoms. The Maintenance Manager who met the aircraft said he could still detect a faint odor in the cockpit; however the cockpit windows had been open for about ten minutes by that time. Paramedics examined the crew, and then recommended the four with symptoms be taken to the ER for checkout. The B Flight Attendant went with us as well. We were taken [to a] University hospital. Most symptoms dissipated within 3-4 hours except mine. Curiously, however, all five still had high blood pressure late into the evening, even the three of us that normally have

distinctly low blood pressure. My symptoms eased about midnight. All crew members were released by then and preceded to a hotel. Flight Attendant Supervisor graciously met the crew at the hospital and arranged hotel rooms, ground transportation and deadheads for us. 1. Suggestion by Dispatcher to continue to destination was "unhelpful" in a situation where the QRH procedure called for proceeding to the nearest suitable airport. 2. Request by Operations, in an emergency situation, for us to bypass the originally assigned OPEN gate and wait for another gate to come open "soon" was, to say the least, "inappropriate."

## **Synopsis**

An A319 developed a dirty socks odor on the crew's third flight of the day in that aircraft so an emergency was declared and the flight diverted where four crew members were taken to a hospital with headaches and high blood pressure.

## Time / Day

Date : 201209  
Local Time Of Day : 0601-1200

## Place

Locale Reference.Airport : ZZZ.Airport  
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 : Dash 8-100  
Crew Size.Number Of Crew : 2  
Operating Under FAR Part : Part 121  
Flight Plan : IFR  
Mission : Passenger  
Flight Phase : Descent  
Airspace.Class E : ZZZ

## Component

Aircraft Component : Window Ice/Rain System  
Aircraft Reference : X  
Problem : Malfunctioning

## Person

Reference : 1  
Location Of Person.Aircraft : X  
Location In Aircraft : Flight Deck  
Reporter Organization : Air Carrier  
Function.Flight Crew : Captain  
Function.Flight Crew : Pilot Not Flying  
Qualification.Flight Crew : Air Transport Pilot (ATP)  
ASRS Report Number.Accession Number : 1037081

## Events

Anomaly.Aircraft Equipment Problem : Critical  
Anomaly.Flight Deck / Cabin / Aircraft Event : Smoke / Fire / Fumes / Odor  
Detector.Person : Flight Crew  
When Detected : In-flight  
Result.Flight Crew : Overcame Equipment Problem

## **Assessments**

Contributing Factors / Situations : Aircraft

Primary Problem : Aircraft

### **Narrative: 1**

Abnormal odor while approaching destination, initially identical to peanut butter, then dull electrical. I mentioned windshield and side window heat issue(s) based on past experience. We immediately suited up and communicated. We looked everywhere for smoke and only First Officer could see slight stream (like a single blown out pastry candle) emitting from the electrical terminal bar at the top of the right windshield. I immediately turned off the windshield heat and the odor and slight smoke stream ended immediately. We reviewed the smoke related checklist(s) and continued our descent and landing without further incident. Upon speaking with Maintenance Control we discovered the same thing had happened on [a previous date].

### **Synopsis**

Dash 8-100 Captain reported smoke and odor emanating from windshield heat terminal bar. Power to window was shut off and smoke and odor disappeared.

## Time / Day

Date : 201209  
Local Time Of Day : 1201-1800

## Place

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

## Environment

Flight Conditions : VMC  
Light : Daylight

## Aircraft

Reference : X  
ATC / Advisory.TRACON : ZZZ  
Aircraft Operator : Air Carrier  
Make Model Name : EMB ERJ 145 ER&LR  
Crew Size.Number Of Crew : 2  
Operating Under FAR Part : Part 121  
Mission : Passenger  
Flight Phase : Climb  
Airspace.Class C : ZZZ

## 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 Flying  
Qualification.Flight Crew : Air Transport Pilot (ATP)  
ASRS Report Number.Accession Number : 1037079

## Events

Anomaly.Aircraft Equipment Problem : Less Severe  
Anomaly.Flight Deck / Cabin / Aircraft Event : Smoke / Fire / Fumes / Odor  
Detector.Person : Flight Crew  
When Detected : In-flight  
Result.General : Declared Emergency  
Result.Flight Crew : Returned To Departure Airport  
Result.Flight Crew : Landed in Emergency Condition

## Assessments

Contributing Factors / Situations : Aircraft  
Primary Problem : Aircraft

## **Narrative: 1**

Just after takeoff, on the initial climb at about 2,000 FT we smelled and saw a thick smoke coming from inside the cockpit. I asked the pilot not flying if he felt the same thing and when he answered that he did we started doing the "smoke in the cockpit" emergency items. After declaring an emergency we returned to [departure] airport where an overweight landing was made. We had also a problem of communication between the pilot flying and the pilot not flying and also the Flight Attendant because the mic on the oxygen mask of the pilot not flying was not working properly. So the pilot flying had to fly the airplane and do the radio communication at the same time. Also we were only able to notify the Flight Attendant about an emergency and that we were returning to the airport but further communications were difficult due to the mic problem. After landing we taxied back to the gate under fire fighters escort. We then deplaned the passenger and a normal shutdown was done.

The smoke in the cockpit was at first very thick but slowly dissipated as we were turning on final which made the landing uneventful. Also after landing we tried to get in contact with Operations but were unable to get in touch with them. Training and proficiency of crew member made this emergency very easy to handle. After finding out that the oxygen mask mic of the pilot not flying was not working we immediately came up with other means of communication as for example hand signal and as the smoke cleared up we were lifting our oxygen mask a little bit to be able to communicate.

## **Synopsis**

EMB-145XR First Officer described seeing and smelling thick smoke on initial climb. Flight declared an emergency and returned to departure airport.

## Time / Day

Date : 201209  
Local Time Of Day : 0601-1200

## Place

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

## Environment

Flight Conditions : VMC  
Light : Daylight

## Aircraft

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

## 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 : 1035799  
Human Factors : Troubleshooting  
Human Factors : Distraction  
Human Factors : Physiological - Other  
Human Factors : Situational Awareness  
Analyst Callback : Completed

## Events

Anomaly.Aircraft Equipment Problem : Less Severe  
Anomaly.Flight Deck / Cabin / Aircraft Event : Smoke / Fire / Fumes / Odor  
Detector.Person : Flight Attendant  
When Detected : Pre-flight  
Result.General : Physical Injury / Incapacitation  
Result.General : Flight Cancelled / Delayed

Result.General : Maintenance Action  
Result.Flight Crew : Took Evasive Action  
Result.Flight Crew : Returned To Gate

## **Assessments**

Contributing Factors / Situations : Aircraft  
Primary Problem : Aircraft

## **Narrative: 1**

Aircraft arrived at the gate after having been transported from the maintenance hangar. Upon the crew's arrival on aircraft every crewmember commented on an acrid electrical like smell near the L1/R1 doors. I called Maintenance about the smell. Maintenance investigated, and found nothing. After passengers enplaned the aircraft, during pushback, flight attendants in forward cabin contacted the flight crew about an increasing electrical smell. We returned to gate under aircraft power after coordinating with Maintenance, and Operations. Cabin crew complained of feeling ill from the effects of an acrid, electrical-like smell.

## **Callback: 1**

The Reporter stated that he, the First Officer and two flight attendants made comments about the odor during preflight but all agreed it was subtle and intermittent. During pushback the odor became so strong that the forward flight attendants were affected physically so the aircraft was returned to the gate, where upon opening the door, three mechanics also smelled the odor. The two forward flight attendants removed themselves from the trip because of the physical effects from the odor. The Reporter stated that the smell was similar to when he soldered electrical components which produced a combination of an odd odor and heated wires. The aircraft was removed from service but the Reporter does not know what the maintenance findings were.

## **Synopsis**

A B737-700 returned to the gate during taxi after flight attendants reported a repeat detection of a strong electrical smell near the L1/R1 doors.

## Time / Day

Date : 201209  
Local Time Of Day : 0601-1200

## Place

Locale Reference.Airport : ZZZ.Airport  
State Reference : US  
Altitude.MSL.Single Value : 35000

## Environment

Light : Daylight

## Aircraft

Reference : X  
ATC / Advisory.Center : 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 : Cruise  
Airspace.Class A : 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 Not Flying  
Qualification.Flight Crew : Air Transport Pilot (ATP)  
ASRS Report Number.Accession Number : 1035786  
Human Factors : Situational Awareness  
Human Factors : Troubleshooting  
Human Factors : Physiological - Other  
Analyst Callback : Completed

## Events

Anomaly.Flight Deck / Cabin / Aircraft Event : Illness  
Anomaly.Flight Deck / Cabin / Aircraft Event : Smoke / Fire / Fumes / Odor  
Detector.Person : Passenger  
Detector.Person : Flight Attendant  
Were Passengers Involved In Event : Y  
When Detected : In-flight  
Result.General : Declared Emergency

Result.Flight Crew : Diverted  
Result.Flight Crew : Landed As Precaution

## **Assessments**

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

## **Narrative: 1**

About an hour after departing Flight Attendant C notified me of an offensive dirty socks odor in vicinity of aft galley, aircraft right coffee pots. She said she hadn't mentioned it earlier because she initially believed the source may have been a group of passenger. She said it was causing a burning sensation in her sinuses. She said passengers were not complaining. I notified the Dispatcher, began looking through the manuals for guidance, and discussed the situation with the First Officer. Flight Attendant contacted me again and explained that Flight Attendant B also noticed the odor and that Flight Attendant B had a migraine that began just before takeoff and that she had taken medication to treat the migraine. She said passengers were not complaining about the odor. Shortly after, Flight Attendant B came forward to the cockpit to notify us that she was feeling "foggy headed" and she observed that her hands were trembling. At this point we received another call from the cabin and learned that Flight Attendant A was also noticing the odor and that it was causing her throat to feel "scratchy." While events concerning the flight attendants were unfolding the Dispatcher suggested trying the "QRH Smoke and Fumes" procedure. We configured the aircraft in accordance with this procedure hoping to improve air quality in the cabin. Considering the more serious symptoms reported by Flight Attendant B and once Flight Attendant C A also reported a problem we decided to make a precautionary landing at a nearby airport. I made a PA explaining the passengers that we were making a precautionary landing due to reports of poor air quality in the cabin. We donned O2 masks and declared an emergency. The descent and landing was uneventful. After landing paramedics checked the flight attendants. After landing I learned that at least one passenger in the forward part of the cabin had also made comments regarding the odor prior to my PA.

## **Callback: 1**

The Reporter stated that the crew left the aircraft at the divert station and did not know its status. As far as he knows, the flight attendants crew did not suffer any long term effects.

## **Synopsis**

An A321 diverted because the flight attendants reported physical symptoms including eye, sinus and throat irritation, foggy headedness, and headaches after detecting a dirty socks odor.

## Time / Day

Date : 201209  
Local Time Of Day : 1801-2400

## Place

Locale Reference.ATC Facility : ZZZ.ARTCC  
State Reference : US  
Altitude.MSL.Single Value : 7000

## Environment

Flight Conditions : VMC  
Light : Night

## Aircraft

Reference : X  
ATC / Advisory.TRACON : ZZZ  
Aircraft Operator : Air Carrier  
Make Model Name : B777-200  
Crew Size.Number Of Crew : 3  
Operating Under FAR Part : Part 121  
Flight Plan : IFR  
Mission : Passenger  
Nav In Use : FMS Or FMC  
Flight Phase : Final Approach  
Airspace.Class B : ZZZ

## Component

Aircraft Component : Air Conditioning Distribution 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 Not Flying  
Qualification.Flight Crew : Air Transport Pilot (ATP)  
Experience.Flight Crew.Total : 18000  
Experience.Flight Crew.Last 90 Days : 125  
Experience.Flight Crew.Type : 4000  
ASRS Report Number.Accession Number : 1035755  
Human Factors : Workload  
Human Factors : Situational Awareness

Human Factors : Physiological - Other  
Human Factors : Time Pressure

## **Person : 2**

Reference : 2  
Location Of Person.Aircraft : X  
Location In Aircraft : Flight Deck  
Reporter Organization : Air Carrier  
Function.Flight Crew : First Officer  
Function.Flight Crew : Pilot Flying  
Experience.Flight Crew.Total : 18000  
Experience.Flight Crew.Last 90 Days : 235  
Experience.Flight Crew.Type : 4925  
ASRS Report Number.Accession Number : 1035747  
Human Factors : Workload  
Human Factors : Time Pressure  
Human Factors : Situational Awareness  
Human Factors : Physiological - Other

## **Person : 3**

Reference : 3  
Location Of Person.Aircraft : X  
Location In Aircraft : Flight Deck  
Reporter Organization : Air Carrier  
Function.Flight Crew : Pilot Not Flying  
Function.Flight Crew : Relief Pilot  
Experience.Flight Crew.Total : 14500  
Experience.Flight Crew.Last 90 Days : 200  
Experience.Flight Crew.Type : 5600  
ASRS Report Number.Accession Number : 1035768  
Human Factors : Time Pressure  
Human Factors : Training / Qualification  
Human Factors : Workload  
Human Factors : Distraction  
Human Factors : Situational Awareness

## **Events**

Anomaly.Aircraft Equipment Problem : Critical  
Anomaly.Flight Deck / Cabin / Aircraft Event : Smoke / Fire / Fumes / Odor  
Anomaly.Deviation - Procedural : MEL  
Anomaly.Deviation - Procedural : Maintenance  
Detector.Person : Flight Crew  
When Detected : In-flight  
Result.General : Maintenance Action  
Result.General : Physical Injury / Incapacitation  
Result.General : Declared Emergency  
Result.Flight Crew : Landed in Emergency Condition  
Result.Flight Crew : Took Evasive Action  
Result.Flight Crew : Requested ATC Assistance / Clarification

## **Assessments**

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

### **Narrative: 1**

Had diverted enroute on the previous leg due to electrical odor on the aircraft. Had a STATUS MSG for CARGO VENT FAN. Maintenance determined it was an overheated cargo fan causing our electrical odor. Maintenance deferred fan unit and we continued flight to our filed destination. On approach Purser called cockpit to report electrical odor again in first class cabin area. We declared [an] emergency and made normal landing. Proceeded to gate after fire rescue again checked the aircraft and odor dissipated and offloaded passengers. Three flight attendants complain of headache, nausea, and scratchy throat. All three were treated by paramedics.

### **Narrative: 2**

[Narrative 2 has no additional information]

### **Narrative: 3**

As we turned to downwind from the north we received a call from the cabin the electrical odor was back. The Captain declared an emergency. We requested a right turn to land opposite direction. We donned O2 masks but did not have time to run any checklists. We landed uneventfully and taxied clear and stopped. We coordinated with Fire and Rescue and Company Maintenance. After our landing the Purser called and said the odor had dissipated.

### **Synopsis**

After previously diverting en route for an odor and with the Cargo Fan MELED, the flight continued to the filed destination where on approach the odor returned. So an emergency was declared and the crew donned oxygen masks for a short approach. Several flight attendants reported being ill.

## Time / Day

Date : 201209  
Local Time Of Day : 1201-1800

## Place

Locale Reference.ATC Facility : ZZZ.ARTCC  
State Reference : US  
Altitude.MSL.Single Value : 38000

## Environment

Flight Conditions : VMC  
Light : Daylight

## Aircraft

Reference : X  
ATC / Advisory.Center : ZZZ  
Aircraft Operator : Air Carrier  
Make Model Name : B777-200  
Crew Size.Number Of Crew : 3  
Operating Under FAR Part : Part 121  
Flight Plan : IFR  
Mission : Passenger  
Flight Phase : Cruise  
Route In Use : Oceanic  
Airspace.Class A : 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 Not Flying  
Qualification.Flight Crew : Air Transport Pilot (ATP)  
Experience.Flight Crew.Total : 18000  
Experience.Flight Crew.Last 90 Days : 125  
Experience.Flight Crew.Type : 4000  
ASRS Report Number.Accession Number : 1035746  
Human Factors : Training / Qualification  
Human Factors : Troubleshooting  
Human Factors : Situational Awareness  
Human Factors : Distraction  
Human Factors : Time Pressure

## Person : 2

Reference : 2  
Location Of Person.Aircraft : X  
Location In Aircraft : Flight Deck  
Reporter Organization : Air Carrier  
Function.Flight Crew : First Officer  
Function.Flight Crew : Pilot Flying  
Experience.Flight Crew.Total : 18000  
Experience.Flight Crew.Last 90 Days : 235  
Experience.Flight Crew.Type : 4925  
ASRS Report Number.Accession Number : 1035772  
Human Factors : Troubleshooting  
Human Factors : Training / Qualification  
Human Factors : Time Pressure  
Human Factors : Situational Awareness

### **Person : 3**

Reference : 3  
Location Of Person.Aircraft : X  
Location In Aircraft : Flight Deck  
Reporter Organization : Air Carrier  
Function.Flight Crew : Pilot Not Flying  
Function.Flight Crew : Relief Pilot  
Experience.Flight Crew.Total : 14500  
Experience.Flight Crew.Last 90 Days : 200  
Experience.Flight Crew.Type : 5600  
ASRS Report Number.Accession Number : 1035778

### **Events**

Anomaly.Aircraft Equipment Problem : Critical  
Anomaly.Flight Deck / Cabin / Aircraft Event : Smoke / Fire / Fumes / Odor  
Detector.Person : Flight Attendant  
Detector.Person : Flight Crew  
When Detected : In-flight  
Result.General : Declared Emergency  
Result.General : Maintenance Action  
Result.Flight Crew : Diverted  
Result.Flight Crew : Landed in Emergency Condition  
Result.Flight Crew : FLC complied w / Automation / Advisory

### **Assessments**

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

### **Narrative: 1**

Was in pilot crew bunk and smelled electrical odor same time got call from flight crew of odor in First Class Galley and First Class area. Turned off galley power and odor seemed to dissipate. All flight crew returned to cockpit. After returning to cockpit electrical odor was again noticed in cockpit and a call from Purser saying odor noticed again in First Class and Business cabin area. We elected to declare an emergency and divert. [We] went through smoke and fire checklist and made

normal landing. Electrical odor dissipated and aircraft was looked over by fire rescue when all clear we parked at gate.

### **Narrative: 2**

FL380 flight attendants in First Class Galley reported electrical odor. Exact location could not be found but seemed to spread into the Business Class Galley as well. The Captain was awakened from his break and a decision was made to divert. An emergency was declared and we were given a descent and a short approach. Emergency trucks did not observe any external indications of fire so passengers were kept in their seats and we made an uneventful taxi to the gate.

### **Narrative: 3**

I asked a Flight Attendant up on the flight deck so that I could go back and smell it myself. I walked into the galley and turned off the Master Galley Power and asked the other First Officer to wake up the Captain. The Captain and the two First Officers collectively decided to divert. The Captain declared an emergency and asked for vectors to an enroute airport. The Captain and the flying First Officer ran the appropriate checklists. I assisted with communication and approach charts. We accomplished a visual landing which was uneventful.

### **Synopsis**

B777 flight attendants and pilots detected an electrical odor in First and Business Classes so an emergency was declared and the flight diverted to an enroute airport for maintenance. The flight later continued on the same aircraft.

## Time / Day

Date : 201209  
Local Time Of Day : 0601-1200

## Place

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

## Environment

Flight Conditions : Marginal  
Light : Daylight

## 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 : 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 : 1035032  
Human Factors : Time Pressure  
Human Factors : Distraction  
Human Factors : Physiological - Other  
Human Factors : Situational Awareness  
Human Factors : Troubleshooting  
Analyst Callback : Attempted

## Events

Anomaly.Aircraft Equipment Problem : Critical  
Anomaly.Flight Deck / Cabin / Aircraft Event : Smoke / Fire / Fumes / Odor  
Anomaly.Flight Deck / Cabin / Aircraft Event : Illness  
Detector.Person : Flight Attendant

Detector.Person : Flight Crew  
When Detected : In-flight  
Result.General : Maintenance Action  
Result.General : Physical Injury / Incapacitation  
Result.General : Declared Emergency  
Result.Flight Crew : Landed in Emergency Condition  
Result.Flight Crew : Took Evasive Action  
Result.Flight Crew : Returned To Departure Airport

## **Assessments**

Contributing Factors / Situations : Aircraft  
Primary Problem : Aircraft

## **Narrative: 1**

Shortly after passing 10,000 FT in our climb, the Lead Flight Attendant called to inform us of a strong electrical smell in the forward galley area. Our conversation included old food in the ovens or coffee that had spilled onto the hot pad. In the cockpit, we only had a faint smell of cheap perfume or a weak solvent. The consensus was that the odor was dissipating after a few minutes, but 5-10 minutes later the Lead Flight Attendant called to say that she and 2 other flight attendants were experiencing respiratory distress (burning throats, irritated nasal passages) as well as irritated eyes. The First Officer and I didn't notice any irritation, but elected to go on oxygen as a precaution and declared an emergency and diverted back to the departure airport. The Lead Flight Attendant was cared for by a paramedic/passenger and then was cared for by paramedics that had met the aircraft at the gate. I don't know what caused the event, but the number one engine had been replaced and this was the first revenue flight for that engine. The IDG oil cooler on that same engine was also replaced during the same maintenance session. When cabin odor reports are submitted, an extensive checklist is followed to try to isolate the source of the odor. Why not use the same checklist to inspect the aircraft any time a piece is replaced that has a direct contact with the pneumatic system or air recirculation. One step further would be a requirement for a test flight.

## **Synopsis**

An A320 Lead Flight Attendant became ill after a strong electrical smell developed in the forward galley during climb, an emergency was declared and the flight returned to the departure airport.

## Time / Day

Date : 201209  
Local Time Of Day : 1201-1800

## Place

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

## Environment

Light : Daylight

## Aircraft

Reference : X  
ATC / Advisory.Ramp : ZZZ  
Aircraft Operator : Air Carrier  
Make Model Name : EMB ERJ 145 ER&LR  
Crew Size.Number Of Crew : 2  
Operating Under FAR Part : Part 121  
Flight Plan : IFR  
Mission : Passenger  
Flight Phase : Parked

## Component : 1

Aircraft Component : APU  
Aircraft Reference : X  
Problem : Malfunctioning

## Component : 2

Aircraft Component : APU Fire/Overheat Warning  
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 : First Officer  
ASRS Report Number.Accession Number : 1034636  
Human Factors : Situational Awareness  
Human Factors : Training / Qualification  
Human Factors : Time Pressure

## Events

Anomaly.Aircraft Equipment Problem : Critical  
Anomaly.Flight Deck / Cabin / Aircraft Event : Smoke / Fire / Fumes / Odor  
Detector.Person : Observer  
When Detected : Pre-flight  
Result.General : Declared Emergency  
Result.General : Evacuated  
Result.Flight Crew : Took Evasive Action

## **Assessments**

Contributing Factors / Situations : Aircraft  
Primary Problem : Aircraft

## **Narrative: 1**

As the Captain and I were preparing for push back while at the gate during the boarding process, the APU failed. We smelled something burning. No EICAS message was presented. Almost immediately thereafter, a pilot from another crew told us our APU was on fire. The Captain called for an evacuation of the aircraft. The Flight Attendant immediately got everyone off the airplane and directed them back into the terminal. The Captain declared an emergency with Ground frequency and called for fire trucks. We ran the APU fire QRH and pushed the APU fire extinguishing button as per the QRH. The fire trucks additionally used external extinguishing aids. The fire was extinguished. Also, the APU had an MEL for an inoperative generator, which could be considered a threat since it required abnormal operation.

## **Synopsis**

An EMB-145 APU shutdown prior to pushback and subsequently a pilot informed them the APU as on fire so the aircraft was evacuated, an emergency declared, the QRH completed and the Fire Crew extinguished the fire.

## **Time / Day**

Date : 201209  
Local Time Of Day : 0601-1200

## **Place**

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

## **Environment**

Flight Conditions : IMC  
Light : Daylight

## **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 : Passenger  
Flight Phase : Climb  
Airspace.Class E : ZZZ

## **Component**

Aircraft Component : Recirculation Fan  
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 : Pilot Not Flying  
Function.Flight Crew : First Officer  
Qualification.Flight Crew : Air Transport Pilot (ATP)  
ASRS Report Number.Accession Number : 1034405  
Human Factors : Workload  
Human Factors : Troubleshooting  
Human Factors : Time Pressure  
Human Factors : Situational Awareness  
Human Factors : Training / Qualification  
Analyst Callback : Attempted

## **Person : 2**

Reference : 2  
Location Of Person.Aircraft : X  
Location In Aircraft : Flight Deck  
Reporter Organization : Air Carrier  
Function.Flight Crew : Pilot Flying  
Function.Flight Crew : Captain  
Qualification.Flight Crew : Air Transport Pilot (ATP)  
ASRS Report Number.Accession Number : 1034613  
Human Factors : Workload  
Human Factors : Troubleshooting  
Human Factors : Time Pressure  
Human Factors : Situational Awareness  
Human Factors : Training / Qualification  
Analyst Callback : Completed

## Events

Anomaly.Aircraft Equipment Problem : Critical  
Anomaly.Flight Deck / Cabin / Aircraft Event : Smoke / Fire / Fumes / Odor  
Detector.Automation : Aircraft Other Automation  
Detector.Person : Flight Attendant  
Detector.Person : Flight Crew  
When Detected : In-flight  
Result.General : Declared Emergency  
Result.General : Maintenance Action  
Result.Flight Crew : FLC complied w / Automation / Advisory  
Result.Flight Crew : Landed in Emergency Condition  
Result.Flight Crew : Took Evasive Action  
Result.Flight Crew : Returned To Departure Airport

## Assessments

Contributing Factors / Situations : Aircraft  
Primary Problem : Aircraft

## Narrative: 1

[We had] fumes in cockpit and forward cabin. [We] smelled strong odor of burning rubber and/or plastic shortly after takeoff. Captain gave control of aircraft to me (First Officer). Captain confirmed with A Flight Attendant same odor in forward cabin. Captain declared emergency with ATC and requested return to field for landing. Both pilots donned oxygen masks. Captain accomplished QRH procedure for SMOKE/FUMES. First Officer continued to fly aircraft to uneventful landing. Captain taxied aircraft to gate. Suspect equipment cooling failure.

## Narrative: 2

During climb at approximately 10,000 MSL, strong rubber, musty odor occurred. No smoke visible. Brief [was] given to flight attendants to return. During checklist for fume removal EICAS message for EQUIP COOLING OVHT with associated warning horn in E&E compartment could be heard. ATC vectored us for a very quick approach and landing. All checklists were completed just outside the marker and uneventful landing was made. Odor was gone during taxi, but Equip Cooling message still on and E&E warning horn could still be heard. IRS's turned off during taxi. Maintenance met aircraft, conversations with Maintenance, Customer Service, Scheduling, Dispatch and Chief Pilot were held over the next hour.

**Callback: 2**

The Reporter stated that a month prior to this event he and several of his crew became ill following exposure to a musky, dirty socks smell in flight. This event initially had an odd smell which, after several minutes, he determined it to be electrical in nature and not chemical. The emergency declaration he still felt was justified because the E&E horn indicated a cooling failure and an overheat which was verify by the EQUIP COOLING OVHT.

**Synopsis**

A B757-200 crew declared an emergency and returned to the departure airport when a strong rubber smell was detected after takeoff followed shortly by the EQUIP COOLING OVHT alert caused by a Recirculation Fan failure.

## Time / Day

Date : 201208  
Local Time Of Day : 0601-1200

## Place

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

## Environment

Flight Conditions : VMC

## Aircraft

Reference : X  
ATC / Advisory.Center : ZZZ  
Aircraft Operator : Air Carrier  
Make Model Name : MD-82  
Crew Size.Number Of Crew : 2  
Operating Under FAR Part : Part 121  
Flight Plan : IFR  
Mission : Passenger  
Flight Phase : Cruise  
Airspace.Class A : 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 : 1033796  
Human Factors : Troubleshooting

## Events

Anomaly.Flight Deck / Cabin / Aircraft Event : Smoke / Fire / Fumes / Odor  
Detector.Person : Flight Crew  
When Detected : In-flight  
Result.Flight Crew : Diverted  
Result.Flight Crew : Landed As Precaution

## Assessments

Contributing Factors / Situations : Aircraft  
Primary Problem : Aircraft

## Narrative: 1

Approximately 50 minutes into the flight we both started to smell fuel odor coming from the vents. We had been in level flight for at least ten minutes and had not made any turns or altitude changes. There are no applicable checklists for this situation so we called Maintenance Control and they advised us to shut off a pack and see if the odor was still there. We shut each pack off individually and the odor was still there. We called the Lead Flight Attendant into the cockpit and she confirmed the odor as well. She also said she could smell it in the forward galley although not as strong. About this time the First Officer said he was getting a little light headed (the odor seemed to be stronger on his side). We were approximately 90 miles from [a nearby suitable airport] so we made the decision to divert there.

## **Synopsis**

DC-9-82 Captain reported fuel fumes were noticeable in the cockpit and cabin so a decision was made to divert to the nearest suitable airport.

## Time / Day

Date : 201208  
Local Time Of Day : 1201-1800

## Place

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

## Environment

Flight Conditions : VMC  
Weather Elements / Visibility.Visibility : 10  
Light : Daylight  
Ceiling.Single Value : 10000

## Aircraft

Reference : X  
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 : Cruise  
Airspace.Class E : ZZZ

## Component

Aircraft Component : Fuselage Skin  
Aircraft Reference : X  
Problem : Malfunctioning

## Person

Reference : 1  
Location Of Person.Aircraft : X  
Location In Aircraft : Flight Deck  
Reporter Organization : Personal  
Function.Flight Crew : Pilot Flying  
Function.Flight Crew : Single Pilot  
Qualification.Flight Crew : Private  
Experience.Flight Crew.Total : 900  
Experience.Flight Crew.Last 90 Days : 10  
Experience.Flight Crew.Type : 250  
ASRS Report Number.Accession Number : 1033626

## Events

Anomaly.Aircraft Equipment Problem : Critical  
Anomaly.Flight Deck / Cabin / Aircraft Event : Smoke / Fire / Fumes / Odor  
Detector.Person : Flight Crew  
When Detected : In-flight  
Result.General : Declared Emergency  
Result.Flight Crew : Landed As Precaution  
Result.Flight Crew : Diverted

## **Assessments**

Contributing Factors / Situations : Aircraft  
Primary Problem : Aircraft

## **Narrative: 1**

[I had an] in-flight emergency. Exhaust directly entered cabin due to opening of fuselage floor pan directly behind exhaust pipes. Extreme heat and exhaust entered cabin causing a rapid degrading of cockpit conditions. Mayday called. [I] informed responders that landing will be made at closest airport.

## **Synopsis**

Pilot of an experimental aircraft reported declaring an emergency and diverting to nearest suitable airport when extreme heat and exhaust began entering cockpit from an opening in the fuselage floor pan.

## Time / Day

Date : 201208  
Local Time Of Day : 0601-1200

## Place

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

## Environment

Flight Conditions : VMC  
Light : Daylight

## Aircraft

Reference : X  
ATC / Advisory.TRACON : ZZZ  
Aircraft Operator : Air Carrier  
Make Model Name : B737-700  
Crew Size.Number Of Crew : 2  
Operating Under FAR Part : Part 121  
Flight Plan : IFR  
Mission : Passenger  
Flight Phase : Climb  
Airspace.Class E : 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 Not Flying  
Qualification.Flight Crew : Air Transport Pilot (ATP)  
Experience.Flight Crew.Last 90 Days : 240  
ASRS Report Number.Accession Number : 1033186  
Human Factors : Troubleshooting  
Human Factors : Situational Awareness  
Human Factors : Distraction  
Human Factors : Confusion  
Human Factors : Physiological - Other  
Analyst Callback : Completed

## Person : 2

Reference : 2  
Location Of Person.Aircraft : X  
Location In Aircraft : Flight Deck

Reporter Organization : Air Carrier  
Function.Flight Crew : First Officer  
Function.Flight Crew : Pilot Flying  
Experience.Flight Crew.Last 90 Days : 174  
Experience.Flight Crew.Type : 1200  
ASRS Report Number.Accession Number : 1033197  
Human Factors : Physiological - Other  
Human Factors : Distraction

## Events

Anomaly.Aircraft Equipment Problem : Less Severe  
Anomaly.Flight Deck / Cabin / Aircraft Event : Smoke / Fire / Fumes / Odor  
Detector.Person : Flight Crew  
Detector.Person : Flight Attendant  
Detector.Person : Maintenance  
When Detected : In-flight  
Result.General : Maintenance Action  
Result.General : Release Refused / Aircraft Not Accepted  
Result.Flight Crew : Landed As Precaution  
Result.Flight Crew : Took Evasive Action  
Result.Flight Crew : Returned To Departure Airport

## Assessments

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

## Narrative: 1

The APU was inoperative and we required a ground start unit. Starting Number 1 Engine first we got smoke and a very foul odor (smelled like dirty gym socks) in the flight deck. As soon as Number 1 [Engine] was started the smoke and smell began to decrease. We believed the cause was the start unit and continued with start of Number 2 [Engine]. We made a PA to the passengers indicating it was not the airplane, but the starting unit causing the smoke and smell. We advised Ground Operations to have the ground start unit checked. As we taxied out for takeoff, the flight deck and cabin improved, but did not completely clear of the foul odor. As we raised the landing gear after takeoff, we got a Master Caution, Flt Control and HYD annunciators. There were no lights overhead. Checking hydraulic indications and aircraft handling, everything was normal. Right about 10,000 FT the flight attendants called and said that during the takeoff and climb the cabin had gotten smoky and smelly again. I decided to return to the departure airport and advised Departure Control. The First Officer flew the aircraft and I ran the Smoke in Cabin Checklist, advised airport Ground Operations and passengers before returning to normal flight duties for approach and landing. We requested the fire equipment personnel observe the airplane as we landed for any indications of a problem. After clearing the runway, we checked with the flight attendants as to the cabin condition and were advised that it had gotten better. The smoke was mostly gone, but the bad smell was still there. As there were no indications of a continuing problem, we continued taxi into the gate. Maintenance met the aircraft and said the airplane really smelled bad as did the ground start unit. They also said they could smell an additional smell of hydraulics. We de-planed aircraft at gate and checked on the passengers to see if everyone was OK. No one indicated any problems. We

proceeded to a new gate and aircraft and continued on. I am not sure what could be done to prevent this in the future. If the ground start unit was in better condition, we would not have had the original smoke and smell issue. At this time I do not know what caused the return of smoke and smell to the cabin during and after takeoff or if there was any connection between this and the momentary hydraulic lights after raising the gear.

### **Callback: 1**

The Reporter reaffirmed the odor but believes that the smell was from the ground start unit which was particularly "stinky" during preflight and ground start. He did not know why the APU was MEL'ed. At the gate, maintenance personnel thought that a slight hydraulic fluid odor was present in the cabin. The hydraulic system abnormalities which illuminated the Master Caution were momentary and all returned to normal during the return to the departure airport. Maintenance found no hydraulic system anomalies.

### **Narrative: 2**

Masks were donned and I leveled the aircraft at 12,000 FT while the Captain informed ATC that we would need to return to the airport. The Captain initiated checklist items for smoke and fumes as I coordinated with ATC for return to the departure airport. Fumes appeared to dissipate during the approach. Approach, landing, and return to gate were uneventful.

### **Synopsis**

A B737-700 developed a dirty gym socks odor during engine start which cleared somewhat. After takeoff as the landing gear was raised, momentary Master Caution, FLT CTL, and HYD annunciators were seen with no secondary indications. During climb, the odor reoccurred and the aircraft was returned to the departure airport.

## Time / Day

Date : 201208  
Local Time Of Day : 0001-0600

## Place

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

## Environment

Light : Night

## Aircraft

Reference : X  
ATC / Advisory.Center : ZZZ  
Aircraft Operator : Air Carrier  
Make Model Name : MD-83  
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

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 : 1032498  
Human Factors : Distraction  
Human Factors : Physiological - Other  
Human Factors : Time Pressure  
Analyst Callback : Attempted

## Events

Anomaly.Aircraft Equipment Problem : Critical  
Anomaly.Flight Deck / Cabin / Aircraft Event : Smoke / Fire / Fumes / Odor  
Detector.Person : Passenger  
Detector.Person : Flight Crew  
Detector.Person : Flight Attendant  
When Detected : In-flight  
Result.General : Maintenance Action

Result.General : Declared Emergency  
Result.Flight Crew : Landed in Emergency Condition  
Result.Flight Crew : Returned To Departure Airport

## **Assessments**

Contributing Factors / Situations : Aircraft  
Primary Problem : Aircraft

## **Narrative: 1**

On departure climb out at 8,000 the First Officer and I noticed a strong electric burning smell. Shortly thereafter we heard commotion (movement and yells) in the cabin of the aircraft followed by multiple call button tones from passengers. The #3 Flight Attendant called the cockpit and notified us that passengers were yelling there was smoke and it smelled like electrical fire. She reported: The smoky area was isolated in the center portion of the cabin (row 20). She had initially thought it was condensation, but after getting closer (she went to row 20) it was obvious to be smoke and burnt electrical. We notified ATC and leveled the aircraft at 11,000, the smell began to dissipate, but there was still an electrical smell lingering. At this point, the First Officer and I deemed that the smoke or smell was not strong enough in the cockpit area to don oxygen masks or goggles. Also, due to the smoke and smell dissipation, I determined the QRH procedure was not required. I verified the reports twice with the # 1 Flight Attendant and also verified that the smoke and smell was dissipating. At this point, I determined and conferred with the First Officer that the best course of action was to return to the airport. I declared an emergency with ATC, notified the #1 Flight Attendant, briefed the passengers, and notified Company we were returning. Upon inspection by Maintenance, the problem was isolated to a blown/burned light ballast in row 20. Side note: After arriving, I was informed by Maintenance that this was not the first occasion with our aircraft fleet and that it could (a theory) be related to the 166 seat conversion wiring. Of course this was theory, but seemed worthy of noting.

## **Synopsis**

Shortly after takeoff a MD-83 crew and passengers detected a strong electrical burning smell with smoke in the cabin, so an emergency was declared and the flight returned to the departure airport where a burnt florescent light ballast was found in row 20.

## Time / Day

Date : 201208  
Local Time Of Day : 0001-0600

## Place

Locale Reference.Airport : ZZZ.Airport  
State Reference : US  
Altitude.MSL.Single Value : 11000

## Environment

Flight Conditions : VMC

## Aircraft

Reference : X  
ATC / Advisory.TRACON : ZZZ  
Aircraft Operator : Air Carrier  
Make Model Name : A319  
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 : Air Conditioning and Pressurization Pack  
Aircraft Reference : X  
Problem : Malfunctioning

## Person

Reference : 1  
Location Of Person.Aircraft : X  
Location In Aircraft : Flight Deck  
Reporter Organization : Air Carrier  
Function.Flight Crew : Pilot Not Flying  
Function.Flight Crew : First Officer  
ASRS Report Number.Accession Number : 1032392

## Events

Anomaly.Aircraft Equipment Problem : Critical  
Anomaly.Flight Deck / Cabin / Aircraft Event : Smoke / Fire / Fumes / Odor  
Anomaly.Conflict : Airborne Conflict  
Detector.Automation : Aircraft TA  
Detector.Person : Flight Crew  
Were Passengers Involved In Event : N  
When Detected : In-flight

Result.General : Declared Emergency  
Result.Flight Crew : Returned To Departure Airport

## **Assessments**

Contributing Factors / Situations : Aircraft  
Primary Problem : Aircraft

## **Narrative: 1**

During our initial climb the Captain and I noticed a strange sound. Shortly thereafter, a Flight Attendant called the cockpit to complain about smoke in the cabin. While the Captain was speaking with the Flight Attendant, we received a TA about VFR traffic as we were leveling off at 11,000. (A distraction since it was 500 FT above us and the aircraft was telling us to 'adjust vertical speed') and determined at the same time that we needed to declare an emergency and return to the airport to land on runway 19L. I prepared the FMS while the Captain flew the aircraft to an uneventful landing. After landing, we had a PACK OVERHEAT ECAM and I performed the actions requested by the ECAM. Fire rescue personnel inspected the exterior of the aircraft and noted nothing unusual. We then taxied to gate 3.

## **Synopsis**

An A319 flight crew declared an emergency and returned to their departure airport when a Flight Attendant reported smoke in the cabin shortly after takeoff.

## Time / Day

Date : 201208  
Local Time Of Day : 1201-1800

## Place

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

## Environment

Flight Conditions : VMC  
Light : Daylight  
Ceiling : CLR

## Aircraft

Reference : X  
Aircraft Operator : Air Carrier  
Make Model Name : EMB ERJ 145 ER&LR  
Crew Size.Number Of Crew : 2  
Operating Under FAR Part : Part 121  
Mission : Passenger  
Flight Phase : Parked

## Component

Aircraft Component : Hydraulic System Lines, Connectors, Fittings  
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 : First Officer  
Function.Flight Crew : Pilot Flying  
Qualification.Flight Crew : Air Transport Pilot (ATP)  
ASRS Report Number.Accession Number : 1030484

## Events

Anomaly.Aircraft Equipment Problem : Critical  
Anomaly.Flight Deck / Cabin / Aircraft Event : Smoke / Fire / Fumes / Odor  
Detector.Person : Passenger  
Detector.Person : Ground Personnel  
When Detected : Taxi  
Result.General : Declared Emergency

## **Assessments**

Contributing Factors / Situations : Aircraft

Primary Problem : Aircraft

## **Narrative: 1**

After landing we taxied to the ramp and smoke was seen by passengers from the left side of the aircraft. The ramp personnel marshaled the aircraft to park and we were advised that smoke was coming out from the left main landing gear.

Immediately we deplaned passengers and crew. The Captain walked around the airplane and we were met by the fire and emergency [crew]. The Captain noticed that hydraulic fluid was coming out the lines and fire and smoke [was visible].

## **Synopsis**

Passengers and ground personnel noticed smoke coming from the left main gear of an EMB-145 while parking at the gate. Passengers were quickly deplaned and CFR crews responded promptly to the affected area, where a hydraulic leak was found.

## Time / Day

Date : 201208  
Local Time Of Day : 1801-2400

## Place

Locale Reference.Airport : ZZZ.Airport  
State Reference : US  
Altitude.MSL.Single Value : 36000

## Environment

Flight Conditions : VMC  
Light : Dusk

## Aircraft

Reference : X  
ATC / Advisory.Center : ZZZ  
Aircraft Operator : Air Carrier  
Make Model Name : B767-200  
Crew Size.Number Of Crew : 3  
Operating Under FAR Part : Part 121  
Flight Plan : IFR  
Mission : Passenger  
Flight Phase : Cruise  
Airspace.Class A : ZZZ

## Component

Aircraft Component : Recirculation Fan  
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 Not Flying  
Qualification.Flight Crew : Air Transport Pilot (ATP)  
ASRS Report Number.Accession Number : 1029909  
Human Factors : Troubleshooting

## Events

Anomaly.Aircraft Equipment Problem : Critical  
Anomaly.Flight Deck / Cabin / Aircraft Event : Smoke / Fire / Fumes / Odor  
Detector.Person : Flight Crew  
When Detected : In-flight

Result.General : Maintenance Action  
Result.General : Declared Emergency  
Result.Flight Crew : Diverted  
Result.Flight Crew : Landed As Precaution  
Result.Air Traffic Control : Issued New Clearance  
Result.Aircraft : Equipment Problem Dissipated

## **Assessments**

Contributing Factors / Situations : Aircraft  
Primary Problem : Aircraft

## **Narrative: 1**

Shortly after takeoff, a Flight Attendant called the cockpit to report a smoke/burning smell. I did not smell it, but my First Officer did smell it faintly and described it as a sweet burning smell. I sent the Relief Pilot to the cabin to investigate. He reported back to me that yes he did smell a faint odor but it was going away. He interviewed some of the passengers and the consensus was a sweet burning smell. After he returned to the cockpit I went to the cabin to do my own investigation. I smelled nothing out of the ordinary during my time in the cabin. Some of the passengers I interviewed claimed that the smell had come in waves; others said that the smell was gone. In absence of any current unusual smells I decided to continue the flight. I instructed the flight attendants to periodically monitor the cabin and many of the passengers assured me they would get a message to me if the smell came back. Just under an hour into the flight I and my First Officer saw and smelled heavy smoke in the cockpit. We immediately donned our oxygen masks and I declared an emergency along with my intentions to divert immediately. Shortly into our diversion the smoke began to subside and approximately five minutes later we noticed the EICAS displayed a RIGHT REIRC FAN message. As this was going to be an overweight landing and my First Officer was low time in the aircraft, I assumed pilot flying duties. As we flew the smoke subsided and we removed our oxygen masks. I began getting a slight headache and decided to stay on oxygen for the remainder of the flight. I performed an uneventful overweight landing. The cause of the first smoke smell remains a mystery. The second smoke smell was most likely caused by the burning up of the right recirculation fan.

## **Synopsis**

B767 Captain is informed of a sweet burning smell in the cabin shortly after takeoff. The smell is very faint and quickly dissipates. One hour into the flight more vigorous smoke is detected in the cockpit and the flight diverts to the nearest suitable airport. The smoke began to subside and approximately five minutes later the EICAS displayed a RIGHT REIRC FAN message.

## Time / Day

Date : 201208  
Local Time Of Day : 1201-1800

## Place

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

## Environment

Flight Conditions : VMC  
Light : Daylight

## Aircraft

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

## 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  
Qualification.Flight Crew : Air Transport Pilot (ATP)  
Experience.Flight Crew.Last 90 Days : 226  
ASRS Report Number.Accession Number : 1029581

## Events

Anomaly.Aircraft Equipment Problem : Critical  
Anomaly.Flight Deck / Cabin / Aircraft Event : Smoke / Fire / Fumes / Odor  
Detector.Person : Flight Crew  
When Detected : Taxi  
Result.General : Declared Emergency  
Result.General : Maintenance Action  
Result.Flight Crew : Returned To Gate

## Assessments

Contributing Factors / Situations : Aircraft  
Primary Problem : Aircraft

**Narrative: 1**

On taxi out, ENG 1 overheat light illuminated. Consulted the QRH (shut off engine and discharged fire bottle) and returned to gate. For safety declared emergency and equipment followed. Cockpit indications [were] all normal except ENG 1 overheat light. Outside reported engine normal as we taxied to gate.

**Synopsis**

B737-700 Captain reported that engine #1 overheat light illuminated on taxi out. Engine was shut down, fire bottle discharged, and flight returned to gate.

## Time / Day

Date : 201208  
Local Time Of Day : 0601-1200

## Place

Locale Reference.Airport : ZZZ.Airport  
State Reference : US  
Relative Position.Distance.Nautical Miles : 5  
Altitude.MSL.Single Value : 10000

## Environment

Flight Conditions : VMC  
Weather Elements / Visibility.Visibility : 10  
Light : Daylight  
Ceiling.Single Value : 15000

## Aircraft

Reference : X  
ATC / Advisory.TRACON : ZZZ  
Aircraft Operator : Corporate  
Make Model Name : Cessna Super Skywagon/Super Skylane  
Crew Size.Number Of Crew : 1  
Operating Under FAR Part : Part 91  
Flight Plan : IFR  
Mission : Passenger  
Flight Phase : Cruise  
Route In Use : Direct  
Airspace.Class E : ZZZ

## Component

Aircraft Component : Communication Systems  
Aircraft Reference : X  
Problem : Failed

## Person

Reference : 1  
Location Of Person.Aircraft : X  
Location In Aircraft : Flight Deck  
Reporter Organization : Corporate  
Function.Flight Crew : Pilot Flying  
Function.Flight Crew : Single Pilot  
Qualification.Flight Crew : Instrument  
Experience.Flight Crew.Total : 400  
Experience.Flight Crew.Last 90 Days : 50  
Experience.Flight Crew.Type : 60  
ASRS Report Number.Accession Number : 1029433

## Events

Anomaly.Aircraft Equipment Problem : Critical  
Anomaly.Flight Deck / Cabin / Aircraft Event : Smoke / Fire / Fumes / Odor  
Detector.Person : Flight Crew  
Were Passengers Involved In Event : Y  
When Detected : In-flight  
Result.General : Maintenance Action  
Result.Flight Crew : Landed As Precaution  
Result.Flight Crew : Diverted

## Assessments

Contributing Factors / Situations : Aircraft  
Primary Problem : Aircraft

## Narrative: 1

I was conducting a flight of a patient and her spouse. We were on an IFR plan with initial northerly vectors out of the Class B. We were given direct to a fix then on course, having just leveled at 10,000 and having just exited the Class B. I lost all audio in the headsets. I switched the intercom to the emergency setting and regained audio. I attempted to contact ATC to advise. I saw the transmit symbol come active on Comm 1 when I keyed the mike but heard no side tone and received no response. I then smelled something burning - smelled like phenolic, such as when a PC board is melting. I blind broadcasted my intention to divert to the nearest airport - and my intention to commence an emergency descent. Within 5 seconds of the transmission attempts smoke began to enter the cockpit. I shut down all avionics immediately. At this point I thought I was going to be dealing with a cockpit fire. I unlatched the extinguisher between the seats and increased the descent rate to maximum. I took off the headsets and briefed the two passengers, advising that the aircraft engine was fine and that we would be making a rapid landing and that while the rate of descent would be uncomfortable, we would be OK. If I had possessed a functioning radio at this point, I would have declared an emergency.

I reached ZZZ still at about 7,000 FT and commenced a steep spiral over the approach point. The smoke seemed to have stopped, but I decided to consider the likelihood of a fire to be imminent and continued the rapid descent. I had a bit of time so I retrieved a handheld comm and attempted to broadcast on the ATC frequency, and then on the CTAF. I heard no response on either. I had a good opportunity to observe traffic as I descended. There was one C172 in the pattern. About 2,500 FT I elected to swing out to perform a normal downwind pattern entry. This was completed without event and the landing was normal. I turned off at the first taxiway, got clear of the active and shut the aircraft down. We immediately exited the aircraft. There was no sign of smoke or further trouble. I retrieved a handheld comm and attempted to raise Approach. No luck with that. I was assisted by the good people at the FBO on the field. They led me to a phone and I phoned the number for ATC. I spoke with a controller and I informed her that we had to divert and that we were safely on the ground. I believe this call was made within 10 minutes of the landing.

Things I learned - The intercom panel had a minute of abnormal operation en route on the first leg. I advised ATC of this issue. The panel then resumed normal operation. I checked it out on the ground and it was OK. In retrospect I should

have been more suspicious of that component. It functioned during the climb and for the first couple of minutes of cruise. I then heard a rhythmic thumping that I thought was the avionics fan failing. I now believe it was the intercom panel dying and the thumping was probably something I heard through the headsets. It was a low frequency sound and it seemed to be coming from everywhere at once. When the intercom panel ceased operating normally, I should have elected to divert. This would have gotten us on the ground 3 or 4 minutes earlier and perhaps would have allowed me to communicate with ATC. Also, although I had a handheld comm in the front of the plane, I did not have the jacks allowing it to be used with the headset. I attempted to use the comm without the headset. I do not know if any of my transmissions were received because I could not hear any response. I think it would be advisable to simply leave the converter jacks plugged into the handheld comm at all times. I think it would also be advisable to have an antenna jack installed in the aircraft that would allow the handheld to use the aircraft antenna. An avionics tech on the field pulled the stack and I have learned that the problem did indeed lie in the intercom panel. The power supply failed and melted part of the board. This was the origin of the acrid smoke. The cooling fan was fine. Once the avionics power was cut there was likely little risk of a fire. Had it remained on, who knows? I was aided in my decision to quickly cut avionics power by the fact that I did not appear to be able to use the radios anyway. Like most folks I use an iPad in cockpit now. I did not have a paper AFD with me. It is very important to have quick access to a phone number for ATC. I started by calling the 1-800-WX-BRIEF line but got frustrated with the robovoice labyrinth. I was very glad to be able to find a paper directory in the FBO facility.

## **Synopsis**

C206 pilot at 10,000 FT experiences communications failure followed shortly by a burning electrical smell and smoke. All avionics are shut down and the reporter commences and emergency descent to the closest airport. During the descent the smoke begins to dissipate and a safe landing ensues.

## **Time / Day**

Date : 201208  
Local Time Of Day : 0601-1200

## **Place**

Locale Reference.ATC Facility : ZZZ.ARTCC  
State Reference : US  
Altitude.MSL.Single Value : 17000

## **Environment**

Flight Conditions : VMC  
Light : Daylight

## **Aircraft**

Reference : X  
ATC / Advisory.Center : ZZZ  
Aircraft Operator : Fractional  
Make Model Name : Cessna Citation Sovereign (C680)  
Crew Size.Number Of Crew : 2  
Operating Under FAR Part : Part 91  
Flight Phase : Descent  
Airspace.Class E : ZZZ

## **Component**

Aircraft Component : Pylon Fasteners & Latches  
Aircraft Reference : X  
Problem : Improperly Operated

## **Person : 1**

Reference : 1  
Location Of Person.Aircraft : X  
Location In Aircraft : Flight Deck  
Reporter Organization : Fractional  
Function.Flight Crew : Captain  
Function.Flight Crew : Pilot Flying  
Qualification.Flight Crew : Air Transport Pilot (ATP)  
ASRS Report Number.Accession Number : 1029202  
Human Factors : Other / Unknown

## **Person : 2**

Reference : 2  
Location Of Person.Aircraft : X  
Location In Aircraft : Flight Deck  
Reporter Organization : Fractional  
Function.Flight Crew : Captain  
Function.Flight Crew : Pilot Not Flying

Qualification.Flight Crew : Air Transport Pilot (ATP)  
ASRS Report Number.Accession Number : 1029205  
Human Factors : Other / Unknown

## Events

Anomaly.Aircraft Equipment Problem : Critical  
Anomaly.Flight Deck / Cabin / Aircraft Event : Smoke / Fire / Fumes / Odor  
Detector.Person : Flight Crew  
When Detected : In-flight  
Result.General : Declared Emergency  
Result.General : Maintenance Action  
Result.Flight Crew : Landed in Emergency Condition  
Result.Flight Crew : Diverted  
Result.Aircraft : Aircraft Damaged

## Assessments

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

## Narrative: 1

I was the SIC, and we picked the plane up at the service center. I was pilot flying and occupying the left seat. We were ferrying the plane to pick up a passenger. Pre-flight, engine start, taxi, take-off, climb, and all related checklists were normal. On descent to 17,000 FT, and passing FL190, we heard a muffled bang. There was a shudder followed by continuous vibration. I immediately began to reduce power to slow down. There were no CAS messages displayed and engine instruments and pressurization all remained normal. We decided that the Captain would call the company and I would fly and communicate with ATC. Center gave us a further descent to 11,000. Maintenance decided we needed to divert. I informed Center of the change of destination. They wanted us to climb to 14,000 FT for the new route. Climbing through 12,000 we both noticed a funny odor and the vibration was getting worse. I requested a level off at 12,000 and that was granted. We proceeded to a divert station, declaring an emergency due to vibration from an unknown source. We configured early in case there was an issue with the gear or flaps. We landed without incident and taxied off and clear of the runway and came to a stop close to the emergency vehicles. We had contact with them and they told us we had significant damage to our right engine. We shut down right there and were later towed to the Service Center. We found much of the underside cowling of the right engine missing.

## Narrative: 2

I was PIC and was pilot not flying for this day's legs. The First Officer accomplished an exterior inspection while I got the flight plan for this leg and the next leg and the plane was fueled. Nothing unusual was noted on the exterior and interior preflight except for a low oil message on the right engine. I went back into the hangar and ask that 1/2 quart be added to the engine. After insuring that the oil was added and the oil service was closed I walked around the aircraft to insure that every thing was locked/latched. Nothing was noted. Takeoff [before sunrise], climb out (to FL370), and cruise were normal. During descent, between FL180 and 17,000, we both heard a loud bang followed by a low vibration and rumbling. We

checked all the systems and the engine indications and everything was normal. We both discussed the situation and decided that I would call Maintenance and the Assistant Chief Pilot. The First Officer took over communication in addition to his flying duties. During the call Maintenance and the Assistant Chief Pilot decided that we should divert. I was put in contact with Dispatch and our release was amended. While I was obtaining the new release, the First Officer told Center that we needed to divert.

Our main concern was that we had a gear problem even though all indications were normal. When I finished the call to Headquarters I took over pilot not flying duties. We were handed off to another Center Frequency and I declared an emergency. When I contacted Approach I again declared an emergency. By this time all the checklist were accomplished and we were cleared for an ILS at our divert station. The First Officer started configuring early, flap and gear extension were normal. Landing was normal but as we retracted the thrust reversers we got an engine control fault R CAS message. After we cleared the runway we stopped so the fire trucks could inspect the airplane. As they looked at the airplane it was recommended that we shut down engines because we had extensive damage to the right engine. We shut the engines and the rest of the airplane down and exited, normally, to look at the right engine. That was when we saw that most of the bottom of the right engine cowling was missing. I contacted Headquarters and we waited for Cessna to come to inspect the engine. After the inspection we were towed to the Service Center.

## **Synopsis**

CE680 flight crew experiences a loud bang followed by a low vibration and rumbling during descent for landing. All indications in the cockpit are normal but the crew diverts for maintenance at the company's request. Post flight revealed that most of the bottom of the right engine cowling was missing.

## Time / Day

Date : 201208  
Local Time Of Day : 1801-2400

## Place

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

## Environment

Flight Conditions : VMC  
Light : Night

## Aircraft

Reference : X  
ATC / Advisory.Ramp : ZZZ  
Aircraft Operator : Air Carrier  
Make Model Name : A320  
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 : General Seating Area  
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 : 1029058  
Human Factors : Communication Breakdown  
Human Factors : Physiological - Other  
Human Factors : Time Pressure  
Communication Breakdown.Party1 : Flight Crew  
Communication Breakdown.Party2 : Dispatch  
Analyst Callback : Attempted

## Events

Anomaly.Flight Deck / Cabin / Aircraft Event : Smoke / Fire / Fumes / Odor  
Anomaly.Deviation - Procedural : Hazardous Material Violation  
Detector.Person : Flight Crew  
Detector.Person : Flight Attendant  
Were Passengers Involved In Event : Y

When Detected : Aircraft In Service At Gate  
Result.General : Release Refused / Aircraft Not Accepted  
Result.General : Flight Cancelled / Delayed

## **Assessments**

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

## **Narrative: 1**

Inbound aircraft to make up our flight had a companion dog that vomited and defecated multiple times. Stench quickly traveled throughout aircraft. Dog defecated in jet way as it was deplaning. Cleaners attempted to disinfect and cleanup the problem. When my crew boarded the aircraft, the fumes from the cleaning fluid were very intense. Flight Attendant thought she was getting a headache from the odors. My evaluation of the situation was that the fumes were way too strong to allow passenger operations. The cleaners had used a cleaning product called "Aero Clean X-200." The label on the bottle says in part, "Vapors may cause central nervous system depression, headache, and dizziness..." I had to refuse the airplane for passenger operations. While all along the company kept lying to me saying there were no other aircraft available in a maintenance base and major hub, at night with multiple overnight airplanes. When I refused the airplane, amazingly there was another airplane available. Unnecessary 2 hour delay.

## **Synopsis**

A Companion Dog on an A320 became ill and loose boweled, requiring a potentially toxic cleaning agent to clean up. The crew refused aircraft for flight because of fumes.

## Time / Day

Date : 201206  
Local Time Of Day : 1201-1800

## Place

Locale Reference.Airport : ZZZ.Airport  
State Reference : US  
Altitude.MSL.Single Value : 41000

## Environment

Flight Conditions : VMC  
Light : Daylight

## Aircraft

Reference : X  
ATC / Advisory.Center : ZZZ  
Aircraft Operator : Corporate  
Make Model Name : B737 Undifferentiated or Other Model  
Crew Size.Number Of Crew : 2  
Operating Under FAR Part : Part 91  
Flight Plan : IFR  
Mission : Test Flight  
Flight Phase : Cruise  
Route In Use : Direct  
Airspace.Class A : ZZZ

## Person : 1

Reference : 1  
Location Of Person.Aircraft : X  
Location In Aircraft : Flight Deck  
Reporter Organization : Corporate  
Function.Flight Crew : First Officer  
Function.Flight Crew : Pilot Not Flying  
Qualification.Flight Crew : Air Transport Pilot (ATP)  
Qualification.Flight Crew : Flight Instructor  
Experience.Flight Crew.Total : 6198  
Experience.Flight Crew.Last 90 Days : 22  
ASRS Report Number.Accession Number : 1028718

## Person : 2

Reference : 2  
Location Of Person.Aircraft : X  
Location In Aircraft : Flight Deck  
Reporter Organization : Corporate  
Function.Flight Crew : Captain  
Function.Flight Crew : Pilot Flying

Qualification.Flight Crew : Multiengine  
Qualification.Flight Crew : Air Transport Pilot (ATP)  
Qualification.Flight Crew : Flight Engineer  
Experience.Flight Crew.Total : 5000  
Experience.Flight Crew.Last 90 Days : 100  
Experience.Flight Crew.Type : 1200  
ASRS Report Number.Accession Number : 1029768

## Events

Anomaly.Flight Deck / Cabin / Aircraft Event : Smoke / Fire / Fumes / Odor  
Detector.Person : Observer  
Detector.Person : Flight Crew  
Were Passengers Involved In Event : Y  
When Detected : In-flight  
Result.General : Declared Emergency  
Result.Flight Crew : Landed As Precaution

## Assessments

Contributing Factors / Situations : Aircraft  
Primary Problem : Aircraft

## Narrative: 1

During climb, the Captain noted a smell similar to a "rub strip" odor; normal during a 737 first flight. Because this was a first flight and no secondary indications were noted, we continued climb. Neither I nor other flight personnel initially smelled the odor. Later in the climb, other crewmembers also began to faintly smell the same odor. After cruise, the faint odor was again noted and seemed to intermittently dissipate.

After completing high altitude checks and entering the lower altitude block of 14,000-16,000 FT, the Flight Analyst came forward to announce that he could smell fumes in the flight deck but not in the aft passenger cabin. The Captain and I elected to don oxygen masks for the remainder of the flight. At that point, the crew elected to terminate further flight checks and return to the airport. We also ran appropriate checklists.

While being vectored for final approach, we declared an emergency with Approach Control for priority handling and an uneventful approach and landing ensued. The fumes and actions taken were fully described during debrief with Quality Assurance and Maintenance.

## Narrative: 2

[Narrative #2 contained no additional information.]

## Synopsis

A B-737 flight test crew declared an emergency, donned oxygen masks, and returned to their departure airport due to recurring fumes in the cockpit.

## Time / Day

Date : 201207  
Local Time Of Day : 1201-1800

## Place

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

## Environment

Flight Conditions : VMC  
Light : Daylight

## Aircraft

Reference : X  
ATC / Advisory.TRACON : ZZZ  
Aircraft Operator : Air Carrier  
Make Model Name : EMB ERJ 145 ER&LR  
Crew Size.Number Of Crew : 2  
Operating Under FAR Part : Part 121  
Flight Plan : IFR  
Mission : Passenger  
Flight Phase : 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 : 1026777  
Human Factors : Situational Awareness  
Human Factors : Time Pressure  
Human Factors : Workload  
Analyst Callback : Completed

## Events

Anomaly.Aircraft Equipment Problem : Less Severe  
Anomaly.Flight Deck / Cabin / Aircraft Event : Smoke / Fire / Fumes / Odor  
Detector.Person : Flight Attendant  
Detector.Person : Passenger  
When Detected : In-flight  
Result.General : Declared Emergency

Result.General : Release Refused / Aircraft Not Accepted

Result.General : Maintenance Action

Result.Flight Crew : Returned To Departure Airport

Result.Flight Crew : Took Evasive Action

Result.Flight Crew : Landed in Emergency Condition

## **Assessments**

Contributing Factors / Situations : Aircraft

Primary Problem : Aircraft

## **Narrative: 1**

At approximately 5,500 FT, the Flight Attendant called the cockpit to tell us there was smoke in the cabin and that other passengers see it as well around rows 12-17. At this time we asked to level off at 7,000 FT and declared an emergency. The Flight Attendant said that the smoke had disappeared but we continued with the emergency landing back at our departure airport. We were cleared for the visual Runway 28. Exited the runway and pulled into the pad for a visual inspection of the aircraft by the rescue team. They reported no outside issues to be noted and we continued to the gate, where we deplaned. It was an overweight landing by approximately 800 lbs.

## **Callback: 1**

The Reporter had not been told the smoke's source. Passengers reported different smells. One said an electrical odor, another reported a rubber smell. That aircraft was taken out of service and the crew continued the trip on another aircraft.

## **Synopsis**

An EMB145 crew declared an emergency and returned to the departure airport after the Flight Attendant reported cabin smoke during the climb after takeoff. The smoke's odor was described as rubber or electrical in nature.

## Time / Day

Date : 201207  
Local Time Of Day : 0001-0600

## Place

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

## Environment

Flight Conditions : IMC  
Weather Elements / Visibility : Thunderstorm

## Aircraft

Reference : X  
Aircraft Operator : Air Carrier  
Make Model Name : MD-11  
Crew Size.Number Of Crew : 2  
Operating Under FAR Part : Part 121  
Flight Phase : Taxi

## 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 : 1025922

## Events

Anomaly.Aircraft Equipment Problem : Critical  
Anomaly.Flight Deck / Cabin / Aircraft Event : Smoke / Fire / Fumes / Odor  
Detector.Person : Ground Personnel  
When Detected : Taxi  
Result.General : Flight Cancelled / Delayed  
Result.General : Maintenance Action

## Assessments

Contributing Factors / Situations : Aircraft  
Primary Problem : Aircraft

### **Narrative: 1**

During pushback and start of number one engine the starter disengaged at or around 38%. Fuel lever placed off. Captain called for abnormal engine start checklist. The ground mechanic said on ICS flames, fire on one, flames. I saw smoke out the left side of the aircraft drifting forward. Wind was from the south. Captain pulled the engine shutdown handle and discharged the bottle. Captain had me call for Fire/Rescue on Ramp Tower and Ground frequency. The smoke continued. Captain discharged second bottle. Emergency evacuation checklist was reviewed but not executed due the fire was determined out by fire/rescue. Captain elected to tow back into gate with concurrence of ramp/tower. Debrief conducted with ground crew telling us what they saw. A logbook entry was filled out.

### **Synopsis**

MD11 First Officer reports an early starter disengagement during pushback with the fuel lever placed to off. Fire is reported by the ground observer and the Captain pulls the the fire handle and discharges both fire bottles.

## Time / Day

Date : 201207  
Local Time Of Day : 1801-2400

## Place

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

## Environment

Light : Daylight

## Aircraft

Reference : X  
Aircraft Operator : Air Carrier  
Make Model Name : A300  
Crew Size.Number Of Crew : 2  
Operating Under FAR Part : Part 121  
Flight Plan : IFR  
Mission : Passenger  
Flight Phase : Parked

## Component

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

## Person

Reference : 1  
Location Of Person.Aircraft : X  
Location In Aircraft : Flight Deck  
Reporter Organization : Air Carrier  
Function.Flight Crew : Captain  
Function.Flight Crew : Pilot Flying  
Qualification.Flight Crew : Air Transport Pilot (ATP)  
ASRS Report Number.Accession Number : 1025555  
Human Factors : Troubleshooting  
Human Factors : Situational Awareness  
Analyst Callback : Completed

## Events

Anomaly.Flight Deck / Cabin / Aircraft Event : Smoke / Fire / Fumes / Odor  
Detector.Person : Flight Crew  
When Detected.Other  
Result.General : Maintenance Action  
Result.Flight Crew : Took Evasive Action

## **Assessments**

Contributing Factors / Situations : Aircraft

Primary Problem : Aircraft

### **Narrative: 1**

After shutdown during shutdown checks cockpit filled with acrid smoke. Crew opened windows to evacuate smoke. No engines were running nor was APU. Smoke cleared after about 3 minutes. Unknown what type of smoke. Maintenance thought possibly hydraulic fluid burning. Could not locate cause. Left aircraft for maintenance to check.

### **Callback: 1**

The Reporter stated that when Maintenance personnel entered the aircraft they recognized the glycol hydraulic fluid smell. Because no system faults were found, Maintenance guessed that after the cargo door was opened, Yellow System hydraulic fluid returned to the Green System causing a Green System over pressurization and that event released hydraulic fumes into the cargo area mixing with the air conditioning system. The reporter noticed a shortness of breath for about two days after the event and is now experiencing a cough about a month after the event. He has not sought medical attention.

### **Synopsis**

An A300 cockpit filled with an acrid smoke during post flight shutdown with no engines running, so Maintenance suspected a hydraulic malfunction.

## Time / Day

Date : 201207  
Local Time Of Day : 1201-1800

## Place

Locale Reference.Airport : ZZZ.Airport  
State Reference : US  
Altitude.MSL.Single Value : 9000

## Environment

Flight Conditions : VMC  
Light : Daylight

## Aircraft

Reference : X  
ATC / Advisory.TRACON : ZZZ  
Aircraft Operator : Air Carrier  
Make Model Name : MD-82  
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 : Air Conditioning and Pressurization Pack  
Aircraft Reference : X  
Problem : Malfunctioning

## Person : 1

Reference : 1  
Location Of Person.Aircraft : X  
Location In Aircraft : Flight Deck  
Reporter Organization : Air Carrier  
Function.Flight Crew : Captain  
Function.Flight Crew : Pilot Not Flying  
Qualification.Flight Crew : Air Transport Pilot (ATP)  
ASRS Report Number.Accession Number : 1025517  
Human Factors : Workload  
Analyst Callback : Attempted

## Person : 2

Reference : 2  
Location Of Person.Aircraft : X  
Location In Aircraft : Flight Deck

Reporter Organization : Air Carrier  
Function.Flight Crew : First Officer  
Function.Flight Crew : Pilot Flying  
ASRS Report Number.Accession Number : 1025521  
Analyst Callback : Attempted

## **Events**

Anomaly.Aircraft Equipment Problem : Critical  
Anomaly.Flight Deck / Cabin / Aircraft Event : Smoke / Fire / Fumes / Odor  
Detector.Person : Flight Crew  
Detector.Person : Flight Attendant  
When Detected : In-flight  
Result.General : Declared Emergency  
Result.General : Maintenance Action  
Result.General : Release Refused / Aircraft Not Accepted  
Result.Flight Crew : FLC complied w / Automation / Advisory  
Result.Flight Crew : Returned To Departure Airport  
Result.Flight Crew : Took Evasive Action  
Result.Flight Crew : Landed in Emergency Condition

## **Assessments**

Contributing Factors / Situations : Aircraft  
Primary Problem : Aircraft

## **Narrative: 1**

After takeoff [with] First Officer flying, smoke in cockpit followed by report of smoke in cabin. Declared emergency and returned to land overweight at 140,000 LBS. Upon landing, smoke had dissipated and returned to gate. Aircraft out of service and departed later on inbound aircraft. I had a very experienced First Officer along with another MD-80 Captain in the jumpseat that I had flown with as a First Officer. Jumpseater was very helpful to the both of us. The flight attendants were very experienced and did their jobs as required. The First Officer continued to fly while the jumpseater and I ran the checklist. On short final I took control of aircraft and made normal landing.

## **Narrative: 2**

On climb out, smelled slight pack odor. At approximately 9,000 FT, Flight Attendant called and said they had smoke in the cabin.

## **Synopsis**

A MD-82 cabin filled with smoke after takeoff, so an emergency was declared and the flight returned to the departure airport where the aircraft was removed from service.

## **Time / Day**

Date : 201207  
Local Time Of Day : 0601-1200

## **Place**

Locale Reference.Airport : ZZZ.Airport  
State Reference : US  
Altitude.AGL.Single Value : 300

## **Environment**

Flight Conditions : VMC  
Light : Daylight

## **Aircraft**

Reference : X  
ATC / Advisory.Tower : ZZZ  
Aircraft Operator : Fractional  
Make Model Name : Citation Excel (C560XL)  
Crew Size.Number Of Crew : 2  
Operating Under FAR Part : Part 91  
Mission : Passenger  
Flight Phase : Takeoff  
Airspace.Class C : ZZZ

## **Component : 1**

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

## **Component : 2**

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

## **Person : 1**

Reference : 1  
Location Of Person.Aircraft : X  
Location In Aircraft : Flight Deck  
Reporter Organization : Fractional  
Function.Flight Crew : First Officer  
Function.Flight Crew : Pilot Not Flying  
Qualification.Flight Crew : Air Transport Pilot (ATP)  
ASRS Report Number.Accession Number : 1025254

## **Person : 2**

Reference : 2  
Location Of Person.Aircraft : X  
Location In Aircraft : Flight Deck  
Reporter Organization : Fractional  
Function.Flight Crew : Captain  
Function.Flight Crew : Pilot Flying  
Qualification.Flight Crew : Air Transport Pilot (ATP)  
ASRS Report Number.Accession Number : 1025255

## Events

Anomaly.Aircraft Equipment Problem : Critical  
Anomaly.Flight Deck / Cabin / Aircraft Event : Smoke / Fire / Fumes / Odor  
Detector.Person : Flight Crew  
When Detected : In-flight  
Result.General : Declared Emergency  
Result.Flight Crew : Returned To Departure Airport  
Result.Flight Crew : Landed in Emergency Condition

## Assessments

Contributing Factors / Situations : Aircraft  
Primary Problem : Aircraft

## Narrative: 1

[Shortly after] takeoff at about 300 FT AGL the ACM O'HEAT came on followed by the left BLD AIR O'HEAT. There was black acrid smoke in the cockpit and the cabin. Due to the fact we were in a critical phase of flight and at low altitude, we turned the pressure source to OFF and declared an emergency. We entered the downwind and configured for landing. The Captain briefed the passengers over the intercom. When we were abeam the numbers the smoke started to lessen. After landing we cleared at the first available taxi way, performed an emergency shut down. While the Captain performed the shutdown the First Officer evacuated the passengers. We gathered about 100 FT in front of the aircraft and let the Fire Department check the plane. There was no fire detected.

## Narrative: 2

[Narrative 2 had no additional information.]

## Synopsis

CE-560XL flight crew reported shortly after takeoff they had ACM O'HEAT and BLD AIR O'HEAT messages, as well as black smoke in the cockpit and cabin. They declared an emergency, returned to departure airport, and evacuated the aircraft.

## Time / Day

Date : 201207  
Local Time Of Day : 1201-1800

## Place

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

## Environment

Flight Conditions : VMC  
Work Environment Factor : Temperature - Extreme  
Light : Daylight

## Aircraft

Reference : X  
ATC / Advisory.Ground : ZZZ  
Aircraft Operator : Air Carrier  
Make Model Name : MD-82  
Crew Size.Number Of Crew : 2  
Operating Under FAR Part : Part 121  
Flight Plan : IFR  
Mission : Passenger  
Flight Phase : Taxi

## Component

Aircraft Component : Air Conditioning and Pressurization Pack  
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 : 1024371  
Human Factors : Time Pressure  
Human Factors : Physiological - Other  
Analyst Callback : Completed

## Events

Anomaly.Aircraft Equipment Problem : Critical  
Anomaly.Flight Deck / Cabin / Aircraft Event : Illness

Anomaly.Flight Deck / Cabin / Aircraft Event : Smoke / Fire / Fumes / Odor  
Detector.Person : Flight Attendant  
Were Passengers Involved In Event : Y  
When Detected : Taxi  
Result.General : Declared Emergency  
Result.General : Maintenance Action  
Result.General : Physical Injury / Incapacitation  
Result.Flight Crew : Took Evasive Action  
Result.Flight Crew : Returned To Gate

## **Assessments**

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

## **Narrative: 1**

Departed from gate with a completely full aircraft. Taxied south on Taxiway K for Runway 36R departure. As soon as we turned onto B we were chimed from the cabin and received a report of smoke in the cabin. I pulled the aircraft onto the ramp area of the a terminal and stopped. I had the First Officer opened the door to see the situation. He reported significant smoke. I decided the best action was to make an expedited taxi back to a gate to get the people off while requesting the emergency equipment. We did declare an emergency. I wanted to try to get to a gate as it was 100 Deg OAT and an evacuation had it's own hazards. We turned the packs off which did stop the smoke from getting worse. We reached a gate very quickly and deplaned the people without incident.

## **Callback: 1**

The Reporter stated that the packs had been on for about five minutes when suddenly the cabin filled with smoke. Maintenance reported that a pack had overheated and was the source of the smoke. The only known injury was an elderly passenger who reported being light headed. No other passengers or crew members reported ill effects.

## **Synopsis**

An MD-82 pack overheated during taxi-in and filled the cabin with smoke, so the crew declared an emergency and returned to the gate where passengers were removed on the jetway.

## **Time / Day**

Date : 201207  
Local Time Of Day : 1201-1800

## **Place**

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

## **Environment**

Flight Conditions : VMC  
Light : Daylight  
Ceiling : CLR

## **Aircraft**

Reference : X  
ATC / Advisory.Ground : 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 : Passenger  
Flight Phase : Taxi

## **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 : Pilot Not Flying  
Function.Flight Crew : First Officer  
Experience.Flight Crew.Total : 10000  
Experience.Flight Crew.Last 90 Days : 180  
Experience.Flight Crew.Type : 6000  
ASRS Report Number.Accession Number : 1024170  
Human Factors : Physiological - Other  
Human Factors : Troubleshooting  
Analyst Callback : Attempted

## **Person : 2**

Reference : 2  
Location Of Person.Aircraft : X  
Location In Aircraft : Flight Deck  
Reporter Organization : Air Carrier  
ASRS Report Number.Accession Number : 1021931  
Human Factors : Physiological - Other  
Analyst Callback : Completed

### **Person : 3**

Reference : 3  
Location Of Person.Aircraft : X  
Location In Aircraft : Flight Deck  
Reporter Organization : Air Carrier  
ASRS Report Number.Accession Number : 1021932  
Human Factors : Physiological - Other  
Analyst Callback : Attempted

### **Person : 4**

Reference : 4  
Location Of Person.Aircraft : X  
Location In Aircraft : Flight Deck  
Reporter Organization : Air Carrier  
ASRS Report Number.Accession Number : 1021929  
Human Factors : Physiological - Other

### **Person : 5**

Reference : 5  
Location Of Person.Aircraft : X  
Location In Aircraft : Flight Deck  
Reporter Organization : Air Carrier  
ASRS Report Number.Accession Number : 1021930  
Human Factors : Physiological - Other

### **Events**

Anomaly.Aircraft Equipment Problem : Critical  
Anomaly.Flight Deck / Cabin / Aircraft Event : Smoke / Fire / Fumes / Odor  
Detector.Person : Maintenance  
Detector.Person : Flight Crew  
Detector.Person : Flight Attendant  
When Detected : Taxi  
Result.General : Release Refused / Aircraft Not Accepted  
Result.General : Declared Emergency  
Result.General : Physical Injury / Incapacitation  
Result.General : Maintenance Action  
Result.General : Flight Cancelled / Delayed  
Result.Flight Crew : Took Evasive Action  
Result.Flight Crew : Returned To Gate

### **Assessments**

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

## **Narrative: 1**

Returned to gate after noting an intermittent petroleum odor by flight attendants and pilots. Maintenance personnel confirmed oil odor in cabin immediately upon boarding aircraft. Physical response to exposure after blocking in: redness, itchy eyes, sore throat, followed by a headache. Initial treatment: flushed eyes with water, hydration, and aspirin for headache. Filed Occupational Report with Pilot Service Center. Follow on doctor's visit confirmed irritation of eyes, throat. Eye drops prescribed. Work clearance received five days later.

## **Narrative: 2**

I was Flight Attendant #2 on flight and noticed a layer of smoke in the cabin while standing at demo position (in front of Row 1 in First class). The smoke was a filmy gray color that did not seem to move from the business /economy class bulkhead which is row 10-15. I originally thought that the smoke came from condensation from the air condition. Upon the completion of the demo my colleagues and I discussed the visible smoke and realized that this was abnormal. Lead Flight Attendant contacted the cockpit immediately. After speaking with the Captain Lead Flight Attendant communicated that the pilots were going to turn on the packs (that may help the smoke to dissipate) and then come back to do a visual check. I remained in the first class galley protecting the cockpit as the First Officer walked to the rear of the aircraft and back (checking the smoke). After the packs were turned on the smoke appeared to dissipate a little however a smell of fuel began to fill the galley area where I was standing. The cockpit later informed the crew that the smell in the cabin was abnormal and that we were returning to the gate. Once the plane began moving I noticed an odd taste of metal and a feeling of nausea. By the time we reached the gate and all passengers deplaned I was experiencing a headache in addition to the other two symptoms. The crew was met by a Company Supervisor and were later taken to a medical facility for medical evaluation.

## **Callback: 2**

The Reporter stated she is still receiving medical attention because of continuous headaches and chest uneasiness. Several other flight attendants and the pilots on this crew were also off work. She does not know the status of the other crew members at this time. Some passengers also report being dizzy after this event. The Reporter was told later that the suspected cause of smoke and fumes was APU oil in the air conditioning system. She also learned after the fact that her symptoms are most like caused by breathing the TCP contained in the oil.

## **Narrative: 3**

I was the Purser on the flight. While standing in the First Class galley area shortly after pushing from the gate. At the end of the safety demo I noticed a heavy gray layer of smoke/haze in both business and coach sections. I walked over to Business Class and Coach to discuss the situation with my crew. As I walked back to Coach I experience a burning sensation in my eyes and nose. I called the Captain and informed him of the fumes in the Cabin. The Captain informed me that we were going to taxi and park the aircraft so that the First Officer could do a walk to the rear of the Aircraft. In the meantime he was going to run the Air Packs and try to dissipate the cabin fumes. It helped just a little as we taxi to a safe parking spot. After entering the cockpit the Captain informed me that right after my first call to notify them of fumes in the Cabin. They got a very heavy smell of fumes coming out of the air vents in the Cockpit. It was so strong that the Captain said he was feeling nauseous. When the First Officer returned from doing the cabin check, he

immediately put on his oxygen mask as he had become nauseous from the fumes. The Captain was going to ask for an emergency taxi to the gate as traffic was heavy. I then proceeded to check on the passengers and crew. I went back to coach where the smell of fumes was now very heavy. It felt like an oily film was covering everything on the aircraft. I found one Flight Attendant coughing heavily and her eyes were watery. As I walked back to Business class I realized that we were also experiencing pockets of smells throughout the cabin; heavier in some and not as much in others. Also the colors seemed to change from gray to yellow. In Business Class the Flight Attendant was complaining of a metallic taste in her mouth and having hard time breathing. After reaching my jumpseat in First Class to taxi back to the gate. I noticed that the smell had now reached the First Class area and was heavy. It had a strange smell of wet clothes or sewer like. That's the best way I can describe it. The condition inside the cabin was of a heavy irritant as I could tell by my symptoms. We taxied for 42 minutes. When we arrived at the gate we had mechanics already waiting on the Jet Bridge. Once the mechanics entered the Aircraft they immediately recognized the cabin smell. They said it seemed a seal had broken and engine oil had leaked into the oxygen packs, pushing the oil into the air filters and cabin. Mechanics said Aircraft would have to be taken out of service immediately seals and filters replaced and engine burn to clean out oil from engines. Aircraft would be out of service for a few days most likely. As passengers deplaned I started to notice more symptoms myself. I had a weird metallic taste in my mouth and also started to feel a bit nauseous. I checked with my crew and we decided to call crew scheduling and asked to be put on sick list right away. Supervisor from Inflight Services came to the gate to check on us. The whole crew wanted to go for a medical evaluation as we were all not feeling well. We were told that an inflight supervisor would meet us at our domicile the next day to complete our reports. But no one was present at arrival.

#### **Narrative: 4**

Started to experience ache/soreness in throat and irritation in eyes. Went back to gate. Mechanics entered and said it's a leak in the oil valve system. Got passengers off plane. Experienced nausea.

#### **Narrative: 5**

It had the distinct smell of burnt oil/fuel which irritated the eyes and breathing as well as had a nauseating effect.

#### **Synopsis**

Smoke and fumes developed in a B757 cabin during taxi, causing nausea, a metallic taste, and eye irritation. The Captain declared an emergency and returned to the gate where APU oil was found in the air conditioning system.

## Time / Day

Date : 201207  
Local Time Of Day : 0601-1200

## Place

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

## Environment

Flight Conditions : VMC  
Light : Daylight

## Aircraft

Reference : X  
ATC / Advisory.Center : ZZZ  
Aircraft Operator : Fractional  
Make Model Name : Gulfstream G200 (IAI 1126 Galaxy)  
Crew Size.Number Of Crew : 2  
Operating Under FAR Part : Part 91  
Flight Plan : IFR  
Mission : Passenger  
Flight Phase : Climb

## Component

Aircraft Component : Electrical Wiring & Connectors  
Aircraft Reference : X  
Problem : Malfunctioning

## Person

Reference : 1  
Location Of Person.Aircraft : X  
Location In Aircraft : Flight Deck  
Reporter Organization : Fractional  
Function.Flight Crew : Captain  
Function.Flight Crew : Pilot Flying  
Qualification.Flight Crew : Air Transport Pilot (ATP)  
ASRS Report Number.Accession Number : 1024009

## Events

Anomaly.Aircraft Equipment Problem : Critical  
Anomaly.Flight Deck / Cabin / Aircraft Event : Smoke / Fire / Fumes / Odor  
Detector.Person : Flight Crew  
When Detected : In-flight  
Result.General : Declared Emergency  
Result.Flight Crew : Returned To Departure Airport  
Result.Flight Crew : Landed in Emergency Condition

## **Assessments**

Contributing Factors / Situations : Aircraft

Primary Problem : Aircraft

### **Narrative: 1**

About 3-5 minutes after takeoff I noticed an odd smell, something like plastic permeate the cockpit. I looked back and at first I didn't see anything, but a few moments later I looked back and saw what looked like a mist building in the cabin. At this point I decided to return. I asked the First Officer to tell ATC we needed to return. He did this and then he also told them that we had smoke in the cabin. I then turned around and told the passengers that we were returning. They agreed we should, and also said it smelled like plastic. I'm not sure at what point but I asked the First Officer to declare an emergency as well, and he requested the fire trucks with ATC. At this point I had the First Officer look in the back of the QRH at the non-EICAS message producing checklist, which directed him to the smoke/fume removal checklist. We then executed this checklist, which included dumping the cabin which we did. Around this time I called the Duty Manager (after trying to connect to Maintenance), told him of the situation and also told him that we needed to dump fuel since we were over max landing weight. After we hung up I told ATC of our intentions to dump fuel, and they said that was fine. We executed the fuel dump checklist at about 3,000 FT over the water. We ended up landing at about 29,970 LBS. (Max landing is 30,000 LBS). We landed uneventfully, taxied in (followed by the fire trucks) and off loaded the passengers. They seemed fine, were happy with returning.

### **Synopsis**

G200 Captain experiences smoke with a burnt plastic smell shortly after takeoff. After declaring an emergency they return to the departure airport. Fuel is dumped so as to land below maximum landing weight.

## Time / Day

Date : 201207  
Local Time Of Day : 1801-2400

## Place

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

## Environment

Flight Conditions : VMC  
Weather Elements / Visibility.Other  
Light : Night  
Ceiling : CLR

## Aircraft

Reference : X  
ATC / Advisory.Ramp : 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 : Passenger  
Flight Phase : Cruise  
Flight Phase : Parked

## Component

Aircraft Component : APU  
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 Not Flying  
Experience.Flight Crew.Total : 13000  
Experience.Flight Crew.Last 90 Days : 270  
Experience.Flight Crew.Type : 5000  
ASRS Report Number.Accession Number : 1023934  
Human Factors : Physiological - Other  
Human Factors : Training / Qualification

## Person : 2

Reference : 2  
Location Of Person.Aircraft : X  
Location In Aircraft : General Seating Area  
Reporter Organization : Air Carrier  
Function.Flight Attendant : Flight Attendant In Charge  
Qualification.Flight Attendant : Current  
ASRS Report Number.Accession Number : 1022403  
Human Factors : Physiological - Other

### **Person : 3**

Reference : 3  
Location Of Person.Aircraft : X  
Location In Aircraft : General Seating Area  
Reporter Organization : Air Carrier  
Function.Flight Attendant : Flight Attendant (On Duty)  
Qualification.Flight Attendant : Current  
ASRS Report Number.Accession Number : 1022398  
Human Factors : Physiological - Other

### **Events**

Anomaly.Aircraft Equipment Problem : Critical  
Anomaly.Flight Deck / Cabin / Aircraft Event : Smoke / Fire / Fumes / Odor  
Detector.Person : Flight Crew  
Detector.Person : Flight Attendant  
When Detected : Pre-flight  
When Detected : In-flight  
Result.General : Physical Injury / Incapacitation

### **Assessments**

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

### **Narrative: 1**

When I arrived on the aircraft, it smelled as if something had occurred in the air, it was faint smell of oil, nothing really noticeable, but the plane did not smell the same as I am used to. The air felt a bit heavier. I did mention this to the Captain, but he said he did not smell anything. When we he released the brakes, a status message appeared that said, APU OIL QTY LOW. He set the brakes and we called maintenance. When the mechanic arrived, he too said that the air had a faint smell to it, but in the course of everything being checked on the plane, the smell dissipated. The APU was deferred and before we departed again, one of the flight attendants said that she smelled something in the back of the plane by the galley. The Captain sent me back to smell along with the mechanic. We smelt nothing, I even stood under the ceiling eyeball bent in the rear galley and to the side to see if the air had any smell to it, which it did not, at which point I said to her "It's your call, if you smell anything, now or at any time, let us know." She said she didn't smell anything anymore and would let us know if she did. The flight departed uneventfully and I wore my O2 mask a few different times to see if I noticed any change or a smell, which I did not. The flight attendants never reported any more

odd smells or odors to us and all appeared to be normal in smell and function of the aircraft with the exception of no APU.

## **Narrative: 2**

I was the purser on board. Once the crew came onboard we immediately smelled an odor of oil and fuel in the main cabin and I could smell this same odor in the cockpit as I briefed with the Captain and First Officer. I informed the Captain about the smell and he informed me that there might be a problem with the oil line onboard and that it might be an oil bleed. He informed me that the mechanics were working on this situation. At first we were all feeling well. We were delayed on the ground and the more we were on board the more I began to feel light headed and nauseous. I contacted my crew via interphone to check up with them in the main cabin and I learned that my crew members were experiencing the same feeling. The odor gave me a headache and I was not feeling well. I advised the Captain and the First Officer. The First Officer and I walked to the back of the aircraft and the smell of fuel/oil was stronger. We did not feel comfortable at all. When we went back to the cockpit to inform the Captain he wasn't sure if we should take the flight out or not. I then witnessed quite a bit of struggle between the Captain who didn't seem certain about the safety of this flight and the Mechanic that seemed rushed to get the flight out. They decided to run some tests on this aircraft. I was informed that the test would be performed while passengers and crew were onboard. The concern was now ventilation. The Captain wanted to deplane to perform these tests and First Officer was concerned about the possibility of smoke in the cabin. The solution was to crack the doors. It was of no use as it was only a temporary fix to a major problem. Meanwhile, we were all onboard and assisting passengers with their concerns about the nature of this delay. I felt dizzy and nauseous but continued to perform my duties as did the rest of the crew. I informed the crew about the tests being performed and it was very stressful as we were mildly informed about the oil bleed on this aircraft. I felt that there was still a definite struggle between the mechanics and the flight deck about the safety of this plane. I felt that we were not given a choice on whether "we" the crew felt safe nor well onboard. All doors were disarmed and opened and the tests were performed. The decision was made and we would be taking the flight. The Captain and First Officer were still apprehensive about this decision but they were advised that the problem was fixed by the mechanics. I was then informed that we would also be taking this flight out with out a working APU. Why would our company allow this aircraft on such long flight with out an APU to aid us in the event of an emergency? We had no choice. I also want to know why this company made the decision to keep this aircraft going knowing about the oil bleed and its potential hazard on the crew and its passengers. I have been a flight attendant for over 12 years and I have never witnessed such a dilemma between the mechanics and the flight deck. Nevertheless, I continued to check with my flying partners and I was soon informed that they were both (in the main cabin) feeling nauseous and one of my crew members had to go into the lavatory because her headache was escalating. I felt the same feeling in first class. When I went into the cockpit to give the flight deck their break in-flight I noticed that both the Captain and First Officer had donned their oxygen masks because of the fumes in the cockpit. I however was not given that option as I stood in the cockpit breathing the smell of oil. I want to make clear that it was not the fault of the flight deck. I feel they were over powered by the mechanics. We all performed our duties on board professionally and the flight went well. The smell persisted throughout the flight although we were informed that it was safe. I am now experiencing headaches that won't go away, nausea, dizziness, trouble sleeping, stomach cramps and pressure in my ears and head. I have also

been experiencing heart palpitations and muscle aches. In addition, the anxiety of not knowing what the root cause of this mechanical was and the hazard to me and my co-workers were told to endure has been horrific. We later learned that this aircraft had been rejected by a previous flight crew and this information was nowhere on my paperwork and none informed us of that situation concerning that flight and crew. We the crew members did not feel that our company was looking out for our safety at all in this situation. They were so pre-occupied with getting the flight out and there was more risk involved than we were led to believe. I will see my doctor as to the conditions I have been experiencing and keep you informed regarding this matter.

### **Narrative: 3**

We received a phone call before sunrise stating that our trip had been changed and we were now working a trip that departed mid afternoon. We got to the plane and sat for awhile before a Customer Service arrived because the jet bridge was not even connected to the plane. It looked as if it has been sitting for awhile. After boarding the aircraft, the pilots stated that there was an issue with an abnormal oil smell coming from the cockpit. We smelled an enormous smell from the back as well. Maintenance had come on board and even the First Officer came to the back of the plane to check out the smell that I and another Flight Attendant had smelled as well. Maintenance was pushing us to take the plane stating that there didn't seem to be anything wrong because he noticed it the day before and he knew what it smelled like. The First Officer looked at me and the Flight Attendant stating "it was up to us" if we took the plane or not. The First Officer also looked at the Captain and stated it was up to him but the pilots kept being reassured that it was OK by maintenance to take the plane. One of the other Flight Attendants started having a major headache in the middle of the flight and had to go to the front of the plane because of the smell. The other Flight Attendant working #5 came back to check the smell out and he even said it was strong. I woke up the next morning with a headache and was a bit dizzy the next day. I decided to file an occupational report through a supervisor in my domicile. We found out that the crew scheduled to work the plane before us was the flight canceled and they all went on occupational for same symptoms.

### **Synopsis**

B757 Flight Attendants reported nausea, head aches, and other physical ills after a flight on which oil fumes and odors were reported. The previous crew rejected that aircraft after reporting ill effects from the odor.

## Time / Day

Date : 201207

## Place

Altitude.AGL.Single Value : 0

## Aircraft

Reference : X  
Aircraft Operator : Air Carrier  
Make Model Name : B737-300  
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  
Cabin Activity : Boarding  
Reporter Organization : Air Carrier  
Function.Flight Attendant : Flight Attendant (On Duty)  
Qualification.Flight Attendant : Current  
Experience.Flight Attendant.Total : 25  
ASRS Report Number.Accession Number : 1023782  
Human Factors : Physiological - Other  
Analyst Callback : Completed

## Events

Anomaly.Flight Deck / Cabin / Aircraft Event : Smoke / Fire / Fumes / Odor  
Anomaly.Flight Deck / Cabin / Aircraft Event : Illness  
Detector.Person : Flight Attendant  
When Detected : Pre-flight  
Result.General : Physical Injury / Incapacitation

## Assessments

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

## Narrative: 1

We took this aircraft on a turnover. I went to the back galley to perform security check. I opened the aft lavatory door and smelled this horrible odor that burned my nose, eyes and throat. It was a very strong, acrid odor. It smelled like a combination of ammonia and mentholatum. I have never smelled this odor before

on an airplane in my 25 years of flying. The smell gave me a headache and made me nauseous to the point that I vomited in the galley trash can. I also noticed on the lavatory floor a yellowish, jelled substance that I assumed was urine, but in hindsight am wondering what it actually was. I notified my "C" Flight Attendant who came back and experienced the same burning of the eyes, nose, and throat. I called the Captain; he came back and smelled the same smell. He called the ramp back up to clean the lavatory for us. Ramp agent came back and smelled the same odor as he was opening the aft galley door. He asked what that smell was. I asked if he had cleaned the lavatory earlier when he brought the ice and changed the trash. He said he did not go in the lavatory nor did the inbound Flight Attendant. Neither one of them noticed this odor either. Two ramp supervisors came up and noticed the odor and had no idea what it could be. We asked if there was a new blue water they were using or if they had some kind of new cleaner, they all said no and also said they had no idea what the odor was. Since both doors were open, the smell dissipated a little bit, and the Captain made the decision to go. The "A" Flight Attendant came back and told me to do the demo from the front galley to give me a break from the smell so that's what we did. I returned to back galley for takeoff. I checked the lavatory again and the smell was back just as strong as when I first boarded the aircraft. I strapped myself in the aft jumpseat and we were cleared for departure. I don't have a clear recollection of what happened after takeoff only that I passed out on the jumpseat from the strong odor in the aft lavatory. My crew administered O2, called for a doctor, and I landed in the front row of seats with portable oxygen. I was attended to by paramedics and transported to a hospital. I remember 3 or 4 other passengers complaining about the odor on boarding, and I believe 4 passengers were treated for complications. I have never smelled any cleaning products on an airplane that came close to smelling like this. No one poured any cleaning agents on the floor of the lavatory in my presence. I did not pour any cleaning agent on the lavatory floor. This substance and odor was present when I boarded the aircraft. I was unable to get any witness information or the doctor information since I was basically incoherent. I was met at the hospital by a HAZMAT team in full hazmat gear. I was required to take a decontamination shower in the presence of a nurse. My clothes, luggage, phone, and all personal items were bagged and checked for contamination. Several tests and procedures were performed on me. I was released about 7 or 8 hours later. This was not lav spray or cleaning solvent as reported by my company. This was a definite chemical odor that burned my nose, throat, eyes, and made me vomit! I have been around lavatory spray for 25 years, I know the difference. I did not spray any lavatory cleaner or freshener in the aft lavatory nor did the Ramp Agent or supervisors who came up to inspect. This chemical/odor was present when I boarded the aircraft!

### **Callback: 1**

The Reporter stated the odor was similar to a combination of ammonia and mentholatum. She experienced burning eyes, nose and throat. There is a complex set of circumstances which do not allow pin pointing any single cause for her physical response. The flight attendant she relieved during the crew change had not detected any foreign odor or substance prior to deplaning, and she inspected the lavatory ensuring all passengers had deplaned. The substance which she believes was the source of the odor was a thick yellow liquid, similar to dried urine, which is not unusual on aircraft floors. An Emergency Room blood test did reveal exposure to some foreign substance but she is not certain what chemicals were detected. She is aware of TCP but did not know if it had been detected in the aircraft's air conditioning systems. She found it interesting that while at the hospital ER her

Company called to say that cleaning fluid was discovered to be the odor's source and subsequently a Company representative collected her clothing and luggage before the HAZMAT crew could examine them for contaminants. The cleaning crew had not been into that lavatory during the turn around. On the day of this call back, she continued have a constant low grade headache. When asked if she was aware of the effects of TCP she responded that she had heard about TCP but did not know the consequences of exposure to it.

## **Synopsis**

A B737 Flight Attendant became unconscious in flight after experiencing a strong odor in an aft lavatory during preflight and again after takeoff.

## Time / Day

Date : 201207  
Local Time Of Day : 1201-1800

## Place

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

## Environment

Light : Daylight

## Aircraft

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

## Component

Aircraft Component : 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 : First Officer  
Qualification.Flight Crew : Air Transport Pilot (ATP)  
ASRS Report Number.Accession Number : 1023442  
Human Factors : Physiological - Other  
Human Factors : Troubleshooting

## Events

Anomaly.Aircraft Equipment Problem : Less Severe  
Anomaly.Flight Deck / Cabin / Aircraft Event : Smoke / Fire / Fumes / Odor  
Detector.Person : Flight Crew  
When Detected : Taxi

When Detected : In-flight  
Result.General : Physical Injury / Incapacitation

## **Assessments**

Contributing Factors / Situations : Aircraft  
Primary Problem : Aircraft

## **Narrative: 1**

On the descent, the Captain and I both noticed a smell similar to formaldehyde. We began to notice it at approximately 15,000 FT and continued to smell it through the descent, landing, and taxiing in. We had noticed the same smell on the descent on the previous leg. The cabin crew did not notice any smell. The Captain did not think we needed to write this up since neither of us was experiencing respiratory stress or watery eyes. I am submitting this report because I have had a headache since this flight and it is now almost 48 hours later. I rarely get headaches and this one has not gone away after using Excedrin. I am concerned that the smell we experienced may be the same as the "sweaty gym sock" smell caused by TCP in the synthetic oil. I suspect the cause of the smell may be from the bleed air from the engine. The APU was off at the time. Since the cabin crew did not notice the smell that leads me to believe the problem may be coming from the left pack. We tried turning the left pack off when below 10,000 FT and the smell decreased somewhat. This plane needs to be monitored to see if there is a problem.

## **Synopsis**

A B757 First Officer had a headache two days after a flight on which a formaldehyde odor was detected during descent on two consecutive flights. The smell may be the gym socks TCP odor.

## Time / Day

Date : 201207  
Local Time Of Day : 1801-2400

## Place

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

## Environment

Light : Night

## Aircraft

Reference : X  
ATC / Advisory.Ground : 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  
Mission : Passenger  
Flight Phase : Taxi  
Maintenance Status.Maintenance Deferred : N  
Maintenance Status.Records Complete : N  
Maintenance Status.Released For Service : Y  
Maintenance Status.Maintenance Type : Unscheduled Maintenance  
Maintenance Status.Maintenance Items Involved : Work Cards  
Maintenance Status.Maintenance Items Involved : Installation

## Component : 1

Aircraft Component : DC Battery  
Aircraft Reference : X

## Component : 2

Aircraft Component : Circuit Breaker / Fuse / Thermocouple  
Manufacturer : McDonnell Douglas/Boeing  
Aircraft Reference : X  
Problem : Malfunctioning

## Person

Reference : 1  
Location Of Person : Company  
Reporter Organization : Air Carrier  
Function.Maintenance : Other / Unknown  
Qualification.Maintenance : Powerplant  
Qualification.Maintenance : Airframe  
Qualification.Maintenance : Avionics

Experience.Maintenance.Technician : 15  
ASRS Report Number.Accession Number : 1023357  
Human Factors : Situational Awareness  
Human Factors : Training / Qualification  
Human Factors : Communication Breakdown  
Human Factors : Confusion  
Communication Breakdown.Party1 : Maintenance  
Communication Breakdown.Party2 : Maintenance

## Events

Anomaly.Aircraft Equipment Problem : Critical  
Anomaly.Flight Deck / Cabin / Aircraft Event : Smoke / Fire / Fumes / Odor  
Anomaly.Deviation - Procedural : Published Material / Policy  
Detector.Person : Flight Crew  
Were Passengers Involved In Event : Y  
When Detected : Taxi  
Result.General : Flight Cancelled / Delayed  
Result.General : Maintenance Action  
Result.Flight Crew : Returned To Gate

## Assessments

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

## Narrative: 1

Aircraft [was] in ZZZ1 and the Captain called me stating that his Battery Charger Circuit Breaker popped and would not reset. I contacted Contract Maintenance and had them remove external power from the aircraft. Without power on the aircraft the circuit breaker would stay in, but with power on, it remained out and would not reset. Knowing that the aircraft has two types of battery chargers and two types of batteries (ACME or Marathon) and it is required to have a matching set, I gave [Stores-Parts shipping] for Aircraft on Ground (AOG), both types of batteries and chargers part numbers. They informed me that we only had the Marathon charger in stock and they shipped a matching set of Marathon batteries and battery charger. I also had them send the R2-56 Charger Transfer Relay.

When the parts arrived, I had the Contract Mechanic replace the charger and the circuit breaker then remained in [closed]. I had the Contract Mechanic perform the Emergency Power Check and the amp meter showed a deflection to the left indicating the charger was charging the batteries. Being that the batteries were showing 25-Volts at the time of the battery charger replacement, I told the Contract Mechanic not to replace the batteries because they should be good. The aircraft logbook was signed-off and the aircraft was pushed out.

I was then informed that the aircraft was taxiing back to the gate because of smoke in the cabin. The Captain pulled the Battery Charger Circuit Breaker and the smoke dissipated. There was a company Mechanic flying on the aircraft and I had him go down to the Electronic Equipment Compartment and verify that the [aircraft] batteries were very hot. I had him verify that the batteries onboard the aircraft were actually ACME batteries and the charger that was installed was a

Marathon (mismatched). Effectivity for the Marathon battery and battery charger per Illustrated Parts Catalog (IPC) 24-34-00 shows Marathon battery and battery chargers were effective for different aircraft numbers. A matched set of ACME batteries and battery charger were sent out on the first flight to ZZZ1 for replacement. I spoke with everyone involved and we stressed the importance of verifying part Effectivity in the IPC prior to installing on the aircraft.

## **Synopsis**

A Maintenance Controller reports a McDonald Douglas aircraft taxied back to the gate due to smoke in the cabin. An incorrect battery charger had been installed by Contract Maintenance that was not 'Effective' (not matched) to the aircraft's D.C. batteries.

## Time / Day

Date : 201207  
Local Time Of Day : 0601-1200

## Place

Locale Reference.ATC Facility : ZZZ.ARTCC  
State Reference : US  
Altitude.MSL.Single Value : 38700

## Environment

Flight Conditions : VMC  
Light : Daylight

## Aircraft

Reference : X  
ATC / Advisory.Center : ZZZ  
Aircraft Operator : Air Taxi  
Make Model Name : Beechjet 400  
Crew Size.Number Of Crew : 2  
Operating Under FAR Part : Part 135  
Flight Plan : IFR  
Mission : Passenger  
Flight Phase : Climb  
Airspace.Class A : ZZZ

## Component

Aircraft Component : Electrical Power  
Aircraft Reference : X  
Problem : Malfunctioning

## Person

Reference : 1  
Location Of Person.Aircraft : X  
Location In Aircraft : Flight Deck  
Reporter Organization : Air Taxi  
Function.Flight Crew : Captain  
Function.Flight Crew : Pilot Flying  
Qualification.Flight Crew : Air Transport Pilot (ATP)  
ASRS Report Number.Accession Number : 1023251  
Human Factors : Time Pressure  
Human Factors : Training / Qualification  
Human Factors : Workload  
Analyst Callback : Attempted

## Events

Anomaly.Aircraft Equipment Problem : Critical  
Anomaly.Flight Deck / Cabin / Aircraft Event : Smoke / Fire / Fumes / Odor  
Detector.Person : Flight Crew  
When Detected : In-flight  
Result.Flight Crew : Diverted  
Result.Flight Crew : FLC complied w / Automation / Advisory  
Result.Flight Crew : Took Evasive Action  
Result.Flight Crew : Landed As Precaution  
Result.Aircraft : Equipment Problem Dissipated

## **Assessments**

Contributing Factors / Situations : Aircraft  
Primary Problem : Aircraft

## **Narrative: 1**

While climbing out of FL387 after departure a very loud POP was heard and soon shortly after smoke was visible coming up from under the co-pilots seat on the bulk head side of the aircraft. An acrid smell was observed, climb of the aircraft was stopped and transmission to ATC was made in regards of getting lower and deviating to a nearby airport. Smoke was only visible for a few seconds and dissipated very quickly. An emergency descent was performed; fire extinguisher was removed from the holder in case it was needed. No adverse electrical conditions were observed and no circuit breakers were open. Normal approach and landing were made. Emergency was not declared.

## **Synopsis**

A BE-400XP developed cockpit smoke originating from the First Officer's side wall so the climb was stopped and a descent to landing at a nearby airport completed. The smoke dissipated and no popped circuit breakers were found.

## Time / Day

Date : 201207  
Local Time Of Day : 0601-1200

## Place

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

## Environment

Flight Conditions : VMC  
Weather Elements / Visibility.Visibility : 6  
Light : Daylight

## Aircraft

Reference : X  
ATC / Advisory.TRACON : ZZZ  
Aircraft Operator : Fractional  
Make Model Name : Cessna Citation Sovereign (C680)  
Crew Size.Number Of Crew : 2  
Operating Under FAR Part : Part 91  
Flight Plan : IFR  
Flight Phase : Climb

## Component

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

## Person

Reference : 1  
Location Of Person.Aircraft : X  
Location In Aircraft : Flight Deck  
Reporter Organization : Fractional  
Function.Flight Crew : Captain  
Function.Flight Crew : Pilot Flying  
Qualification.Flight Crew : Air Transport Pilot (ATP)  
ASRS Report Number.Accession Number : 1022750

## Events

Anomaly.Flight Deck / Cabin / Aircraft Event : Smoke / Fire / Fumes / Odor  
Detector.Person : Flight Crew  
Were Passengers Involved In Event : N  
When Detected : In-flight  
Result.General : Maintenance Action  
Result.Flight Crew : Returned To Departure Airport  
Result.Aircraft : Equipment Problem Dissipated

## **Assessments**

Contributing Factors / Situations : Aircraft

Primary Problem : Aircraft

## **Narrative: 1**

Shortly after takeoff, unusual smoke and odor came through WEMAC vents with the APU off. Notified ATC of problem and elected to return to our departure airport. Leveled off aircraft and smoke seemed to stop. Pilot not flying had time to run part of checklist, shut off left bleed source which seemed to stop odor. [We] landed without further event.

## **Synopsis**

A Citation flight crew returned to their departure airport after unusual smoke and odors were detected emanating from the air conditioning vents.

## Time / Day

Date : 201207  
Local Time Of Day : 1201-1800

## Place

Locale Reference.ATC Facility : LPPO.ARTCC  
State Reference : FO  
Altitude.MSL.Single Value : 39000

## Environment

Flight Conditions : VMC  
Light : Daylight

## Aircraft

Reference : X  
ATC / Advisory.Center : LPPO  
Aircraft Operator : Air Carrier  
Make Model Name : A330  
Crew Size.Number Of Crew : 2  
Operating Under FAR Part : Part 121  
Flight Phase : Cruise

## Person

Reference : 1  
Location Of Person.Aircraft : X  
Location In Aircraft : Flight Deck  
Reporter Organization : Air Carrier  
Function.Flight Crew : Captain  
Function.Flight Crew : Check Pilot  
Qualification.Flight Crew : Air Transport Pilot (ATP)  
ASRS Report Number.Accession Number : 1021845  
Human Factors : Troubleshooting

## Events

Anomaly.Flight Deck / Cabin / Aircraft Event : Smoke / Fire / Fumes / Odor  
Anomaly.Flight Deck / Cabin / Aircraft Event : Illness  
Detector.Person : Flight Attendant  
Detector.Person : Passenger  
Were Passengers Involved In Event : Y  
When Detected : In-flight  
Result.General : Physical Injury / Incapacitation

## Assessments

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

## **Narrative: 1**

At approximately the 5+00 hour point in cruise at FL390, a Flight Attendant advised several passengers and a Flight Attendant could smell an odor near row 14 left. They said it smelled "electrical". We sent an "on break" First Officer to that location who reported he could not smell or detect any odor. To our knowledge no one else could now smell the odor. No abnormality was witnessed or detected in the cabin. Passenger in that area had been noticed using lap tops and Bose headset equipment. No further odor was reported for the remainder of the flight.

About 6+30 hours into the flight I went to the cabin myself during a break. I walked past row 14 twice plus saw and talked to numerous flight attendants. No odors were present and everyone seemed very content. Approximately 30 minutes later, while well into our descent, we were contacted again and told flight attendants were experiencing headaches and nausea but no odors were present in the cabin. I believe we were told they had been working the left side of the aisle in coach. We selected high flow for better ventilation.

Shortly after that, one of the three flight attendants was feeling worse and felt the need to sit down and asked for oxygen. We again asked about odors but none were reported from any location in the cabin. We asked if the distressed flight attendant wanted to be met by paramedics. We were told she said yes and we made the request. We were told she was sitting up, conversing, and appeared normal but perhaps a little pale. Remote medical assistance was not contacted directly as only 30-45 minutes of flight remained.

An emergency was not declared. We were allowed to keep speed up and ATC got us right in and paramedics were in position awaiting us. After gate arrival I got no updates regarding the three distressed flight attendants. Thinking someone would come up front or call; I became involved with maintenance, paper work and completed the cabin fume, odor, and smoke form for Maintenance. By the time my IOE Captain and I were able to move aft everyone had already left the aircraft.

## **Synopsis**

Faint odors detected by passengers and flight attendants aboard an A330 may have caused nausea and headaches for three flight attendants as the flight approached its destination.

## Time / Day

Date : 201207  
Local Time Of Day : 1201-1800

## Place

Locale Reference.Airport : ZZZ.Airport  
State Reference : US  
Relative Position.Distance.Nautical Miles : 7  
Altitude.MSL.Single Value : 2500

## Environment

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

## Aircraft

Reference : X  
ATC / Advisory.Tower : ZZZ  
Aircraft Operator : Personal  
Make Model Name : M-20 J (201) / Allegro  
Crew Size.Number Of Crew : 1  
Operating Under FAR Part : Part 91  
Flight Plan : None  
Mission : Personal  
Flight Phase : Climb  
Route In Use : Direct  
Airspace.Class E : ZZZ

## Component

Aircraft Component : Electrical Power  
Aircraft Reference : X  
Problem : Malfunctioning

## 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 : Air Transport Pilot (ATP)  
Experience.Flight Crew.Total : 10000  
Experience.Flight Crew.Last 90 Days : 50  
Experience.Flight Crew.Type : 300  
ASRS Report Number.Accession Number : 1021482

Human Factors : Communication Breakdown  
Human Factors : Distraction  
Human Factors : Workload  
Human Factors : Situational Awareness  
Human Factors : Training / Qualification  
Human Factors : Troubleshooting  
Communication Breakdown.Party1 : Flight Crew  
Communication Breakdown.Party2 : ATC

## Events

Anomaly.Aircraft Equipment Problem : Critical  
Anomaly.Flight Deck / Cabin / Aircraft Event : Smoke / Fire / Fumes / Odor  
Anomaly.Inflight Event / Encounter : Other / Unknown  
Detector.Person : Flight Crew  
When Detected : In-flight  
Result.Flight Crew : Became Reoriented  
Result.Flight Crew : Took Evasive Action

## Assessments

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

## Narrative: 1

After dropping my son off, within 5 minutes after takeoff, and climbing through about 2,500 FT and a heading of about 280 degrees, I smelled smoke in the cockpit. I immediately started a left turn back and turned off my Avionics master and Master switch. I knew there was traffic to my left so I stopped the turn until I acquired the slower traffic. During that time the smoke and smell left the cockpit. At that time I had a decision to make, it's a clear day and the aircraft is running and flying fine, should I continue to head away from a busy airspace to my home airport, or should I possibly make a no radio landing at a busy towered airport. I decided to continue my flight. I then used my compass to head generally west toward my destination. I thought I should let the Tower know what was going on since my transponder was off below the Class B Airspace, and I had started the turn to the south somewhat abruptly. I turned electrical components on one at a time to isolate the problem and report to the Tower why I turned and the transponder went off but within 5 minutes I smelled something again so I shut all electrical off. By this time I was outside of the Mode C veil and headed back generally west and had more time to navigate back using my iPad and GPS. About this time I noticed several parachutes at about my altitude and about one half mile north of my position and abeam or slightly behind me. I continued the rest of the flight without avionics uneventfully. Did I make the right decision? I'm not sure, the smoke did very much get my attention but that was solved quickly. What bothered me more was that I inadvertently flew into an area where there was parachute activity while trying to solve the electrical problems and did so because of lack of communications.

## Synopsis

A M20 developed smoke and fumes after takeoff so the pilot secured all Master Electrical Switches and continued flying spending a short while under Class B Airspace with the transponder OFF.

## Time / Day

Date : 201207  
Local Time Of Day : 1201-1800

## Place

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

## Aircraft

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

## Component : 1

Aircraft Component : APU Fire/Overheat Warning  
Aircraft Reference : X  
Problem : Malfunctioning

## Component : 2

Aircraft Component : APU  
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  
Qualification.Flight Crew : Air Transport Pilot (ATP)  
ASRS Report Number.Accession Number : 1021202

## Events

Anomaly.Aircraft Equipment Problem : Critical  
Anomaly.Flight Deck / Cabin / Aircraft Event : Smoke / Fire / Fumes / Odor  
Detector.Person : Flight Crew  
When Detected : Taxi  
Result.General : Declared Emergency

## Assessments

Contributing Factors / Situations : Aircraft  
Primary Problem : Aircraft

### **Narrative: 1**

[We had an] acrid smell from APU after landing [during] taxi. APU bleed open caution message. Crew followed QRH. At gate, momentary APU fire warning followed by APU self shut down. Crew followed QRH. APU fire indication ceased with no APU fire present. CFR called. CFR could find no evidence of a fire. Passengers were already deplaning when incident took place. Dispatch and Maintenance Control were notified.

### **Synopsis**

CRJ-700 Captain reported acrid smell from APU after landing. At gate a momentary APU fire warning resulted in APU shutdown, but no fire found by CFR.

## Time / Day

Date : 201206  
Local Time Of Day : 1201-1800

## Place

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

## Environment

Weather Elements / Visibility : Thunderstorm  
Light : Daylight

## Aircraft

Reference : X  
Aircraft Operator : Air Carrier  
Make Model Name : Bombardier/Canadair Undifferentiated or Other Model  
Operating Under FAR Part : Part 121  
Mission : Passenger  
Flight Phase : Parked  
Maintenance Status.Maintenance Deferred : Y  
Maintenance Status.Records Complete : N  
Maintenance Status.Released For Service : Y  
Maintenance Status.Maintenance Type : Unscheduled Maintenance  
Maintenance Status.Maintenance Items Involved : Work Cards  
Maintenance Status.Maintenance Items Involved : Inspection

## Component : 1

Aircraft Component : Cabin Lighting  
Aircraft Reference : X  
Problem : Malfunctioning

## Component : 2

Aircraft Component : Electrical Wiring & Connectors  
Manufacturer : Embraer  
Aircraft Reference : X  
Problem : Malfunctioning

## Person

Reference : 1  
Location Of Person : Gate / Ramp / Line  
Reporter Organization : Air Carrier  
Function.Maintenance : Technician  
Qualification.Maintenance : Airframe  
Qualification.Maintenance : Powerplant  
ASRS Report Number.Accession Number : 1020098

Human Factors : Situational Awareness  
Human Factors : Troubleshooting  
Human Factors : Communication Breakdown  
Communication Breakdown.Party1 : Maintenance  
Communication Breakdown.Party2 : Maintenance

## Events

Anomaly.Aircraft Equipment Problem : Less Severe  
Anomaly.Flight Deck / Cabin / Aircraft Event : Smoke / Fire / Fumes / Odor  
Anomaly.Deviation - Procedural : Published Material / Policy  
Anomaly.Deviation - Procedural : MEL  
Detector.Person : Flight Crew  
Were Passengers Involved In Event : Y  
When Detected : In-flight  
Result.General : Maintenance Action

## Assessments

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

## Narrative: 1

I was dispatched from my home base of ZZZ to report to ZZZ1 for an aircraft which had smoke in the cabin and flight deck during final approach. I connected through ZZZ3 and did not arrive at the aircraft in question until late that evening. The Flight crew had been put on rest and I was unable to question them about the events that occurred. I met with the on-demand Maintenance Mechanic who was able to talk to the [flight] crew and reviewed what inspection he had completed and what information he had gathered prior to my arrival.

He [had] worked the issue while I was en route and was unable to duplicate any such event as was written-up by the flight crew. Due to the serious nature of smoke in an aircraft he and I continued to investigate every source of possible ignition or failure that may cause smoke. I was informed via Maintenance Control that Bombardier requested each pack be run isolated, using APU [bleed] and each engine bleed for a period of 30-minutes on both full 'Hot' and full 'Cold' settings. This lengthy procedure proved to show no hint of smoke developing. Both engines showed no signs of ingestion or leaking of fluid that would cause a poor air quality in the aircraft.

I inspected every area of aircraft where electrical connections could possibly create a hazardous situation and found only one suspect area. Upon inspection of the left-hand ceiling lights at Rows One and Two, I discovered lighting fixture had evidence of overheating at the ends of the fixtures. Per MEL 33-21-01A, Category 'C', I placed the lights on deferral. Per the MEL there is no Maintenance Action required. Due to the manner in which the connecting ends, not the bulb, showed evidence of overheating and the fact that a fire in an aircraft could result in the loss of all souls onboard, I disconnected the [electrical] connectors from either end of the fixture and bagged them to eliminate potential contamination or ignition of the light fixture

and connectors. The Lighting Ballast is usually the culprit for these kinds of discrepancies and although I could not detect signs of failure, upon request of Maintenance Control, I also disconnected the ballast on either end and bagged the connectors as well.

As a Mechanic, I strive to act in a manner that protects all aircraft I work on and most importantly all those who travel on them. My experience and skill-sets should involve more than just proper workmanship; they should be exemplary, and include all documentation of work performed to protect myself and those who rely on me. I felt I was acting in accordance with the MEL by eliminating the entire system out of an equation where variables could be life threatening. No Maintenance Action was required per the [MEL] book, but per common sense no Maintenance Action was unacceptable.

For all future maintenance I shall document any, over and above procedures completed, that are not explicitly called out by the MEL. Log can write-up read backs, and faxed proof reads can go only so far as to getting documentation correct. The responsibility lies in the hands of I, the Mechanic, and I will always remember so. As a Contracted Aircraft Maintainer for Air Carrier X, I am expected to placate all requests made by Air Carrier X's Maintenance Control, but as a Mechanic, it is my duty to question my actions and adhere to procedures set out by the FAA, the Aircraft Manufacturer, and my creed taken as an Aircraft Maintenance Technician (AMT).

## **Synopsis**

A Contract Line Mechanic reports that a Regional Jet aircraft had reported smoke in the cabin and flight deck on approach. During troubleshooting of the smoke, he noticed evidence of overheating at the left-hand ceiling ballast fixture and disconnected the electrical connectors at both ends of the fixture, but had failed to include the information when deferring the light assembly.

## Time / Day

Date : 201206

## Environment

Light : Daylight

Ceiling : CLR

## Aircraft

Reference : X

Make Model Name : Any Unknown or Unlisted Aircraft Manufacturer

Mission : Ambulance

Flight Phase : Cruise

## Component

Aircraft Component : Air Conditioning and Pressurization Pack

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

ASRS Report Number.Accession Number : 1019896

## Events

Anomaly.Aircraft Equipment Problem : Less Severe

Anomaly.Flight Deck / Cabin / Aircraft Event : Smoke / Fire / Fumes / Odor

Detector.Person : Flight Crew

Were Passengers Involved In Event : Y

When Detected : In-flight

Result.Flight Crew : Landed As Precaution

Result.Flight Crew : Diverted

## Assessments

Contributing Factors / Situations : Aircraft

Primary Problem : Aircraft

## Narrative: 1

On flight to hospital with patient on board, crew and I noticed that the air conditioning stopped operating and then there was a strong smell of something burning. After turning off the air conditioning unit, I performed an "S" turn to check for a visible smoke trail. With no visible smoke showing, [I] performed a precautionary landing in a safe and accessible location so that the responding EMS service could access the patient and crew to continue to the hospital. After landing,

we checked the aircraft to make sure it was safe for the crew and patient to remain in the area and then contacted Maintenance Dispatch to update the events as they were progressing. Assisted crew and patient loading into EMS unit on scene and waited for Maintenance.

### **Synopsis**

Pilot on a patient transport flight noted a loss of the air conditioning system followed by a burning smell, so performed a precautionary landing and transfer of the patient to another EMS unit.

## Time / Day

Date : 201206  
Local Time Of Day : 1201-1800

## Place

Locale Reference.ATC Facility : ZZZ.ARTCC  
State Reference : US  
Altitude.MSL.Single Value : 36000

## Environment

Flight Conditions : VMC  
Light : Daylight

## Aircraft

Reference : X  
ATC / Advisory.Center : ZZZ  
Aircraft Operator : Air Carrier  
Make Model Name : A319  
Crew Size.Number Of Crew : 2  
Operating Under FAR Part : Part 121  
Flight Plan : IFR  
Mission : Passenger  
Flight Phase : Cruise  
Airspace.Class A : 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 Not Flying  
Qualification.Flight Crew : Air Transport Pilot (ATP)  
ASRS Report Number.Accession Number : 1018181  
Human Factors : Training / Qualification  
Human Factors : Confusion  
Human Factors : Situational Awareness  
Human Factors : Time Pressure  
Human Factors : Troubleshooting  
Analyst Callback : Completed

## Events

Anomaly.Flight Deck / Cabin / Aircraft Event : Smoke / Fire / Fumes / Odor  
Detector.Person : Flight Attendant  
When Detected : Pre-flight  
When Detected : In-flight

Result.General : Maintenance Action  
Result.Flight Crew : Landed As Precaution  
Result.Flight Crew : Diverted

## **Assessments**

Contributing Factors / Situations : Aircraft  
Primary Problem : Aircraft

## **Narrative: 1**

On ground the flight attendants reported egg/sulfur smell around Row 18 was burning their eyes. Maintenance performed test on APU bleed which showed normal. Maintenance decided to MEL rear chillers as a possible source of the smell. [We] departed approximately one hour late. Approximately one hour fifteen minutes into the flight the flight attendants reported the smell had returned around Row 18, and a "leather" smell. Ten minutes later, the flight attendants reported an acrid smell of "electrical". Decision was made to divert to an airport 100 mile to our right. En route had flight attendants turn off reading lights around Row 18 and overhead lights. Odor seemed to start to dissipate. [After a] normal approach and landing aircraft left awaiting Company Maintenance. The crew deadheaded. Maintenance was not able to locate proper source of odor before departure.

## **Callback: 1**

The Reporter stated that he contacted his Chief Pilot for the cause of this event and was told that the odor was the result of an overheated electrical light ballast in the cabin sidewall overheating. In retrospect he felt his decision to turn cabin lights off was a worthwhile action.

## **Synopsis**

An A319 flight attendant crew reported an egg/sulfur smell near Row 18 prior to flight but Maintenance found no cause. During flight, the odor returned so the Captain diverted to an enroute airport and was later told the cause was an overheated cabin sidewall electrical light ballast.

## Time / Day

Date : 201206  
Local Time Of Day : 1801-2400

## Place

Locale Reference.Airport : ZZZ.Airport  
State Reference : US  
Altitude.MSL.Single Value : 37000

## Environment

Flight Conditions : VMC

## Aircraft

Reference : X  
ATC / Advisory.Center : ZZZ  
Aircraft Operator : Air Carrier  
Make Model Name : B737-300  
Crew Size.Number Of Crew : 2  
Operating Under FAR Part : Part 121  
Flight Plan : IFR  
Mission : Passenger  
Flight Phase : Cruise  
Airspace.Class A : ZZZ

## 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 : Captain  
Qualification.Flight Crew : Air Transport Pilot (ATP)  
Experience.Flight Crew.Last 90 Days : 217  
ASRS Report Number.Accession Number : 1017408

## Person : 2

Reference : 2  
Location Of Person.Aircraft : X  
Location In Aircraft : Flight Deck  
Reporter Organization : Air Carrier  
Function.Flight Crew : First Officer  
Function.Flight Crew : Pilot Flying  
ASRS Report Number.Accession Number : 1017127

## Events

Anomaly.Aircraft Equipment Problem : Critical  
Anomaly.Flight Deck / Cabin / Aircraft Event : Smoke / Fire / Fumes / Odor  
Anomaly.Inflight Event / Encounter : Weather / Turbulence  
Detector.Person : Flight Crew  
When Detected : In-flight  
Result.General : Declared Emergency  
Result.Flight Crew : Diverted  
Result.Flight Crew : Landed in Emergency Condition  
Result.Flight Crew : Landed As Precaution

## Assessments

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

## Narrative: 1

Night cruise at FL370 with TRW avoidance en route to [destination]. Master Caution with "IRS" on annunciator. There were no supporting indications of failure mode on aft overhead panel. No indications of platform failure/attitude failure when control instruments were compared. IRS annunciator went out with MC press. After comparing control instruments, I looked up at the overhead panel and discovered most Caution/Warning lights illuminated. All lights on the flight control panel were on (although hydraulic A & B were normal pressure; pressurization panel had all character segments flashing as if in a test mode; bottom row of Engine and Wing Anti-Ice lights were on (can't recall exactly if they were dim or bright); Green APU Squib light was on and Bottle Empty lights forward of Squib lights may have been on; All pitot static lights were on, Window Heat lights were all off.

F/O (PF) assisted in crosschecks of instruments and mentioned noticing a faint electrical odor. My initial concern was losing cabin pressure, probably because that panel was flashing the most impressively. Both pilots at this point un-stowed our O2 masks in a ready manner. We were negotiating a weather avoidance route to the south along a southwest to northeast line of thunderstorms during this time. I felt in need of assistance and called Maintenance to request they call Dispatch and have them call us. When Dispatch called, I requested a conference patch to Maintenance. When everyone was on, I relayed our indications. During this time, I also discovered a popped circuit breaker on the P6-2 panel labeled, Zone 5, under Annunciators.

With so many unrelated, yet each in and of itself, serious systems failure indications, I asked for suggestions. Maintenance checked aircraft history, found none of an electrical or circuit breaker problem and said it should be all right to reset the CB. Within 30 seconds of resetting the CB, we smelled increased electrical fumes, donned our masks, and performed the boxed items for smoke/fumes. I told the F/O that we would be definitely diverting to [a nearby airport]. I left the ATC frequency (and intercom) to tell the F/As the situation and made a quick PA to the customers informing them of our intention to divert. By the time I was back on ATC and intercom, the F/O had declared an emergency, gotten clearance to [divert airport] and initiated a rapid descent. We got around the line of thunderstorms to the east and would make it in VMC. We landed uneventfully.

## Narrative: 2

Took too long to get Maintenance on the conference call. Also, they shouldn't have directed us to reset the circuit breaker. Additionally, we shouldn't have reset the circuit breaker when they directed.

## **Synopsis**

B737-300 flight crew experienced electrical malfunction that included multiple flashing lights and electrical smoke. Crew declared an emergency and diverted to a suitable airport.

## Time / Day

Date : 201206  
Local Time Of Day : 0601-1200

## Place

Locale Reference.Airport : SNA.Airport  
State Reference : CA  
Altitude.AGL.Single Value : 0

## Aircraft

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

## Component

Aircraft Component : Galley Furnishing  
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)  
ASRS Report Number.Accession Number : 1017295

## Events

Anomaly.Aircraft Equipment Problem : Less Severe  
Anomaly.Flight Deck / Cabin / Aircraft Event : Smoke / Fire / Fumes / Odor  
Detector.Person : Flight Attendant  
Were Passengers Involved In Event : N  
When Detected : Aircraft In Service At Gate  
Result.General : Maintenance Action  
Result.General : Declared Emergency

## Assessments

Contributing Factors / Situations : Aircraft  
Primary Problem : Aircraft

## **Narrative: 1**

During the Before Starting engines checklist we got a call from the aft galley Flight Attendant advising she had a fire in the coffee maker! We called CFR and the Flight Attendant selected power off on the coffee maker and pulled its associated circuit breaker. Flight Attendant reported sparks, flames & smoke from back of the coffee maker in the aft galley. CFR showed up and the Fire Chief said there was no fire. I was not clear as to what they define as a "fire." When the coffee maker was removed the electrical probes and wire clearly were burnt. I could see smoke when I went aft to analyze the situation and opened the 4R door so the smoke could be vented away. The Flight Attendant showed excellent judgment in pushing "off" button and pulling the circuit breaker.

A Mechanic removed the coffee maker, signed off book and we departed.

## **Synopsis**

A B737-800 Captain reported a sparking/smoking coffee maker in the aft galley prior to leaving the gate. The Flight Attendant shut off the device and pulled the associated CB. After inspection by CFR and the removal of the unit the flight departed.

## Time / Day

Date : 201206  
Local Time Of Day : 1801-2400

## Place

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

## Environment

Work Environment Factor : Poor Lighting  
Light : Night  
Ceiling : CLR

## Aircraft

Reference : X  
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 : Parked

## Component : 1

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

## Component : 2

Aircraft Component : Parking Brake  
Aircraft Reference : X  
Problem : Improperly Operated  
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  
Experience.Flight Crew.Total : 12000  
Experience.Flight Crew.Last 90 Days : 80  
Experience.Flight Crew.Type : 4000  
ASRS Report Number.Accession Number : 1016822

Human Factors : Communication Breakdown  
Human Factors : Confusion  
Communication Breakdown.Party1 : Flight Crew  
Communication Breakdown.Party2 : Ground Personnel

## Events

Anomaly.Aircraft Equipment Problem : Less Severe  
Anomaly.Flight Deck / Cabin / Aircraft Event : Smoke / Fire / Fumes / Odor  
Anomaly.Deviation - Procedural : Published Material / Policy  
Anomaly.Ground Event / Encounter : Other / Unknown  
Detector.Person : Ground Personnel  
Were Passengers Involved In Event : N  
When Detected : Aircraft In Service At Gate  
Result.General : Declared Emergency  
Result.General : Evacuated

## Assessments

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

## Narrative: 1

Our jet was parked in remote parking. APU air was working for approximately five minutes but then quit. We requested the air start cart for a #1 engine start. During the #1 engine start ground personnel started yelling through the interphone that we were moving. With no lights in the area, we could not detect any aircraft movement, but we shut down the #1 engine when we saw smoke coming from in front of the right wing and #2 engine. CFR was notified and we shut down and left the aircraft through the air stairs.

During the event, the ground person was very difficult to hear. Later, in Operations, one of the ramp personnel commented that the headset had been giving them trouble in the past.

## Synopsis

A ground crew headset, previously noted as "giving them trouble" may have contributed to a breakdown in communication between the flight and ground crews when an engine start at a remote location at night ran amok due to uncommanded movement of the aircraft.

## Time / Day

Date : 201206  
Local Time Of Day : 0001-0600

## Place

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

## Environment

Light : Daylight

## Aircraft

Reference : X  
ATC / Advisory.Ramp : ZZZ  
Aircraft Operator : Air Carrier  
Make Model Name : A321  
Crew Size.Number Of Crew : 2  
Operating Under FAR Part : Part 121  
Flight Plan : IFR  
Mission : Passenger  
Flight Phase : Parked

## 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 : 1015884  
Human Factors : Training / Qualification  
Human Factors : Troubleshooting  
Human Factors : Physiological - Other  
Human Factors : Situational Awareness

## Events

Anomaly.Flight Deck / Cabin / Aircraft Event : Smoke / Fire / Fumes / Odor  
Detector.Person : Flight Attendant  
When Detected : In-flight  
Result.General : Flight Cancelled / Delayed  
Result.General : Physical Injury / Incapacitation  
Result.General : Maintenance Action  
Result.Flight Crew : Took Evasive Action  
Result.Aircraft : Equipment Problem Dissipated

## **Assessments**

Contributing Factors / Situations : Aircraft

Primary Problem : Aircraft

### **Narrative: 1**

Shortly after arriving at the gate in our destination, the C Flight Attendant reported to me that she experienced symptoms and smelled an odor consistent with previous cabin odor reports turned in by other crew members. Her experience, as reported to me, occurred during takeoff and climb to approximately 10,000 FT. She stated that she smelled a dirty sock or musty odor and experience burning eyes at position 2R (A321) beginning at initial takeoff thrust application, with the smell and burning eye sensation gradually subsiding during the climb out, stating that she recalled not smelling the odor at about the time that I turned off the PED at 10,000 FT. Her only complaint beyond those was a sensation in the back of her throat throughout the remainder of the flight. None of the other flight attendants or the cockpit crew members experienced what the C Flight Attendant experienced. After receiving her report, I contacted Maintenance through Dispatch to report the odor occurrence. I advised the Flight Attendant to contact her supervisor and get advice on whether she should seek medical care, and also advised the rest of the crew to do the same if they thought it was necessary. The aircraft was written up, an Aircraft Cabin Odor Report was filled out by me with the assistance of the effected Flight Attendant, and the logbook page and Odor Report were faxed to Maintenance. Our outbound flight was subsequently canceled, and at the time of this writing, the aircraft is awaiting Maintenance personal from a nearby maintenance station to trouble shoot the problem.

### **Synopsis**

An A321 Flight Attendant reported a dirty socks odor and experienced symptoms during takeoff and climb to 10,000 FT. The aircraft was removed from service at its destination.

## Time / Day

Date : 201206  
Local Time Of Day : 1201-1800

## Place

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

## Environment

Flight Conditions : VMC  
Light : Daylight

## Aircraft

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

## Component

Aircraft Component : Pilot Seat  
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  
Experience.Flight Crew.Last 90 Days : 115  
Experience.Flight Crew.Type : 8000  
ASRS Report Number.Accession Number : 1015826  
Human Factors : Physiological - Other

## Events

Anomaly.Aircraft Equipment Problem : Less Severe  
Anomaly.Flight Deck / Cabin / Aircraft Event : Smoke / Fire / Fumes / Odor  
Anomaly.Deviation - Procedural : Published Material / Policy  
Anomaly.Deviation - Procedural : Maintenance  
Detector.Person : Flight Crew  
When Detected : In-flight

Result.General : Maintenance Action  
Result.General : Physical Injury / Incapacitation

## Assessments

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

## Narrative: 1

First Officer's seat stuck/not working well while [we were] departing on a charter turn. Decided to have Maintenance (first stop positioning leg) make a fix. They sprayed the seat tracks (and the floor) 'heavily' with "WD40." They even chuckled when I mentioned how strong the fumes were after their fix. Hours later, while descending into our off station stop, the Captain asked me how I was feeling. I said I was mildly nauseated (I ate the free crew meal supplied on the charter. The Captain brought his own healthy lunch). He replied feeling the same. After landing, we discussed this further and thought it may be linked to the nasty smell of the WD40 we noticed most of that leg. Since we were ferrying the jet back (with no passengers), we decided to leave the cockpit door open to further ventilate the cockpit. On this next leg, we did not smell anything nor felt bad. However, as we were approaching a lot of thunderstorm weather on our return, the Captain decided to close the cockpit door to avoid any distractions or extra lighting from the galley. At this point, we thought nothing of the prior smell before. However, moments later after the door was closed, we both reported the smell being apparent and started to wonder, "Do I feel kind of lousy because this is a long day, or are the fumes making us sick?" We opened the door again and the smell was no longer noticeable. We discussed the obvious boldface checklist and decided it was not necessary unless the smell returned or we reported feeling any worse. After extensive vectoring, we landed late without any further smell or sick feeling. We called Maintenance to come clean up the excessive spray all over the track and floor on the First Officer side. Maintenance reported to us that that spray was not allowed. We were puzzled but wondered, "May there be a reason why...not to poison the air the pilots breathe in the cockpit" I have no idea what is allowed or not. I have no conclusive evidence that our bad feeling was related to the spray. I do know that we both reported smelling the spray and feeling fairly sick at the same time independently. We also reported those feelings going away at the same time. We also were puzzled as to why a potential unauthorized procedure was completed on our flight by our Maintenance. Of course, your mind starts to wonder what is really the reason, "Are we imagining it now?" The Maintenance response of the spray not being allowed was the last piece that convinced me to take the time to file this report. Even if it was allowed, the fumes were a big distraction and not well received by both of us.

## Synopsis

A B737 First Officer reported becoming ill from WD40 chemical fumes after maintenance treated his sticking seat track. He later found that WD40 use is not allowed in the cockpit.

## Time / Day

Date : 201206  
Local Time Of Day : 0601-1200

## Place

Locale Reference.ATC Facility : ZZZZ.ARTCC  
State Reference : FO  
Altitude.MSL.Single Value : 34000

## Environment

Light : Daylight

## Aircraft

Reference : X  
ATC / Advisory.Center : ZZZZ  
Aircraft Operator : Air Carrier  
Make Model Name : MD-11  
Crew Size.Number Of Crew : 2  
Operating Under FAR Part : Part 121  
Flight Plan : IFR  
Mission : Cargo / Freight  
Flight Phase : Cruise  
Airspace.Class A : ZZZZ

## 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 : 1015376  
Human Factors : Troubleshooting  
Human Factors : Time Pressure  
Human Factors : Communication Breakdown  
Human Factors : Situational Awareness  
Communication Breakdown.Party1 : Flight Crew  
Communication Breakdown.Party2 : Dispatch  
Communication Breakdown.Party2 : Ground Personnel

## 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 : 1015721  
Human Factors : Workload  
Human Factors : Troubleshooting  
Human Factors : Time Pressure  
Human Factors : Distraction  
Human Factors : Communication Breakdown  
Human Factors : Situational Awareness  
Communication Breakdown.Party1 : Flight Crew  
Communication Breakdown.Party2 : Dispatch  
Communication Breakdown.Party2 : Ground Personnel

## Events

Anomaly.Aircraft Equipment Problem : Critical  
Anomaly.Flight Deck / Cabin / Aircraft Event : Smoke / Fire / Fumes / Odor  
Detector.Automation : Aircraft Other Automation  
Detector.Person : Flight Crew  
When Detected : In-flight  
Result.General : Declared Emergency  
Result.Flight Crew : Diverted  
Result.Flight Crew : FLC complied w / Automation / Advisory  
Result.Flight Crew : Took Evasive Action  
Result.Flight Crew : Landed in Emergency Condition

## Assessments

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

## Narrative: 1

Aircraft was at cruise FL340 when a Fire Suppression System alert appeared on glare shield. No other fire indications were present in cockpit, Fire Suppression System (FSS) main panel in courier section displayed "Fire Suppression in Progress." Temperature readout showed 451 degrees on panel, a quick inspection of main deck revealed foam overflowing pallet positions 7L and 7R. Informed Dispatch of event and the two loading positions of discharge, it was determined one of the two position was loaded at the previous foreign airport. Decision was made to divert. Emergency was declared, proceeded direct to the airport. Uneventful approach and landing, fire truck waiting. Limited assistance with ground personnel, language difficulties, poor SATCOM and cell phone coverage.

## Narrative: 2

When 3 hours into the flight at FL340, the 2 Fire Suppression Systems (FSS) warning lights lit up. No other associated warning messages were presented to us. I put on a portable O2 mask and went back to check the main cargo compartment. I saw that the FSS panel indicated that fire suppression was ongoing on the 7L/7R cargo positions and it was confirmed when saw thick fire suppression agent covering the pallet and the area around 7L cargo position. I reported this to the Captain and after a while he decided to have a look for himself. When he came

back we started planning our actions and, with the coordination of Dispatch we decided to declare an emergency and divert to a nearby foreign airport. The descent to approach was not a high speed, but rather at a controlled and expedited maneuver and we were vectored to our landing runway approach by foreign controllers precisely. The landing was uneventful and emergency men and equipment were on standby during our approach and escorted us during the landing and subsequent taxi to a remote part of the aerodrome. When we opened the door, the airport personnel were apprised of our condition and we showed them the area in the cargo compartment where foam was discharged. They were not able to verify the presence of any fire or heat in the affected area as it was engulfed in foam. Afterward, the rest of the day was spent coordinating cargo handling, maintenance and security for the aircraft as well as, customs and immigration protocol for the Captain and myself. The heat source which triggered the activation of the FSS may have been prevented but, the FSS did work as advertised by expending fire suppression agent into the suspected heat source in the 7L/7R cargo positions. Most importantly, it gave the flight crew plenty of time to assess the situation and plan for the consequences. There is, however, a need for clear directives and/or QRH actions if/when an FSS event happens. One very important concern that we raised, was whether the FSS had spent all its agent into the heat source and, if it was still capable of suppressing additional heat sources that may arise later in flight, either from the same source or from another cargo position. We believed this was a major contributory factor, among many, in our decision to divert to the most suitable airport and land safely.

## **Synopsis**

A MD-11 cargo compartment Fire Suppression System alerted and activated at cruise so after visually verifying foaming action, an emergency was declared and the flight diverted to a nearby foreign airport.