

## ASRS Database Report Set

# Air Carrier (FAR 121) Flight Crew Fatigue Reports

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Report Set Description .....	A sampling of reports referencing air carrier (FAR 121) flight crew fatigue issues and duty periods.
Update Number .....	16
Date of Update.....	July 6, 2011
Number of Records in Report Set .....	50
Number of New Records in Report Set.....	41
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: 942117** (1 of 50)

**Synopsis**

A fatigued CRJ700 Captain failed to slow to 250 KTS below 10,000 FT after ATC asked him to maintain 290 KTS while being vectored and given a descent with a crossing restriction. A long duty day in weather was a factor.

**ACN: 941808** (2 of 50)

**Synopsis**

B757 flight crew fails to descend in a timely manner to comply with a crossing restriction. Fatigue was cited as a contributing factor.

**ACN: 941654** (3 of 50)

**Synopsis**

A Dash 8 First Officer detailed fatigue inducing rescheduling which culminated in her refusal to complete the scheduled flight sequence due to cumulative fatigue.

**ACN: 940973** (4 of 50)

**Synopsis**

A B757-200 flight crew wrote up the aircraft for excessive noise in the cockpit and described the company actions to address the issue on their fleet as inadequate.

**ACN: 940441** (5 of 50)

**Synopsis**

ATL departure encountered wind shear and was unable to turn as directed, the reporter noting fatigue as playing a significant role in his/her complacency considering the weather.

**ACN: 937376** (6 of 50)

**Synopsis**

CRJ200 flight crew reports taking off with an incorrect flap setting due to a deferred FMS and the time pressures of operating a delayed flight segment. The error is detected at 100 KTS by the First Officer and the Captain elected to continue with sufficient runway remaining.

**ACN: 936266** (7 of 50)

**Synopsis**

A B777 flight crew reported encountering wake turbulence from a preceding B777 on arrival at EGLL. The Captain hand flew slightly high on the glideslope to avoid the preceding aircrafts' wake and in the process a slightly delayed landing configuration occurred.

**ACN: 934998** (8 of 50)

### **Synopsis**

An A319 flight crew suffered repeated failures of the ELAC 2 computer that responded only momentarily to ECAM correction procedures before failing again. They landed safely at their destination using ALTN and DIRECT LAW approach and landing procedures.

**ACN: 934982** (9 of 50)

### **Synopsis**

When their U.S. mainland to South America flight was canceled due to a maintenance issue, a B767-300 flight crew was reassigned to a technically legal but much longer duty day, a three segment (DHD, ferry, revenue flight) itinerary, which proved predictably and excessively fatiguing.

**ACN: 932613** (10 of 50)

### **Synopsis**

Inbound from the east on a clear day, an A319 flight crew cleared for a visual approach to PDX received a EGPWS "CAUTION TERRAIN" alert followed shortly by a "PULL UP, TERRAIN" warning with which they complied.

**ACN: 931888** (11 of 50)

### **Synopsis**

B737-800 flight crew fails to advise Dispatch of a takeoff from Runway 32L at T10. Numbers provided were for Runway 32L full length, takeoff was normal and pilot fatigue cited as a contributing factor.

**ACN: 931878** (12 of 50)

### **Synopsis**

An A320 First Officer called in fatigued after being reassigned flying that would extend his awake time to nineteen hours with 9+56 flight hours and fourteen hours on duty.

**ACN: 931600** (13 of 50)

### **Synopsis**

On a night time arrival to ROA and air carrier aircraft responded to an EGPWS warning that appeared to have been triggered in error as no obstacles were in the vicinity and ATC advised they had received no alerts.

**ACN: 930817** (14 of 50)

### **Synopsis**

An A320 had an APU fire warning while parked at the gate with the APU OFF and the aft cargo door open so fire fighting procedures were followed but fire fighters found no fire.

**ACN: 929701** (15 of 50)

### **Synopsis**

A B747 had an engine compressor stall on landing which turned into a fire as the aircraft was taxied to the ramp after a twenty hour duty day. ATC identified the engine problem before the fire warning but the crew elected no assistance.

**ACN: 929426** (16 of 50)

### **Synopsis**

A B767-300 had a leading edge slat asymmetry fault during preflight which was repaired but reoccurred again at cruise when the flap gauge falsely indicated the flaps extended just beyond up. The flight continued to its destination because the flight controls felt normal.

**ACN: 929021** (17 of 50)

### **Synopsis**

A B757 Captain rejected a takeoff for a door light and because Maintenance would not drive out to the parking pad to inspect the door the aircraft was taxied a great distance back to the terminal for a short visual inspection.

**ACN: 927797** (18 of 50)

### **Synopsis**

An A320 had a wing anti-ice valve fail open after takeoff then the BSCU and LGCIU ECAM alerted during approach. The BSCU reset but the LGCIU remained on and after two go arounds the fatigued crew declared an emergency and landed safely.

**ACN: 927212** (19 of 50)

### **Synopsis**

An E-145 flight crew encountered flight control problems and battled fatigue at the end of a 16 hour duty day. Crew Scheduling agreed only to an inadequate duty break before their report for duty the following AM.

**ACN: 926446** (20 of 50)

### **Synopsis**

A319 Captain describes a fatiguing four day trip during which the time on duty far exceeds the rest periods.

**ACN: 926130** (21 of 50)

## Synopsis

A commuter jet crew accepted a night visual approach to Runway 24 at ROA in contravention to company policy. Passing 3,000 FT MSL they received and responded to an EGPWS terrain warning.

**ACN: 925886** (22 of 50)

## Synopsis

An A319 Captain reported that he missed an assigned descent crossing restriction after slowing his airspeed for turbulence. Descent path deviation detection was difficult because of fatigue, the PFD Level Off point is updated slowly and its symbology different from his previous aircraft.

**ACN: 925752** (23 of 50)

## Synopsis

An EMB140 FMC was setup as a courtesy by the previous First Officer but an incorrect LAX SID was entered for the late evening departure time and the oncoming crew did not pick it up until advised by ATC.

**ACN: 925678** (24 of 50)

## Synopsis

Captain of double crewed international flight describes fatigue experienced when a maintenance delay pushes the flight crew to their maximum duty day of 19.5 hours.

**ACN: 925499** (25 of 50)

## Synopsis

A B727 Engineer reported that the Captain, on duty for fourteen hours, failed to reselect the correct NAVAID allowing the aircraft to deviate before ATC alerted.

**ACN: 925456** (26 of 50)

## Synopsis

A319 First Officer describes fatiguing out and back red eye flights with over seven hours of flight time.

**ACN: 925414** (27 of 50)

## Synopsis

A fatigued B767 Captain taxied into a congested ZGSZ ramp area at night to delay takeoff for weight reasons and inadvertently entered an incorrect ramp which alarmed the Controller. Fatigue and language were the main issues.

**ACN: 925181** (28 of 50)

## Synopsis

Air Carrier Captain reports calling in fatigued during the trip pairing following a continuous duty overnight, when maintenance delays push the duty day beyond the originally scheduled 13 hours.

**ACN: 925174** (29 of 50)

## Synopsis

A First Officer on a RDM night visual approach was slow to correct for terrain clearance and executed an escape maneuver in response to an EGPWS Terrain Warning. A normal approach and landing followed the return to profile.

**ACN: 922111** (30 of 50)

## Synopsis

A serious breakdown in communication between the Captain and First Officer regarding the Maintenance deferral of a malfunctioning Pneumatic duct temperature sensor ultimately resulted in the refusal of the First Officer and the flight attendants to staff a subsequent flight.

**ACN: 921727** (31 of 50)

## Synopsis

A Q-400 flight crew refused further assignments due to fatigue during the fourth day of a five day flight sequence. The company applied modest disciplinary actions and docked them pay for the flying they were unable to perform due to feeling unfit to fly.

**ACN: 921052** (32 of 50)

## Synopsis

Three B767-300 pilots were ordered to fly a return leg on an international trip which would put the crew over 12 flight hours in 24. The Company knew prior to departure that the problem would exist.

**ACN: 920653** (33 of 50)

## Synopsis

An A320 Captain reported that the crew failed to select the engine bleeds off for a BLEEDS OFF takeoff because the First Officer was starting an engine, they were dealing with complex BOS taxi requirements, and experiencing fatigue.

**ACN: 920543** (34 of 50)

## Synopsis

An aircraft departed ATL after receiving a revised PDC SID which included the NUGGT FOUR. The crew failed to remove the SUMMT FOUR from the FMC and so had a track deviation on departure.

**ACN: 920371** *(35 of 50)*

### **Synopsis**

On climbout an A300 Flight Crew failed to level at their cleared altitude when the pilot flying momentarily lost his NAV displays and the pilot not flying was heads down correcting a CDU nav entry error.

**ACN: 920227** *(36 of 50)*

### **Synopsis**

A tired CRJ flight crew accepted a night visual approach into AVL with surrounding high terrain despite having agreed to not do so during a pre-departure briefing. Upon beginning descent while on downwind they received an EGPWS terrain warning, climbed back to altitude and continued downwind to an appropriate spot from which to follow ILS guidance.

**ACN: 920078** *(37 of 50)*

### **Synopsis**

Fatigue, lack of familiarity with the area, and the newly installed EFB contributed to the failure of a B727 flight crew to comply with an ATC crossing restriction on descent.

**ACN: 919714** *(38 of 50)*

### **Synopsis**

An A320 pilot on reserve duty in the morning was called for a trip departing late in the evening and because of illness and fatigue refused the trip.

**ACN: 919528** *(39 of 50)*

### **Synopsis**

Flight crew arriving SLLP and cleared for the ILS Z Runway 10 approach reports TCAS RA and NMAC with aircraft climbing under them on the PAZ 305 radial. A maximum rate climb and maneuvering eventually results in a clear of conflict TCAS announcement.

**ACN: 919170** *(40 of 50)*

### **Synopsis**

Following a late runway change at DFW the flight crew of a B737-700 lined up visually with the wrong runway. The discrepancy between their visual picture and the ILS/NAV displays alerted them to make a go around and reorient themselves.

**ACN: 918702** (41 of 50)

### **Synopsis**

An international Captain described an onerous flight sequence in the Pacific he believed to be unsafe due to cumulative and predictable fatigue.

**ACN: 917804** (42 of 50)

### **Synopsis**

A B737-800 First Officer turned the engine bleeds off after arrival the night before and forgot to open them the next morning during preflight. After climbing through 10,000 FT the CABIN ALTITUDE WARNING sounded, the bleeds were opened and pressurization restored.

**ACN: 916923** (43 of 50)

### **Synopsis**

The loss of aileron and elevator horn anti-icing system while operating in moderate icing conditions likely contributed to an ATR-42 flight crew's failure to maintain cleared altitudes while returning to their departure airport.

**ACN: 916413** (44 of 50)

### **Synopsis**

A B747-400 Captain believes he is observing a general deterioration in the maintenance standards at his airline, this report dealt with a detailed report of failed navigation displays, smoke and fire, fuel concerns and flight into a typhoon after 16 plus hours on duty.

**ACN: 916382** (45 of 50)

### **Synopsis**

B737 Captain reports a late descent clearance from Approach Control in IMC with a strong quartering tailwind. The approach becomes unstabilized and the crew elects to go around without pushing the TOGA button. This requires the pilot flying to ignore the flight director and attempt to fly raw data missed approach causing minor altitude deviations.

**ACN: 915712** (46 of 50)

### **Synopsis**

Following a stressful layover which provided neither rest nor proper nourishment, the Captain of a B767-300 returned to the departure gate when he became ill during taxi for takeoff.

**ACN: 913773** (47 of 50)

## **Synopsis**

Air Carrier flight crew reports confusion over the requirement to fly the holding pattern procedure turn from SUG to the ILS 34 approach at AVL.

**ACN: 912360** *(48 of 50)*

## **Synopsis**

CRJ200 Captain describes fatigue inducing six to nine leg duty days with up to six days on duty in a row.

**ACN: 911467** *(49 of 50)*

## **Synopsis**

A Dash 8 Captain reported instances of inaccurate planned fuel loads resulting in shortfalls of reserves enroute despite the lack of any obvious reasons for increased fuel burn. Reporter believes the fuel planning shortfalls are the result of conscious acts on the part of the company to maximize payloads.

**ACN: 911075** *(50 of 50)*

## **Synopsis**

A300 flight crew experienced a dual pack trip climbing out of FL255 which cannot be reset. During descent, while coordinating with Maintenance, both packs came back on the line. The crew elected to divert and discovers after landing that the APU may have been running in flight.

# Report Narratives

## Time / Day

Date : 201104  
Local Time Of Day : 1801-2400

## Place

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

## Environment

Light : Dusk

## Aircraft

Reference : X  
ATC / Advisory.Center : ZZZ  
Aircraft Operator : Air Carrier  
Make Model Name : Regional Jet 700 ER/LR (CRJ700)  
Crew Size.Number Of Crew : 2  
Operating Under FAR Part : Part 121  
Flight Plan : IFR  
Mission : Passenger  
Flight Phase : Descent  
Route In Use : Vectors  
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 Flying  
Qualification.Flight Crew : Air Transport Pilot (ATP)  
ASRS Report Number.Accession Number : 942117  
Human Factors : Workload  
Human Factors : Distraction  
Human Factors : Fatigue  
Human Factors : Human-Machine Interface  
Human Factors : Situational Awareness

## Events

Anomaly.Deviation - Speed : All Types  
Anomaly.Deviation - Procedural : FAR  
Detector.Person : Flight Crew  
When Detected : In-flight

Result.Flight Crew : Took Evasive Action

Result.Flight Crew : Became Reoriented

## **Assessments**

Contributing Factors / Situations : Human Factors

Primary Problem : Human Factors

## **Narrative: 1**

On descent we had been given maintain 290 KTS for traffic and several vectors with a crossing restriction. I did one heck of a job of maintaining 290 KTS, but failed to slow to 250 below 10,000 FT. I detected the error and immediately reduced power, approximately 30 seconds after reducing power ATC asked us our speed. Hate to sound as if I am making excuses but here it is; long duty day (on duty approx 12.75 hours), gate return 1st flight of the day due to ATC, flew 3 legs without FMS and APU, crossed front 3 times (turbulent conditions), complex environment and inattention to detail. Pay more attention, do a better job of briefing pilot not flying of my intentions. Don't be afraid to call-in fatigued.

## **Synopsis**

A fatigued CRJ700 Captain failed to slow to 250 KTS below 10,000 FT after ATC asked him to maintain 290 KTS while being vectored and given a descent with a crossing restriction. A long duty day in weather was a factor.

## Time / Day

Date : 201104  
Local Time Of Day : 1801-2400

## Place

Locale Reference.ATC Facility : PCT.TRACON  
State Reference : VA  
Altitude.MSL.Single Value : 10000

## Environment

Ceiling : CLR

## Aircraft

Reference : X  
ATC / Advisory.TRACON : PCT  
Aircraft Operator : Air Carrier  
Make Model Name : B757-200  
Crew Size.Number Of Crew : 2  
Operating Under FAR Part : Part 121  
Mission : Passenger  
Flight Phase : Descent  
Route In Use.STAR : Barin  
Airspace.Class E : PCT

## 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 : 23000  
Experience.Flight Crew.Last 90 Days : 220  
Experience.Flight Crew.Type : 3000  
ASRS Report Number.Accession Number : 941808  
Human Factors : Fatigue

## Person : 2

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

Experience.Flight Crew.Total : 14721  
Experience.Flight Crew.Last 90 Days : 91  
Experience.Flight Crew.Type : 3813  
ASRS Report Number.Accession Number : 941814  
Human Factors : Situational Awareness

## Events

Anomaly.Deviation - Altitude : Crossing Restriction Not Met  
Anomaly.Deviation - Procedural : Clearance  
Detector.Person : Flight Crew  
When Detected : In-flight  
Result.Air Traffic Control : Issued New Clearance  
Result.Air Traffic Control : Issued Advisory / Alert

## Assessments

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

## Narrative: 1

We were cleared to cross FALKO at 250/10,000. We were at FL220. I got busy with the descent checklist while the pilot flying was checking the crossing altitudes on the BARIN arrival in the FMC. Suddenly he said, "We need lower". I called for lower and got the 250/10,000 clearance again (I could tell by the Controller's voice.) I looked up and saw that the altitude was still set at 220. I dialed in 10,000 and the pilot flying pulled the plug. Then came a frequency change from ZDC Center to Potomac Approach. I switched frequencies and saw we would not make the crossing. On check-in I requested relief at FALKO (we were only a few miles from it). The Controller said there was no traffic out there but didn't specifically issue relief. Then he said we had the wrong frequency. By the time I got the correct one we were over FALKO at 13,000. The next Controller did not comment. We continued the Barin arrival without further event, except that the pilot flying was momentarily confused with the waypoints and their respective crossing restrictions, misreading the labeling (a very common mistake when fatigued). Both of us were tired. Both had completed an international trip the prior day. I came out of a trip with the wakeup call late in the evening.) The pilot flying came out of another international location. I slept poorly that night, if at all, and took the crew desk's call very early in the morning at home. It was a minimum call-out. I had a couple of short naps during the day.

## Narrative: 2

Captain asked for lower anticipating a clearance to cross FALKO at 10,000 FT and 250 KTS. After issuing clearances to two or three other aircraft, the Washington Center Controller gave clearance to cross FALKO at 10,000 FT and 250 KTS and a frequency change to Potomac Approach. I immediately began an idle descent. The Captain checked in and told the Controller we would need relief at FALKO. The Controller responded that there was no traffic and that would not be a problem, but gave the Captain another frequency change saying that was the correct frequency for us. The Captain was unable to confirm that we actually had been given relief from the 10,000 FT crossing restriction before we crossed the fix approximately 2,500 FT high. We were cleared to descend via the BARIN STAR. The remainder of the descent, approach and landing were normal.

## **Synopsis**

B757 flight crew fails to descend in a timely manner to comply with a crossing restriction. Fatigue was cited as a contributing factor.

## Time / Day

Date : 201104  
Local Time Of Day : 0601-1200

## Place

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

## Aircraft

Reference : X  
Aircraft Operator : Air Carrier  
Make Model Name : Dash 8 Series Undifferentiated or Other Model  
Crew Size.Number Of Crew : 2  
Operating Under FAR Part : Part 121  
Flight Plan : IFR

## Person

Reference : 1  
Location Of Person.Aircraft : X  
Location In Aircraft : Flight Deck  
Reporter Organization : Air Carrier  
Function.Flight Crew : First Officer  
Qualification.Flight Crew : Commercial  
Experience.Flight Crew.Total : 3100  
Experience.Flight Crew.Last 90 Days : 180  
ASRS Report Number.Accession Number : 941654  
Human Factors : Fatigue  
Human Factors : Human-Machine Interface  
Human Factors : Communication Breakdown

## Events

Anomaly.Flight Deck / Cabin / Aircraft Event : Other / Unknown  
Detector.Person : Flight Crew  
Were Passengers Involved In Event : N  
When Detected.Other  
Result.General : Work Refused

## Assessments

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

## Narrative: 1

After being on trips with late reports for several months I had a show time of XA30 am yesterday. It was show time that was fairly manageable but still a little early.

As a result of my body clock and circadian rhythm having been adjusted to a "second shift" lifestyle I slept approximately only 6 hours prior to my morning show time. Though I had a minor sleep deficit my having been on five days of scheduled time off enabled me to be well rested to perform my duty competently. During the course of the day I was notified by scheduling that I had been rescheduled for the following day for a very early morning show time for a 6 leg 12 hour day. I immediately advised the scheduler that would result in inadequate rest and a likely fatigue situation. She responded by telling me "we have to do what we have to do." I made no further comment and ended the conversation. I arrived after 6 legs into my scheduled RON without incident. Once in my room I was, as I expected, unable to fall asleep prior to midnight and in total managed only about 3.5 hours of sleep before waking at XU00 for a XU30 van. Initially I felt "OK" and decided to start the day and self-assess my fitness for duty as the day progressed. Over the course of the first flight, during the preflight, all phases of flight, I was making minor procedural errors but all were caught and resolved by cross-checking and using positive CRM. However, after completing the flight and doing a self-assessment it was clear I was suffering from fatigue. I then recognized I was not fit for duty without further rest and immediately notified scheduling after blocking in. I was made aware of my condition by experiencing common signs of fatigue: inability to focus or concentrate, and making minor errors that would not otherwise have been made. This fatigue event occurred due to a cumulative rest deficit. The initial rest deficit would have been resolved had I been allowed to remain on my awarded schedule as I would have easily caught up on needed sleep. The rest deficit was enhanced by a total disregard for safety and crew potential for fitness for duty on behalf of scheduling. Failure to consider the effect my preceding schedules would have on my ability to gain adequate rest for an early morning show time, and total disregard for my advisory to this effect. This airline endlessly demonstrates it is complete lack of concern for it's pilot's fitness for duty. Getting a flight covered should be secondary to safety, not the first concern. Scheduled crew cards for pilots even when having erratic report times are at least somewhat manageable as a pilot has forewarning insofar as how to adjust bedtimes appropriately for an upcoming trip. But random reschedules with no consideration for that pilot's prior schedule will nearly always cause a disruption in a pilot's rest and result in fatigue. I understand that the company is short staffed and reschedules are necessary. But better forethought and planning on behalf of scheduling may have prevented this fatigue event. Scheduling should have considered my potential for fitness for duty, taken my advisory seriously and switched me with a First Officer that had been doing early show times for the overnight and subsequent early AM show time, then put me on something else with a show time comparable to the first day. If such a thing was completely unable due to crew availability then the early flight should have been canceled. Solving crew shortage problems in this manner will only lead to more fatigue callouts and disrupt daily operations more then need be. Pilots are not cyborgs, we are not androids and we DO NOT have the ability to randomly reset our body clocks to meet the needs of an understaffed airline.

## **Synopsis**

A Dash 8 First Officer detailed fatigue inducing rescheduling which culminated in her refusal to complete the scheduled flight sequence due to cumulative fatigue.

## Time / Day

Date : 201103  
Local Time Of Day : 1201-1800

## Place

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

## Aircraft

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

## Component

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

## 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)  
Experience.Flight Crew.Total : 16000  
Experience.Flight Crew.Last 90 Days : 150  
Experience.Flight Crew.Type : 3000  
ASRS Report Number.Accession Number : 940973  
Human Factors : Communication Breakdown  
Human Factors : Distraction  
Human Factors : Physiological - Other  
Human Factors : Fatigue  
Communication Breakdown.Party1 : Flight Crew  
Communication Breakdown.Party2 : Flight Crew  
Communication Breakdown.Party2 : ATC

## Events

Anomaly.Aircraft Equipment Problem : Critical  
Anomaly.Flight Deck / Cabin / Aircraft Event : Other / Unknown  
Detector.Person : Flight Crew  
Were Passengers Involved In Event : N  
When Detected : In-flight  
Result.General : Maintenance Action

## **Assessments**

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

## **Narrative: 1**

During the course of the 5:45 hour flight the level of noise in the cockpit resulted in excess of 15 miss-communications with ATC. At one point in the flight we discussed diverting the flight and landing short due to the noise. We agreed after some discussion to continue to our destination. By the time we landed we were both extremely fatigued. The First Officer complained about physical discomfort in his ears. This aircraft is, by far, one of the worst for noise I have flown to date and is UNSAFE for flight in this condition. I wrote this up as "so excessive it interferes with the safe operation of aircraft." We requested Maintenance meet the aircraft on arrival. I explained the plane was unsafe for flight, and if assigned this aircraft for the return flight both pilots would refuse to accept it. We had 15 minute discussion on new procedures for cleaning duct work. I was advised that a complete duct cleaning requires 36 hours to complete. While I understand this procedure is expensive and requires valuable down time, it MUST be done. After checking the maintenance log I see only a partial cleaning was performed. This band-aid approach we take to proper maintenance of these aircraft is woefully inadequate. In my opinion this "patch it up and send it down line" attitude we have at our Company is nothing short of dangerous and, if left unchecked, will end in a hull loss. That being said, at this time I am officially requesting of the Company, the Union and the FAA to be permitted to carry an approved noise meter for the purpose of accurately recording noise levels during non sterile portions of my flights. I would be willing to work with Maintenance Control in any fashion. If safety is truly our number one priority, then it is now time to act!

## **Synopsis**

A B757-200 flight crew wrote up the aircraft for excessive noise in the cockpit and described the company actions to address the issue on their fleet as inadequate.

## Time / Day

Date : 201103  
Local Time Of Day : 1801-2400

## Place

Locale Reference.ATC Facility : A80.TRACON  
State Reference : GA  
Altitude.AGL.Single Value : 600

## Environment

Flight Conditions : IMC  
Weather Elements / Visibility : Thunderstorm  
Weather Elements / Visibility : Windshear  
Light : Night

## Aircraft

Reference : X  
ATC / Advisory.TRACON : A80  
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 B : ATL

## 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 : 940441  
Human Factors : Fatigue

## Events

Anomaly.Deviation - Track / Heading : All Types  
Anomaly.Inflight Event / Encounter : Weather / Turbulence  
Detector.Person : Flight Crew  
When Detected : In-flight  
Result.Flight Crew : FLC complied w / Automation / Advisory

## Assessments

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

## **Narrative: 1**

Thunderstorms on and in vicinity of Atlanta airport. Aircraft had been continuously departing Runway 9L with no reported problems. We were cleared for takeoff, and performed a normal takeoff and initial climb. At approximately 500-600 FT AGL, we encountered severe wind shear. The airspeed dropped, the stall tape came into view, and we received a wind shear warning. The First Officer called for maximum power, spoilers in, I immediately complied, and the First Officer followed the command bars for escape guidance. The airspeed stabilized, but the aircraft was unable to climb for an extended period of time (I would guess 20 seconds or so, but I am not sure). ATC had issued a turn to 180, but we continued on runway heading, as I believed a turn was not prudent, also the flight director was commanding straight flight. I advised ATC that we had encountered wind shear. They asked what heading we needed, and at this point we were recovering, so I advised that 180 degrees would now be possible. They asked how much of an airspeed loss we encountered; I don't believe we lost much but I advised a 20 knot loss in order to convey the severity of the wind shear. I believe that fatigue played a significant role in my complacency in accepting the takeoff clearance, considering the weather. The local time was late, approximately 3 hours past my normal sleep time. I adopted the "lemming" mentality, believing that since many other aircraft had departed without complaint, and ATC had not issued a specific wind shear alert, and I was flying a CRJ900 which has excellent climb performance, that it was safe to depart. I allowed my desire to get to the hotel without further delay interfere with good judgment, as we watched a particularly large cell approach the field, and I did not wait for it to clear the field and departure path. [I] realize that had the wind shear been just a bit stronger we might not have been able to escape, I have more respect for thunderstorms over the departure path, and will take this into consideration in the future.

## **Synopsis**

ATL departure encountered wind shear and was unable to turn as directed, the reporter noting fatigue as playing a significant role in his/her complacency considering the weather.

## Time / Day

Date : 201103  
Local Time Of Day : 1201-1800

## Place

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

## Environment

Flight Conditions : VMC  
Light : Daylight

## Aircraft

Reference : X  
ATC / Advisory.Tower : ZZZ  
Aircraft Operator : Air Carrier  
Make Model Name : Regional Jet 200 ER/LR (CRJ200)  
Crew Size.Number Of Crew : 2  
Operating Under FAR Part : Part 121  
Flight Plan : IFR  
Flight Phase : Takeoff

## Person : 1

Reference : 1  
Location Of Person.Aircraft : X  
Location In Aircraft : Flight Deck  
Reporter Organization : Air Carrier  
Function.Flight Crew : Captain  
Function.Flight Crew : Pilot Not Flying  
Qualification.Flight Crew : Air Transport Pilot (ATP)  
ASRS Report Number.Accession Number : 937376  
Human Factors : Fatigue  
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 : Pilot Flying  
Function.Flight Crew : First Officer  
Qualification.Flight Crew : Commercial  
ASRS Report Number.Accession Number : 937380

Human Factors : Fatigue  
Human Factors : Time Pressure

## Events

Anomaly.Deviation - Procedural : Published Material / Policy  
Anomaly.Deviation - Procedural : FAR  
Anomaly.Ground Event / Encounter : Other / Unknown  
Detector.Person : Flight Crew  
When Detected : In-flight  
Result.General : None Reported / Taken

## Assessments

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

## Narrative: 1

We had been cross-referencing the QRH on each leg for takeoff thrust settings to have a second and independent thrust setting written down in case we forgot to have the ACARS data available when setting takeoff power (my version of an N1 caret). On each leg we requested and set full thrust settings from ACARS, because I felt like being conservative in a non-standard, non-FMS situation. The ACARS data was sent without removing the flex default. Consequently, in setting full thrust of 90.3%, our takeoff roll was less than if we used the flaps 20 flex setting. We departed using the full length of the runway (7,500 FT). I had been rescheduled to fly the remainder of day 4 of my trip with this crew, so this was my sixth consecutive work day. The event occurred on our third leg together. Scheduling had elected to assign me for [a flight] that was already running late by an hour and a half. I was told there were no reserves available to cover these two round trips, so they could run on time. I was deadheaded to the airplane with the deadhead flight delayed an hour and twenty-five minutes waiting for me to arrive from my one-time inbound flight. Consequently we ran over an hour late for our subsequent 3 legs together. The reserve First Officer was in his fifth consecutive day of flying with 5 legs assigned for day 5. We recognized the need to make efficient use of our turn times and not add to the delays to which the passengers had been subjected. The gate and ramp agents were keen to let us know that they were anxious to get us turned ASAP, as we progressed throughout the day. This aircraft had a deferred FMS. My First Officer had never experienced a deferred FMS before (i.e. where there is no information available on the CDU or PFD/MFD). Additionally, on the inbound leg we noticed that DME 2 information was erratic once or twice. (On this final leg DME 2 information became unavailable). The First Officer was familiar with the CRJ200 from his last job, but was off of IOE in just a month. He had not encountered true green needle flying in some time (nor had I for that matter). Task load was somewhat higher than normal prior to departure as we discussed our routing and set-up our frequencies for green needle flying. With low ceilings in the hub all day, ground delay programming was in effect with delays averaging 30 minutes at outstations. When we arrived I went to the gate to retrieve the release. When I checked to see if everything was set to begin boarding, the First Officer was completing his walk around and told me that he believed that we had suffered a bird strike. I examined the area and confirmed that it appeared to be blood and no damage so I elected to begin boarding after I had contacted Maintenance to ask

them to come perform an inspection. As this was in progress the Ramp Agent gave us the release. He mentioned that he remembered seeing some company material by the bag loader and he would check to see if it was something we had brought in or if it needed to go with us. The First Officer entered the release data into the FMS and while we were waiting for the takeoff data to come through, the Mechanic came on board and handed me the logbook. She said the bird strike inspection was complete and signed-off. When the door closed was when I remembered that Ground had asked for a 5 minute prior to push call for coordination of our wheels-up time from the traffic management unit. I told the First Officer to make the call and the same Ramp Agent came on the headset and said that they had loaded the company material and that it was 5 LBS in weight. I re-sent for landing data with the additional company material weight and as the engine start check to the line was being performed, Ground informed us our wheels-up time was six minutes hence. I told the Ramp Agent that we were ready for push back and told the First Officer to start both engines. I was distracted long enough with all of this that I didn't realize that I had not set the takeoff speeds. As the First Officer was starting the second engine I paged through to the speed page of the takeoff data and set the speeds quickly. I selected legs page after that out of habit, too quickly to notice a flaps 20 takeoff indicated. In being conscious of the short amount of time available I let myself be distracted. Flaps 8 takeoffs at this airport are most common in my experience, so I let past experience, being late, and not wanting to suffer even more delays overrule making sure that I had cross-checked everything. I called for flaps 8 and the First Officer selected them to 8 degrees. On the after start checklist I said flaps 8 and we verified that 8 degrees was selected. The First Officer performed the departure brief and then made the departure PA. I switched us to the Tower so we were monitoring the frequency and after the Flight Attendant responded, we were half way through the takeoff check, and the Tower cleared us for takeoff. We accepted the takeoff clearance as we were still 100 yards or so from the hold line. We finished the before takeoff checklist prior to crossing the hold-short line. As we reached 100 KIAS the First Officer as pilot flying make a remark on the intercom. I said, "What?" and he paused and then said, "I think this is a flaps 20 takeoff." I glanced down at the ACARS, which I had selected to takeoff data prior to being cleared for takeoff (with the FMS deferred and unavailable I had been doing this on the previous legs to have something relevant on the CDU) and sure enough he was correct. I saw we were passing the 5,000 FT remaining sign, but were now in excess of 120 KIAS. I made the decision to continue the takeoff.

## **Narrative: 2**

We performed a flaps 8 takeoff with ACARS data computed and set for a flaps 20 takeoff. As we were on the take-off roll I noted that I thought we should be at flaps 20 setting. The Captain noted our speed and runway remaining and decided to continue the departure. As I continued the takeoff, the Captain told me that we would add 15 KTS to our V1 speed. He also said that I should slowly initiate the rotation. We lifted off the ground with approximately 3,000 FT of runway remaining. The Captain also increased our V2 speed during climb out. This was our third leg on the same aircraft with the FMS deferred. We had takeoff data from the QRH for calculated full thrust takeoff N1 written down in addition to the ACARS flex takeoff numbers. The captain was using these full thrust settings during each leg since we had no N1 thrust carats due to the FMS being inoperative. The rest of the flight continued as normal. On push back we were given a wheels-up time that was a short time frame from when we initiated the push back from the gate. Also, the ramp crew added weight to the rear cargo compartment and informed us of that during our push. We re-ran the information in ACARS after the push back was

complete. The Captain called for flaps 8 after start checklist and we ran all of the subsequent checklists, but due to the non-standard set up of the instrumentation we both missed that it was a flap 20 and not flap 8 takeoff until early in the takeoff roll.

## **Synopsis**

CRJ200 flight crew reports taking off with an incorrect flap setting due to a deferred FMS and the time pressures of operating a delayed flight segment. The error is detected at 100 KTS by the First Officer and the Captain elected to continue with sufficient runway remaining.

## **Time / Day**

Date : 201103  
Local Time Of Day : 0001-0600

## **Place**

Locale Reference.Airport : EGLL.Airport  
State Reference : FO  
Relative Position.Angle.Radial : 091  
Relative Position.Distance.Nautical Miles : 6

## **Environment**

Flight Conditions : VMC  
Light : Daylight  
Ceiling : CLR

## **Aircraft : 1**

Reference : X  
ATC / Advisory.Tower : EGLL  
Aircraft Operator : Air Carrier  
Make Model Name : B777 Undifferentiated or Other Model  
Crew Size.Number Of Crew : 3  
Operating Under FAR Part : Part 121  
Flight Plan : IFR  
Mission : Passenger  
Nav In Use.Localizer/Glideslope/ILS : 9L  
Flight Phase : Final Approach

## **Aircraft : 2**

Reference : Y  
ATC / Advisory.Tower : EGLL  
Aircraft Operator : Air Carrier  
Make Model Name : B777 Undifferentiated or Other Model  
Operating Under FAR Part : Part 121  
Flight Phase : Final Approach

## **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 : 936266  
Human Factors : Situational Awareness  
Human Factors : Fatigue

## **Person : 2**

Reference : 2  
Location Of Person.Aircraft : X  
Location In Aircraft : Flight Deck  
Reporter Organization : Air Carrier  
Function.Flight Crew : Pilot Not Flying  
Function.Flight Crew : Relief Pilot  
ASRS Report Number.Accession Number : 936268  
Human Factors : Situational Awareness  
Human Factors : Confusion  
Human Factors : Fatigue  
Human Factors : Training / Qualification

## **Person : 3**

Reference : 3  
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  
ASRS Report Number.Accession Number : 936251  
Human Factors : Fatigue  
Human Factors : Workload

## **Events**

Anomaly.Deviation - Procedural : Published Material / Policy  
Anomaly.Inflight Event / Encounter : Wake Vortex Encounter  
Detector.Person : Flight Crew  
When Detected : In-flight  
Result.Flight Crew : Took Evasive Action

## **Assessments**

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

## **Narrative: 1**

On approach to Runway 9L in EGLL, we were sequenced behind a B777. On descent we experienced some wing tip turbulence. Our airplane was coupled to the ILS and on assigned speed. Separation was 6.5 NM according to the Tower. The disruption continued and I contemplated a go-around. Since we were VFR (clear and unlimited visibility), I decided to disengage the auto-pilot and hand fly the glideslope 1/2 dot high to remain over the preceding aircraft's turbulence. The ride was much better, so I continued the approach to landing. We extended the gear handle at about 1,400 FT and extended the flaps. We landed within the first 3,000 FT, on speed.

## **Narrative: 2**

We were late in slowing and configuring the aircraft and subsequently closing on the 777 in front of us (less than 4 miles). Wake turbulence occurred and the Captain disconnected the autopilot and hand flew 1/2 dot high to avoid the wake.

Landing flaps 25 was requested before the gear and subsequent warning occurred. As the gear was coming down I heard the 1,000 FT call. Likely late on the 1,000 FT configuration, but in the slot and on speed at 500 FT. The landing was uneventful and in the touchdown zone. As I was the Relief Pilot on this flight and the Captain was the pilot flying. I cannot answer for the Captain as to whether fatigue was a factor in the approach, but it likely was as this was an all nighter flight.

### **Narrative: 3**

Possibly not fully stabilized at 1,000 FT due to a somewhat quicker approach than usual resulting in a slightly delayed final configuration. Fatigue may have been a contributing factor in reaction time.

### **Synopsis**

A B777 flight crew reported encountering wake turbulence from a preceding B777 on arrival at EGLL. The Captain hand flew slightly high on the glideslope to avoid the preceding aircrafts' wake and in the process a slightly delayed landing configuration occurred.

## Time / Day

Date : 201102  
Local Time Of Day : 0001-0600

## Place

Locale Reference.ATC Facility : ZAU.ARTCC  
State Reference : IL  
Altitude.MSL.Single Value : 35000

## Environment

Light : Night  
Ceiling : CLR

## Aircraft

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

## Component

Aircraft Component : Aeroplane Flight Control  
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  
Experience.Flight Crew.Total : 8500  
Experience.Flight Crew.Last 90 Days : 95  
Experience.Flight Crew.Type : 155  
ASRS Report Number.Accession Number : 934998  
Human Factors : Fatigue

## Events

Anomaly.Aircraft Equipment Problem : Critical  
Anomaly.Deviation - Procedural : FAR  
Detector.Automation : Aircraft Other Automation  
Were Passengers Involved In Event : N

When Detected : In-flight  
Result.General : Maintenance Action  
Result.Flight Crew : Overcame Equipment Problem

## **Assessments**

Contributing Factors / Situations : Aircraft  
Primary Problem : Aircraft

## **Narrative: 1**

Briefed by inbound crew [that the] ELAC (Elevator Aileron Computer) 2 failed twice in flight, but did not recur after their second reset. Maintenance troubleshoot and signed off the defect after landing. They experienced no issues on their next leg. On our flight, the ELAC 2 tripped off just prior to top of descent. We applied the ECAM/FM irregular procedure and ELAC 2 reset ok. We reported the event to Maintenance on ACARS. ELAC 2 tripped off again several minutes later and again reset ok. It then tripped off for the third time accompanied with an ELEV SERVO FAULT ECAM message during an intermittent level off at FL250. Applied ECAM/FM procedure, but chose not to reset ELAC 2 a third time based on the accompanying ELEV SERVO FAULT, the ELAC reset history, and the fact that we were running short on time in the final descent. We reported the ELEV SERVO fault via ACARS. Before landing we applied the landing distance correction for landing and notified ATC of the flight control issue, however no emergency was declared. The subsequent flaps 3 ALTN LAW approach and DIRECT LAW landing were uneventful. This was a red eye flight. The Captain and I were both anxious to get on our way to get some sleep. We debriefed, but did not discuss any requirements to report the issue other than the log write-up and ACARS notification. It occurred to me after getting some rest that this may qualify as a flight control malfunction, thus requiring notification to company and the FAA.

## **Synopsis**

An A319 flight crew suffered repeated failures of the ELAC 2 computer that responded only momentarily to ECAM correction procedures before failing again. They landed safely at their destination using ALTN and DIRECT LAW approach and landing procedures.

## Time / Day

Date : 201102  
Local Time Of Day : 0601-1200

## Place

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

## Environment

Ceiling : CLR

## Aircraft

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

## Component

Aircraft Component : Rudder  
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  
Qualification.Flight Crew : Air Transport Pilot (ATP)  
Experience.Flight Crew.Total : 19000  
Experience.Flight Crew.Last 90 Days : 230  
Experience.Flight Crew.Type : 5000  
ASRS Report Number.Accession Number : 934982  
Human Factors : Communication Breakdown  
Human Factors : Time Pressure  
Human Factors : Fatigue  
Communication Breakdown.Party1 : Flight Crew  
Communication Breakdown.Party2 : Other  
Communication Breakdown.Party2 : Maintenance

## Events

Anomaly.Aircraft Equipment Problem : Critical  
Detector.Person : Flight Crew  
Detector.Person : Maintenance  
Were Passengers Involved In Event : N  
When Detected : Routine Inspection  
Result.General : Flight Cancelled / Delayed  
Result.General : Maintenance Action  
Result.Aircraft : Aircraft Damaged

## Assessments

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

## Narrative: 1

When I entered the cockpit after briefing the flight attendants, Maintenance approached me and said that there was a maintenance issue that had to be addressed before departure and that he wasn't sure how long it would take. He then stated that a part in the rudder may be missing and that he had to verify it before we could depart. After sending a note to Dispatch about our issue, they responded that Contract Maintenance had not installed the rudder hinge spacer and that structural damage had been found during an inspection as a result. Our flight was then canceled and the aircraft was taken out of service. The airplane had flown on three or four segments before the discovery was made. We were very thankful and lucky that we didn't take the jet to South America as planned. We were then assigned to deadhead off line to ZZZ, ferry another aircraft back and then fly the red eye return to ZZZ. Although the reassignment was legal, there appeared to be little or no consideration of fatigue issues. We departed ZZZ about the time we were to have arrived in South America on our original flight. It was a difficult flight as both crew members were exhausted upon arrival.

## Synopsis

When their U.S. mainland to South America flight was canceled due to a maintenance issue, a B767-300 flight crew was reassigned to a technically legal but much longer duty day, a three segment (DHD, ferry, revenue flight) itinerary, which proved predictably and excessively fatiguing.

## Time / Day

Date : 201102  
Local Time Of Day : 0001-0600

## Place

Locale Reference.Airport : PDX.Airport  
State Reference : OR  
Relative Position.Distance.Nautical Miles : 20  
Altitude.MSL.Single Value : 4300

## Environment

Ceiling : CLR

## Aircraft

Reference : X  
ATC / Advisory.TRACON : P80  
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 : Descent  
Route In Use : Visual Approach  
Route In Use.STAR : Bonvl 6  
Airspace.Class C : PDX

## Person : 1

Reference : 1  
Location Of Person.Aircraft : X  
Location In Aircraft : Flight Deck  
Reporter Organization : Air Carrier  
Function.Flight Crew : Pilot Flying  
Function.Flight Crew : First Officer  
Experience.Flight Crew.Total : 10500  
Experience.Flight Crew.Last 90 Days : 200  
Experience.Flight Crew.Type : 2000  
ASRS Report Number.Accession Number : 932613  
Human Factors : Situational Awareness  
Human Factors : Fatigue

## Person : 2

Reference : 2  
Location Of Person.Aircraft : X  
Location In Aircraft : Flight Deck  
Reporter Organization : Air Carrier

Function.Flight Crew : Pilot Not Flying  
Function.Flight Crew : Captain  
Qualification.Flight Crew : Air Transport Pilot (ATP)  
Experience.Flight Crew.Total : 16000  
Experience.Flight Crew.Last 90 Days : 250  
Experience.Flight Crew.Type : 4000  
ASRS Report Number.Accession Number : 932620

## Events

Anomaly.Inflight Event / Encounter : CFTT / CFIT  
Detector.Automation : Aircraft Terrain Warning  
Were Passengers Involved In Event : N  
When Detected : In-flight  
Result.Flight Crew : FLC complied w / Automation / Advisory

## Assessments

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

## Narrative: 1

I was pilot flying during the arrival into PDX. Weather was unlimited visibility with broken clouds at about 20,000 FT. We were on the Bonvl6 arrival and had been cleared to descend to 5,500 FT (which is the MDA for that area). We reported the airport in sight somewhere below 10,000 FT but above the previously cleared altitude of 5,500 FT. PDX Approach cleared us for the visual approach to Runway 28R to cross TOLOC FAF above 2,000 FT. I proceeded direct to TOLOC and disconnected the autoflight and took over manual control of the aircraft. I continued descent through 5,500 FT on my way to 2,000 FT. When passing through approximately 4,300 FT the EGPWS aural alert "Caution Terrain" sounded. I immediately leveled off and started scanning visually outside for terrain. Although the visibility was unlimited, the aircraft was still over the high terrain to the east of the airport, which is an unpopulated and unlit area. I couldn't acquire adequate visual contact with the ground, and approximately 10-15 seconds after the initial EGPWS alert sounded we got a "Terrain, Terrain Pull Up" and associated aural alert. I immediately applied the Ground Proximity recovery procedure and started a climb back towards the previously cleared 5,500 FT. The engines spooled up somewhat slowly and I didn't get the throttles into the full TOGA detent before we had climbed back up to about 5,300 FT. The EGPWS alert stopped not long after initiating the climb. The Captain contacted PDX Approach to ask what a good altitude was for the area we were in. PDX Approach stated that 5,500 FT was the MDA, but we were now west of the terrain. After assessing that we were at a safe altitude and fully recovered, I continued the approach to a normal landing at PDX on Runway 28R. I believe it is important to note that we had been cleared for the visual approach to 28R, and not specifically for the "Mill Visual" approach. The Mill visual routes over the Columbia River towards the paper mill at Camas, WA before turning back south to intercept final for 28R/L. I am familiar with the area having grown up [nearby] and have also flown into PDX numerous times during my career. I believe my familiarity of the area led to complacency on my part. I also believe a long duty day combined with being awake for a longer time than I'm used to contribute to the incident. In addition, I believe our clearance for the visual

approach to 28R with a clearance to cross TOLOC at 2,000 FT instead of a clearance for the "Mill Visual" was a contributing factor.

## **Synopsis**

Inbound from the east on a clear day, an A319 flight crew cleared for a visual approach to PDX received a EGPWS "CAUTION TERRAIN" alert followed shortly by a "PULL UP, TERRAIN" warning with which they complied.

## Time / Day

Date : 201102

## Place

Locale Reference.Airport : ORD.Airport

State Reference : IL

Altitude.AGL.Single Value : 0

## Environment

Weather Elements / Visibility : Rain

Light : Night

## Aircraft

Reference : X

ATC / Advisory.Tower : ORD

Aircraft Operator : Air Carrier

Make Model Name : B737-800

Crew Size.Number Of Crew : 2

Operating Under FAR Part : Part 121

Flight Plan : IFR

Mission : Passenger

Flight Phase : Takeoff

## Person : 1

Reference : 1

Location Of Person.Aircraft : X

Location In Aircraft : Flight Deck

Reporter Organization : Air Carrier

Function.Flight Crew : Captain

Qualification.Flight Crew : Air Transport Pilot (ATP)

ASRS Report Number.Accession Number : 931888

Human Factors : Fatigue

## Person : 2

Reference : 2

Location Of Person.Aircraft : X

Location In Aircraft : Flight Deck

Reporter Organization : Air Carrier

Function.Flight Crew : First Officer

ASRS Report Number.Accession Number : 931890

## Events

Anomaly.Deviation - Procedural : Published Material / Policy

Detector.Person : Flight Crew

When Detected : In-flight

Result.General : None Reported / Taken

## Assessments

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

### Narrative: 1

I had planned and briefed a Runway 28 departure with 1/4 inch slush correction. Runway 32L T-10 opened and we were assigned this with our taxi clearance. I quickly sent a 1/4 inch slush correction request to Dispatch via ACARS just before taxiing. Taxi out was unusual as we were behind the seven-truck plow team on Alpha. Only the right half of the taxiway was plowed 2-3 inches of snow on the left half (distraction). Shortly after liftoff I had the epiphany that I screwed up and had requested 32L and not 32LX (T-10) with Dispatch. They would have no way of knowing. Had we lost an engine I can only imagine what the outcome might have been. Not to distract from the seriousness of this situation I do want to expand on the human factor side of this; again, not to make excuses but to explain the pitfalls of a sequence such as ours. I woke this morning at XA:30 am so as to make a XD:05 sign in. We had one simple leg to ORD then a scheduled 10:35 layover followed by this flight scheduled to land at XU:25L which equates to 02:25 body time. On this layover, other than 30 minutes on the treadmill I was a hermit in my room. I slept from roughly XL:00 pm to XF:00 pm ORD time. Our flight was delayed two hours due to inbound equipment. [We were] now departing at XU:00L which is 00:00 body time; so while the sequence "appears" to provide 10 plus hours to reset our body clocks, and despite my best efforts at minimal caffeine, proper diet, exercise and sleep I actually pushed back from the gate in ORD with 3 hours sleep in the previous 20 hours. Landing at XW:30 local time equates to 3 hours sleep in the previous 25 hours. Fatigued? Not apparent at departure, actually felt energized. Clearly I wasn't firing on all cylinders to make a rookie mistake like I did. My point is that we should not build a sequence like this expecting a pilot to recognize his situation and remove him/herself from the trip. Those warning signs may not be apparent at that stage until it is too late. We should proactively protect our crews. At the hotel I called Dispatch to try and get another aircraft but none were available. When Tracking called I voiced my concerns about the time of day and was told "to hang in there...you can do it Captain." I try to be a team player, tried to hang in there (as I mentioned, actually felt good). Clearly the results are not what we would consider sterling. We go out of our way to regulate and monitor safety (i.e., landing flaps by 1,000 FT -not 950 FT- and still 3.3 miles from touchdown) but allow sequences to be built that on paper look good yet have no grasp of human physiology. We want to be aggressively safe yet ask our aging pilot force to perform in unsafe circumstances. And while the mid-sequence fatigue policy can be an excellent tool, clearly the triggers were not apparent until the damage had been done last night. Sorry for being verbose. However this is the kind of scenario the safety team should examine. The outcome could have been terrible.

### Narrative: 2

After takeoff we realized we had requested and applied a slush correction for Runway 32L instead of our assigned 32LX. We had planned to takeoff from Runway 28. Runway conditions turned out to be better than expected and the takeoff was uneventful.

## Synopsis

B737-800 flight crew fails to advise Dispatch of a takeoff from Runway 32L at T10. Numbers provided were for Runway 32L full length, takeoff was normal and pilot fatigue cited as a contributing factor.

## Time / Day

Date : 201102  
Local Time Of Day : 1201-1800

## Place

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

## Environment

Flight Conditions : IMC  
Light : Night

## 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

## 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  
Experience.Flight Crew.Total : 12000  
Experience.Flight Crew.Last 90 Days : 100  
Experience.Flight Crew.Type : 2200  
ASRS Report Number.Accession Number : 931878  
Human Factors : Communication Breakdown  
Human Factors : Distraction  
Human Factors : Time Pressure  
Human Factors : Workload  
Human Factors : Fatigue  
Communication Breakdown.Party1 : Flight Crew  
Communication Breakdown.Party2 : Ground Personnel

## Events

Anomaly.Other  
Detector.Person : Flight Crew  
When Detected : Pre-flight

Result.General : Work Refused  
Result.Flight Crew : Became Reoriented

## Assessments

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

## Narrative: 1

We had a short layover (11:59) scheduled for the second night of our 3 day trip. We checked into the hotel XA:45 (+1 hour Home Base Time) and I got to bed at approximately XB:45. Five hours and fifteen minutes later I was awoken by loud noises and beeping sounds outside of my window. Apparently my room over looked the rear deliver docks for the hotel and trucks were arriving for their weekday morning deliveries. I was unable to go back to sleep so with about 5 hours of rest I started my day. Check in was at XL:00 and our day was scheduled for 7:05 block time, 10:25 duty. Our first segment was uneventful. While planning for our next segment we noticed that the destination weather had deteriorated significantly (SN, FZFG, 1,400 RVR) and we flight planned accordingly. Just prior to push we were advised of an EDCT time for destination and remained on the gate with our passengers on board for 30 minutes. We then pushed, taxied out and shut down on a taxiway near the end of the runway. There was a discrepancy in our wheels up time so we spent some time going back and forth with ATC and Dispatch to clarify things- our destination then went to a ground stop. We remained on the taxiway for 2 hours updating the passengers, talking with Dispatch, the flight attendants and eventually Company Operations as time started to become a factor and extended delay kits were issued. The flight attendants were calling with passenger questions as they were hearing about local airports and destination power outages over their cell phones. After a busy 2 hours sitting on the taxiway we were cleared for takeoff. Approximately 20 minutes after takeoff, while in the climb, in IMC with engine anti-ice on we received an ENG BLEED LEAK ECAM. We ran checklists, talked to Dispatch, talked to Maintenance and were unable to fix the problem. Unable to continue into known icing conditions we coordinated with ATC, declared an emergency, turned around and headed back to the departure airport. The passengers were briefed and the flight attendants were given a cabin advisory. Aside from the 15 minutes of (very) moderate turbulence on the descent the return was fast paced but uneventful. Almost 4 hours after boarding and 3 hours and 8 minutes after push back we were back where we started. It felt like an action packed PC had just successfully ended. The Captain and I debriefed and then headed down to operations. Upon arrival in operations at XT:45 we were advised that all of our passengers had been accommodated on another flight that was just leaving for our planned destination. We were then told by the station that there was another Airbus inbound, arriving at XU:15 that they planned to turn and we would ferry it to our planned destination at XV:00. We called the crew desk and were told that was indeed the plan and that we would also operate back to this airport for the overnight. When the Captain advised that would put us at 9:56 minutes of flight time and 14:00 hours of duty for the day as well as get us back into our over night fifteen hours after check in (if everything went as planned) the response was "it's legal." We did not receive any calls to discuss the emergency on our last flight or to check on our status. We were also never asked if we were OK to go with the revised plan, it was legal!! Feeling the adrenaline rush start to decline I

headed upstairs to the terminal for a cup of coffee and to get myself in the mindset for another 5 hours of flying. I was sitting at an empty gate waiting for our airplane to arrive when I hit the proverbial "brick wall." I attempted to contact the Flight Duty Manager several times over the next 20-30 minutes but was unable to reach him. After doing a self assessment on my fitness to fly I determined that I was approaching my limits. I would not be able to do a round trip, arriving back at the destination after being awake 18 hours, with 10 hours of flight time and 14 hours of duty, safely. I called the Crew Desk and advised them I was fatigued.

## **Synopsis**

An A320 First Officer called in fatigued after being reassigned flying that would extend his awake time to nineteen hours with 9+56 flight hours and fourteen hours on duty.

## Time / Day

Date : 201102  
Local Time Of Day : 1801-2400

## Place

Locale Reference.ATC Facility : ROA.TRACON  
State Reference : VA  
Relative Position.Distance.Nautical Miles : 15  
Altitude.MSL.Single Value : 4000

## Environment

Flight Conditions : IMC  
Light : Night

## Aircraft

Reference : X  
ATC / Advisory.TRACON : ROA  
Aircraft Operator : Air Carrier  
Make Model Name : Boeing Company Undifferentiated or Other Model  
Crew Size.Number Of Crew : 2  
Operating Under FAR Part : Part 121  
Flight Plan : IFR  
Mission : Cargo / Freight  
Flight Phase : Descent  
Route In Use : Vectors  
Airspace.Class D : ROA

## Component

Aircraft Component : GPWS  
Aircraft Reference : X  
Problem : Malfunctioning

## Person : 1

Reference : 1  
Location Of Person.Aircraft : X  
Location In Aircraft : Flight Deck  
Reporter Organization : Air Carrier  
Function.Flight Crew : Captain  
Function.Flight Crew : Pilot Flying  
Qualification.Flight Crew : Air Transport Pilot (ATP)  
Experience.Flight Crew.Last 90 Days : 150  
ASRS Report Number.Accession Number : 931600  
Human Factors : Fatigue  
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 Not Flying  
Experience.Flight Crew.Total : 8000  
Experience.Flight Crew.Last 90 Days : 75  
Experience.Flight Crew.Type : 400  
ASRS Report Number.Accession Number : 931594

## Events

Anomaly.Aircraft Equipment Problem : Less Severe  
Anomaly.Deviation - Altitude : Excursion From Assigned Altitude  
Anomaly.Inflight Event / Encounter : CFTT / CFIT  
Detector.Automation : Aircraft Terrain Warning  
Were Passengers Involved In Event : N  
When Detected : In-flight  
Result.Flight Crew : Took Evasive Action

## Assessments

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

## Narrative: 1

Descending on vector heading to 4,000 as directed by ROA Approach. Just before level off we got a single "terrain" alert. We were in a slow descent in FLCH at 250 KTS. We were IMC at night so I climbed thru 5,000 and had the First Officer report out of assigned altitude and that we had responded to a terrain alert. The Controller said he had not received any alerts and that we were at the correct MVA for that sector. We descended back down to 4,000 FT and continued via vectors for the ILS to Runway 34. Normal approach and landing. My reactions seemed slow and may be attributed to fatigue from the previous 14 days of flying with one 26 hour break. In addition we were late most days this past week getting to the hotel due to winter weather.

## Narrative: 2

The Captain disengaged the autopilot and initiated a climb to 5,000 FT. There was no terrain indicated on the screen near our position and after notifying approach of our actions they said that they received no alarms associated with our flight path and did not know what would have given us the warning.

## Synopsis

On a night time arrival to ROA and air carrier aircraft responded to an EGPWS warning that appeared to have been triggered in error as no obstacles were in the vicinity and ATC advised they had received no alerts.

## Time / Day

Date : 201101  
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  
Ceiling : CLR

## Aircraft

Reference : X  
ATC / Advisory.Ground : 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

## Component

Aircraft Component : APU Fire/Overheat Warning  
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 Flying  
Experience.Flight Crew.Total : 12000  
Experience.Flight Crew.Last 90 Days : 175  
Experience.Flight Crew.Type : 8600  
ASRS Report Number.Accession Number : 930817  
Human Factors : Troubleshooting  
Human Factors : Time Pressure  
Human Factors : Situational Awareness  
Human Factors : Fatigue  
Human Factors : Confusion

## Person : 2

Reference : 2  
Location Of Person.Aircraft : X  
Location In Aircraft : Flight Deck  
Reporter Organization : Air Carrier  
Function.Flight Crew : Captain  
Function.Flight Crew : Pilot Flying  
Qualification.Flight Crew : Air Transport Pilot (ATP)  
Experience.Flight Crew.Total : 21500  
Experience.Flight Crew.Last 90 Days : 230  
Experience.Flight Crew.Type : 6500  
ASRS Report Number.Accession Number : 932041  
Human Factors : Situational Awareness  
Human Factors : Time Pressure  
Human Factors : Troubleshooting

## Events

Anomaly.Aircraft Equipment Problem : Less Severe  
Anomaly.Deviation - Procedural : Published Material / Policy  
Detector.Automation : Aircraft Other Automation  
Detector.Person : Flight Crew  
When Detected : Aircraft In Service At Gate  
Result.General : Declared Emergency  
Result.General : Evacuated  
Result.General : Maintenance Action

## Assessments

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

## Narrative: 1

We had a false APU fire warning after APU shutdown. We had already completed the parking checklist, and I was up out of my seat greeting departing passengers. I heard the warning buzzer in the nose wheel well sound, and turned to see a red fire light illuminated in the APU emergency shutoff switch. The APU was already shut down, and the Captain had selected ground power. I was surprised that there was no repetitive warning bell for fire, but in the press of events I thought it was due to the plane being on battery power (which it was not). The ECAM screens were already off for the night. The Captain activated the emergency shutoff switch, and I advocated discharging the fire bottle, since the light was still illuminated. He called ground and I called station operations to summon the fire trucks. I went to the cockpit door and determined that most of the passengers had deplaned or were forward and on their way out. With the Captain's concurrence, I ran outside to get the baggage handlers out of the rear cargo pit and away from the airplane while we awaited the fire trucks. I saw no evidence of a fire, and initial analysis by the mechanics pointed to a failed warning relay that had triggered a false fire warning. I was initially confused by the indications because the ECAM screens were secured, but if they had been on I'm not sure I'd have done anything differently. Even if I suspected a false warning, I think the prudent thing to do would be to honor it and discharge the bottle. I was also somewhat tired at this later hour in my domicile time, and didn't immediately realize that we were not getting all the correct indications of an APU fire appropriate to our current electrical configuration. I am

familiar with the Airbus-specific issue of false cargo pit fire ECAMS on the ground with cargo doors open, and of course would not have responded to that situation with a fire bottle discharge.

## **Narrative: 2**

False Fire Warning: After being towed in to gate per usual procedure there, we completed parking SOP's including shutting down APU. Less than a minute after the APU appeared to shut down normally and while waiting for the flap to close before shutting off the aircraft batteries, we got an APU fire warning light and squib light plus the outside APU fire horn. The ECAM screens were already shut down (won't do that again). Followed SOP and pressed fire switch and also discharged extinguisher bottle, which had not discharged by itself. The red APU fire light did not extinguish. Called fire department. First Officer went outside to clear ground personnel from the nearby area and to check for evidence of fire. None found. During examination of the Centralized Fault Display System by maintenance, a relay in the APU fire warning system was noted as faulting. Talked to Dispatch and Flight Duty Manager and CFR and police responders and station personnel. At time of fire light, the cabin was empty of all but the flight attendants who were on their way out and maybe a couple of passengers preceding them. Secured airplane.

## **Synopsis**

An A320 had an APU fire warning while parked at the gate with the APU OFF and the aft cargo door open so fire fighting procedures were followed but fire fighters found no fire.

## Time / Day

Date : 201101  
Local Time Of Day : 1201-1800

## Place

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

## Environment

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

## Aircraft

Reference : X  
ATC / Advisory.Ground : ZZZZ  
Aircraft Operator : Air Carrier  
Make Model Name : B747-200  
Crew Size.Number Of Crew : 3  
Operating Under FAR Part : Part 121  
Flight Plan : IFR  
Mission : Cargo / Freight  
Flight Phase : Landing  
Route In Use : Vectors

## 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 : Flight Engineer / Second Officer  
Qualification.Flight Crew : Flight Engineer  
Qualification.Flight Crew : Instrument  
Qualification.Flight Crew : Multiengine  
Qualification.Flight Crew : Flight Instructor  
Qualification.Flight Crew : Commercial  
Experience.Flight Crew.Total : 13000  
Experience.Flight Crew.Last 90 Days : 210  
Experience.Flight Crew.Type : 310  
ASRS Report Number.Accession Number : 929701

Human Factors : Fatigue  
Human Factors : Distraction  
Human Factors : Communication Breakdown  
Human Factors : Training / Qualification  
Communication Breakdown.Party1 : Flight Crew  
Communication Breakdown.Party2 : Flight Crew  
Communication Breakdown.Party2 : ATC

## **Person : 2**

Reference : 2  
Location Of Person.Aircraft : X  
Location In Aircraft : Flight Deck  
Reporter Organization : Air Carrier  
Function.Flight Crew : First Officer  
Function.Flight Crew : Pilot Flying  
Qualification.Flight Crew : Instrument  
Qualification.Flight Crew : Multiengine  
Qualification.Flight Crew : Air Transport Pilot (ATP)  
Experience.Flight Crew.Total : 4800  
Experience.Flight Crew.Last 90 Days : 140  
Experience.Flight Crew.Type : 570  
ASRS Report Number.Accession Number : 929107  
Human Factors : Troubleshooting  
Human Factors : Situational Awareness  
Human Factors : Communication Breakdown  
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.Deviation - Procedural : Published Material / Policy  
Detector.Automation : Aircraft Other Automation  
Detector.Person : Flight Crew  
When Detected : Taxi  
Result.Flight Crew : FLC complied w / Automation / Advisory

## **Assessments**

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

## **Narrative: 1**

[We had a] normal approach and landing, ILS to Runway 03. During landing rollout, a loud bang was heard in the cockpit. EIDS showed a red ball for engine #2. The EGT indication was off scale high, the entire gage was red with the overtemp. At the time of the occurrence, N1 for engine #2 was at 75% while the engine was in reverse. I was requested during the landing rollout to motor the engine by the Captain, which I did using my left hand to hold the switch. I was using my right hand to run the checklist and get the APU (Auxiliary Power Unit) started. The Captain brought the aircraft to a stop on Taxiway Fox, and we performed the After Landing checklist. We were called by the Tower at this turning point and they said

we had a problem with the #2 engine. They asked us if we wanted the Fire Department to respond, and the Captain declined. Then the Captain started to taxi the airplane to the parking spot, which is very close to the exit onto Fox Taxiway. As we taxied onto the parking spot, we experienced an engine fire warning on the #2 engine, and at this point the Captain directed the First Officer and I to run the Engine Fire Checklist, which we did. We discharged the one fire bottle, then as per the checklist, discharged the other one. At this point the Fire Department was at the airplane and put the fire out with water. At this point the First Officer and I also ran the Evacuation checklist, but everyone was off the airplane at this point. The Captain had at this juncture went downstairs to assess the situation. I feel our judgment and performance were poor. We were operating at 20+ hours at this point. A look back we should have declared fatigue before we flew across the ocean. This put me into a situation where we flew through our normal sleep cycle, and at the end of the trip. If there is a catastrophic event, in this case a compressor stall accompanied by excessive EGT that the Fire Department should respond immediately until they clear you for operations. When we were clear of the runway, we should have stopped the operation, shut down the engine and not moved until cleared by the Fire Department. Inaction on the crew's behalf to recognize the severity of the situation, not being proactive about the emergency, led to the engine fire. Crew coordination, communication, and CRM were all affected by the long crew duty day. Safe operations require the entire crew to be on top of the situation.

## **Narrative: 2**

Captain flying ILS. Normal ILS approach and landing made. As pilot not flying, I made standard callouts when aircraft was slowing below 100 KTS. At this time, we heard a "bang" and the Captain immediately recognized it as an engine #2 compressor stall. Flight Engineer was monitoring the engine instruments. Captain immediately told the Flight Engineer to begin motoring engine #2 starter. Aircraft was slowed to taxi speed and vacated runway on Taxiway "F" and brought to a complete stop to assess situation. Ground Control noted smoke coming from engine #2. Captain decided to taxi to our nearby parking spot and told us to complete after landing checklist. As aircraft was taxiing into parking spot with the marshaller, engine #2 fire warning switch illuminated, and the Flight Engineer and I accomplished appropriate checklist. After the illuminated fire warning switch light would not go out, we were already in the blocks, and we called ground to send the fire equipment to the plane. The engine fire/smoke was subsequently extinguished. In hindsight, we would have had to run a separate checklist that would have us shut down the engine immediately after clearing the runway. At the time we assessed the situation, we incorrectly assumed that engine #2 was already shut down due to the malfunction.

## **Synopsis**

A B747 had an engine compressor stall on landing which turned into a fire as the aircraft was taxied to the ramp after a twenty hour duty day. ATC identified the engine problem before the fire warning but the crew elected no assistance.

## **Time / Day**

Date : 201101  
Local Time Of Day : 0001-0600

## **Place**

Locale Reference.ATC Facility : ZZZ.ARTCC  
State Reference : US  
Altitude.MSL.Single Value : 39000

## **Environment**

Flight Conditions : VMC  
Light : Night  
Ceiling : CLR

## **Aircraft**

Reference : X  
ATC / Advisory.Center : ZZZ  
Aircraft Operator : Air Carrier  
Make Model Name : B767-300 and 300 ER  
Crew Size.Number Of Crew : 2  
Operating Under FAR Part : Part 121  
Flight Plan : IFR  
Mission : Passenger  
Flight Phase : Landing  
Flight Phase : Cruise  
Airspace.Class A : ZZZ

## **Component**

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

## **Person : 1**

Reference : 1  
Location Of Person.Aircraft : X  
Location In Aircraft : Flight Deck  
Reporter Organization : Air Carrier  
Function.Flight Crew : First Officer  
Function.Flight Crew : Pilot Flying  
ASRS Report Number.Accession Number : 929426  
Human Factors : Training / Qualification  
Human Factors : Fatigue  
Human Factors : Situational Awareness  
Human Factors : Workload

## **Person : 2**

Reference : 2  
Location Of Person.Aircraft : X  
Location In Aircraft : Flight Deck  
Reporter Organization : Air Carrier  
Function.Flight Crew : Captain  
Function.Flight Crew : Pilot Not Flying  
Qualification.Flight Crew : Air Transport Pilot (ATP)  
Experience.Flight Crew.Total : 17000  
Experience.Flight Crew.Last 90 Days : 200  
Experience.Flight Crew.Type : 2000  
ASRS Report Number.Accession Number : 929428  
Human Factors : Workload  
Human Factors : Training / Qualification  
Human Factors : Situational Awareness  
Human Factors : Distraction  
Human Factors : Fatigue

## Events

Anomaly.Aircraft Equipment Problem : Less Severe  
Anomaly.Deviation - Procedural : Maintenance  
Detector.Person : Flight Crew  
When Detected : In-flight  
Result.Flight Crew : Overcame Equipment Problem

## Assessments

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

## Narrative: 1

At cruise we got an EICAS message "LE SLAT ASYM" with the indicator light. Also the flap indicator showed flaps half way between up and 1. There was no pitching or rolling moment so we were 100% sure it was just an indication problem so we decided to press on to our destination where we knew we would have plenty of runway in the event of a worse case flaps up scenario. The main factor was fatigue after a three hour delay and a difficult all-nighter to start with causing us to use a lot more effort than we normally would have.

## Narrative: 2

We had a LE SLAT ASYM EICAS message come back on in cruise. The issue began at the gate before departure. After switching from ground power to APU power we noticed the EICAS message and corresponding leading edge light. We had the mechanics come to the aircraft. It was clear that the slats were in their full up position and that the problem was with a sensor. We watched as the mechanics ran the slats and flaps out and back in with the alternate selector trying to clear the message. The message would not clear. They ran a bite check on the FSEU and decided to change out a sensor. After 3 hours they had changed out the bad sensor. It was amazing that they had the part. They ran the flaps/slats out and back in. The light and EICAS message cleared. They signed us off and we departed. We encountered some light turbulence while climbing to FL390 and observed the light was on again. The aircraft did not have any unusual flight characteristics. So we assumed that the problem was again with the sensor. We studied our manuals

and checklists and decided that the best course of action was to continue to our destination where we would have the longest runway option and be lighter by burning off more fuel. After reading the flight controls section of the manual and the checklist for the EICAS message we were unsure as to how much flaps we were going to be able to extend. The section said that the flaps would not extend until the slats were at position 1, and we knew that the slats were not going to position 1 because the checklist would not let us extend them. It was the First Officer's leg so while he flew and handled the radios I sent a call me message to Dispatch for a VHF link. We tried that, but they were not there. So we called them on SATCOM and had them link us to Maintenance. After discussing the situation with Maintenance we decided that the flaps would be able to extend to flaps 20 and planned a flaps 20 landing. It was the First Officer's leg, and since he had more experience in the aircraft we decided that he should fly the approach and landing. On down wind we slowed to 210 and extended the flaps to position 1 by the alternate method. We then slowed to 200 and extended the flaps to position 5. Then slowed to 190 and continued extending to position 20. This was all accomplished on downwind. We landed normally and taxied to the gate. The only thing we did not do was alert the flight attendants. It had been a long night and I did not think that they needed any more apprehension added to their day. On the other hand if we were going to make a flaps up landing we would have alerted the flight attendants of the situation. We felt that our training in crew and resource management had been a definite aid to handling the situation.

## **Synopsis**

A B767-300 had a leading edge slat asymmetry fault during preflight which was repaired but reoccurred again at cruise when the flap gauge falsely indicated the flaps extended just beyond up. The flight continued to its destination because the flight controls felt normal.

## Time / Day

Date : 201101  
Local Time Of Day : 0001-0600

## Place

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

## Environment

Flight Conditions : VMC  
Weather Elements / Visibility : Icing  
Work Environment Factor : Temperature - Extreme  
Ceiling : CLR

## Aircraft

Reference : X  
ATC / Advisory.Ground : ZZZ  
ATC / Advisory.Ramp : ZZZ  
ATC / Advisory.Tower : 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 : Parked  
Flight Phase : Taxi

## Person

Reference : 1  
Location Of Person.Aircraft : X  
Location In Aircraft : Flight Deck  
Reporter Organization : Air Carrier  
Function.Flight Crew : Pilot Flying  
Function.Flight Crew : Captain  
Qualification.Flight Crew : Air Transport Pilot (ATP)  
Experience.Flight Crew.Last 90 Days : 30  
ASRS Report Number.Accession Number : 929021  
Human Factors : Communication Breakdown  
Human Factors : Confusion  
Human Factors : Fatigue  
Human Factors : Situational Awareness  
Human Factors : Time Pressure  
Human Factors : Workload  
Human Factors : Distraction

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

## Events

Anomaly.Deviation - Procedural : Maintenance  
Anomaly.Deviation - Procedural : Published Material / Policy  
Anomaly.Ground Event / Encounter : Other / Unknown  
Detector.Person : Flight Crew  
When Detected.Other  
Result.General : Maintenance Action  
Result.Flight Crew : Returned To Gate  
Result.Flight Crew : Rejected Takeoff

## Assessments

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

## Narrative: 1

It was bitter cold. The flight was an extra section which had been added the night before to accommodate passengers delayed by a diverted flight and was flown by a reserve crew who had never met before. The Captain drove in the night before, rather than risk starting a car in the middle of the night in such cold, but got little sleep in the chilly sleep room. The First Officer was on reserve and had ferried the airplane in the previous day, after spending most of that day working the mechanical. She was thus able to explain the maintenance history to the Captain. A major hydraulic leak had been detected at the previous airport and required a pump replacement, with all associated compounding problems of getting parts, tools to install parts, and personnel to the airplane. They ended up ferrying the aircraft in late the night before; home base Maintenance had worked on it during the night and this was the first passenger flight. The maintenance history reflected that hydraulic fluid had been noted leaking earlier in the month but that was dismissed by maintenance as insignificant. The problem on the 20th required replacing the engine driven pump. Under these circumstances, the Captain elected to do the preflight herself. There was plenty of de-icing fluid, salt, and ice on the ramp, stairs, ground equipment and tires, but no sign of any hydraulic leaks or other problems. Whoever cleaned up the leak and changed the pump did an exceptionally good job of cleaning remaining fluid in the area. The cockpit had an unusually large number of items out of place: odd circuit breakers pulled, odd switch positions, missing accessories. Coupled with the extremely hazardous working conditions on the ramp, the preflight took a little longer than usual and the crew was a minute late in contacting the tug crew. The first omen of impending difficulty came when the pushback crew informed the flight deck they had called Maintenance to inspect the external door handle at door 1 left. Apparently it was visibly protruding. Maintenance soon arrived with a ladder and determined that it was frozen. The flight crew immediately notified the flight attendants, and the First Officer went back to personally supervise that the door was disarmed to prevent potential mishap while the mechanics played with the handle outside. It took approximate five minutes to resolve. Once again the flight crew called ready to

push and obtained pushback clearance. Next, the pushback crew informed the Captain that their headset cord did not work during push? It was too short to stay attached to the airplanes so the pushback crew would disconnect the headset, push the airplane, and if the pilots wanted anything they could flash the light. This non-standard procedure would have been a clear violation of SOP and ICAO procedure. There would have been no wing walker or visual ability to communicate immediately between pilot and pushback crew. The Captain opted against writing a new chapter in Creative Pushback Communications and suggested instead that they find a headset cord that worked. Soon some ramp men appeared, carrying a cord which functioned. This was a good thing, because the pushback instructions from Ramp Tower involved maneuvering in reference to a commuter flight, and it would have been very challenging to convey that message with light signals. After pushback and engine start the crew taxied to the runway and was cleared for takeoff, entering the runway from Taxiway D. All taxiways, runways, and ramp areas were clear and covered with sheets of ice. After starting the takeoff roll, while still at a slow speed, an amber L CEN DOOR light came on, indicating that door 2L was not closed and latched. The Captain called the abort and came to a slow rolling stop using (1) thrust reduction, (the airplane hadn't really started going yet), (2) moderate manual brake application. Thrust reversers were un-stowed but before they could be applied the airplane was slowed beyond recommended usage speed. Airspeed was under 80 KTS. With thousands of feet of runway ahead, the greatest risk seemed to be slipping on the icy runway. The First Officer performed excellently: she promptly informed the Tower that the flight was aborting on the runway and told the people to remain seated. The Tower asked if equipment was needed and she quickly advised them that it was not. The crew coordinated with Tower to cross an intersecting runway, and park in the pad. The EICAS message extinguished while turning. There were no abnormal indications in the cockpit and the brake application had only been moderate. Per the Limitations Manual and SOP the crew did not set the parking brake, shut down both engines, and checked for waiting time. At the actual gross weight and airspeed, no waiting time was required. Clear of the active runway, it was then possible to direct attention to the cabin, maintenance, company and procedures. All cabin indications were normal. After coordinating with the flight attendants, and making announcements to reassure the passengers, the First Officer monitored Ground and the Captain spoke to Dispatch, who got Maintenance in on the call. After determining that the light was out and all internal indications normal, Maintenance agreed that only a visual inspection by Maintenance from the outside was required. The Captain's concern was that because door 1L had not been closed and latched properly; 2L had now indicated it was not closed and latched properly; the unusually high number of items out of place in the cockpit, associated with the maintenance work done the night before, that it would be prudent to have Maintenance visually check door 2L and other external doors/latches for security. Maintenance advised they would write it up and send Local Maintenance to check the aircraft; Dispatch verified the location in the parking pad. Soon the ACARS printed the maintenance generated discrepancy report. Within approximately 5-10 minutes, a car appeared with flashing amber lights, and drove around the airplane several times. They stayed with the airplane, parked nearby, and made hand signals, but there was no way to establish communication or see who was inside. The crew contacted Dispatch and asked what was happening. Dispatch advised that Maintenance had sent someone out to look at the airplane. The crew explained that someone was there, but wondered if the inspection was complete or not. Dispatch advised that they had no idea; they were waiting for the flight crew to tell them. The Captain requested an update, and with some surprise, Dispatch agreed to call the flight crew "when they

heard something." The Captain again explained there was a car with lights just sitting there, the crew needed to know whether the inspection was complete, and strongly suggested some proactive action with Maintenance. The Dispatcher was surprised that the Captain would "stay on the line" until some information was received. Maintenance advised that they knew nothing, and could do nothing, having already turned the matter over to Local Maintenance. They told the crew to contact Local Maintenance. SOP calls for the crew, per the Flight Manual, to contact Maintenance for all maintenance issues once pushed back from the gate. The flight crew contacted Local Maintenance via radio. The Local Maintenance person answering the frequency told the Captain they wouldn't send a mechanic to the pad, she would have to taxi back to the ramp for an inspection. Maintenance told the flight crew to contact Ramp for a gate and then (and only then) call Maintenance, after they had a gate assigned. The Captain explained the abort, and that they didn't need a gate, in fact they had both engines shut down and just needed a visual exterior inspection to determine that everything was indeed closed and latched and a visual inspection of tires and brakes as well. The Mechanic became quite irate and launched onto a diatribe about how he wasn't going to send one of his mechanics out in "just a flatbed truck" all the way in the cold to the pad, and furthermore they would need a city escort, that would take "at least an hour" to get, and that "it would be a lot easier for him" if the airplane would just taxi back to the ramp and get a gate. The Captain explained they already had a city escort vehicle, and that it would require again starting both engines (cycle times) as well as the time to coordinate a taxi back to the gate, and back to the runway for departure, when all they needed was a quick visual inspection, and sign off. The Mechanic, who was sarcastic and belligerent by this time, firmly announced that he was not going to risk one of his men, and that "I have to think about my men's safety, and I am not sending him out there" and clearly gave the Captain a choice "so if you want an inspection, you can bring the airplane here to the gate." When the Captain asked the reason for this procedure, the Mechanic explained "it's easier for me if your bring it here" and would not budge, firmly announcing that it was not "safe" to send a mechanic to the pad, and assuring the Captain in no uncertain terms that if she did not comply it would be "at least an hour" before he could send anyone. By this time, thirty minutes had passed. Nonetheless, the Maintenance Controller du jour was determined not to send anyone. It took less than five minutes to restart the engines, get the people belted back down and the cabin ready, coordinate clearance from ground and taxi back to the ramp via Mike, Foxtrot, Alpha taxiways. The ramp wanted the airplane parked in the ramp, on the west side of the concourse. They knew that no gate access was required. It took a little coordination with ATC Ground, who saw the gates were occupied, to explain that holding was not required, etc. They promptly got the airplane to "abeam the requested gates." The Captain stayed with Ground while First Officer spoke to Ramp until the airplane was stopped. More lack of company coordination ensued: Ramp instructed the crew to taxi onto the ramp, perpendicular to the airplanes at the gates. The ramp was ice covered at the time. There is also no type of marking in this area to use as a guideline. Ramp Control didn't understand why the crew couldn't just position the airplane where they wanted it. Eventually, however, a guideman and wing walker appeared and guided the airplane into position, (very close to the parked aircraft rudders) then signaled to shut down both engines. An Operations person plugged into the nose jack and explained the situation. He seemed to be right on top of things and knew what he was doing. He explained that Maintenance was going to come up with a lift and open and shut door 2L, do a wheel and brake inspection, send a maintenance release and then get the flight on its way. He was very attuned to what the pilots needed to know and wanted to do

whatever he could to help. When the Captain explained all that could have been done 30 minutes ago at the pad he explained "oh they never do that." The entire procedure, door check and wheel and brake check took less than 5 minutes. The crew restarted engines and received signals from the ramp crew to taxi out. Apparently the traffic at the gates was ready to leave. They explained on the company frequency to the Ramp Tower that they could not taxi (for takeoff) without a maintenance release. After another few minutes the release arrived and the crew departed, taking off approximately 8 minutes later. The entire delay was approximately one hour and 15 minutes. Of this delay, approximately one hour of it could have been avoided, along with an additional taxi and two engine restarts, and the delay of the two outbound widebody flights, if Maintenance had been willing to perform the routine procedure that Maintenance and Dispatch believed they would do. Thirty minutes could have been avoided by promptly communicating the decision not to go. Maybe a Mechanic was able to stay in where it was warm for a little longer, but two or three ramp personnel had to come out and stand out on the cold ramp for a longer period of time to guide the airplane in and out of the improvised taxi area. Coincidentally, the airport escort vehicle which drove out to the pad, circled and stayed with the airplane the whole time taxi back to the ramp, and even back to the runway for departure just in case the airplane needed anything. There was no one hour wait for City escort; they were ready and available (and driving a nice new SUV, which could easily carry extra personnel if needed). The crew kept the passengers informed, and most were understanding of the minor malfunctions due to extreme operating temperatures. The flight attendants did an outstanding job of handling the low speed abort. The Purser in particular was efficient, calm and clear, and coordinated with the flight crew in a very professional manner. She must have done the same thing with the passengers, because after arrival a deadheading Flight Attendant told the Captain that in 38 years of flying she had never had a "remain seated" and the flight attendants handled it exactly per emergency training. While turning the delayed airplane for continuation to the next destination there was only time for a very limited crew debrief. As pilots it is easy to dismiss only a door light as routine and difficult to understand what a deceleration, however gentle and rolling, accompanied by the words "remain seated" can mean to flight attendants.

## **Synopsis**

A B757 Captain rejected a takeoff for a door light and because Maintenance would not drive out to the parking pad to inspect the door the aircraft was taxied a great distance back to the terminal for a short visual inspection.

## **Time / Day**

Date : 201101  
Local Time Of Day : 1801-2400

## **Place**

Locale Reference.Airport : ZZZ.Airport  
State Reference : US  
Altitude.MSL.Single Value : 3000

## **Environment**

Flight Conditions : IMC  
Light : Night

## **Aircraft**

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

## **Component : 1**

Aircraft Component : Aerofoil Ice System  
Aircraft Reference : X  
Problem : Malfunctioning

## **Component : 2**

Aircraft Component : Indicating and Warning - Landing Gear  
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 Flying  
Function.Flight Crew : Captain  
Qualification.Flight Crew : Air Transport Pilot (ATP)  
Experience.Flight Crew.Total : 18000  
Experience.Flight Crew.Last 90 Days : 190  
Experience.Flight Crew.Type : 3000

ASRS Report Number.Accession Number : 927797  
Human Factors : Fatigue  
Human Factors : Workload  
Human Factors : Troubleshooting  
Human Factors : Situational Awareness

## **Person : 2**

Reference : 2  
Location Of Person.Aircraft : X  
Location In Aircraft : Flight Deck  
Reporter Organization : Air Carrier  
Function.Flight Crew : Pilot Not Flying  
Function.Flight Crew : First Officer  
Experience.Flight Crew.Total : 14000  
Experience.Flight Crew.Last 90 Days : 178  
Experience.Flight Crew.Type : 7000  
ASRS Report Number.Accession Number : 927519  
Human Factors : Workload  
Human Factors : Troubleshooting  
Human Factors : Time Pressure  
Human Factors : Situational Awareness  
Human Factors : Fatigue

## **Events**

Anomaly.Aircraft Equipment Problem : Critical  
Anomaly.Inflight Event / Encounter : Weather / Turbulence  
Detector.Automation : Aircraft Other Automation  
Detector.Person : Flight Crew  
When Detected : In-flight  
Result.General : Declared Emergency  
Result.Flight Crew : Executed Go Around / Missed Approach  
Result.Flight Crew : Landed in Emergency Condition  
Result.Flight Crew : FLC complied w / Automation / Advisory

## **Assessments**

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

## **Narrative: 1**

This flight suffered three separate system faults as indicated on the ECAM beginning shortly after takeoff. Upon turning off the wing anti-ice system the right wing anti-ice valve failed to close resulting in an ECAM message. No action was required and we determined that wing anti-ice was available and would need to be turned on for the approach, where icing conditions were reported, in order to prevent asymmetric deicing of the wings. This fault was a recurring write-up on this aircraft. The fault was reported to maintenance via ACARS and dispatch was contacted to clarify the "thrust limit penalty" indicated on the ECAM. Shortly after resolving the above matter the ECAM indicated a BSCU 1 fault. Using the System Fault Reset section of the flight manual this fault was cleared and no further action was required. At gear extension on the approach to Runway X the BSCU 1 fault

reoccurred along with an LGCIU 2 fault. A go-around was executed due to the loss of the #2 thrust reverser associated with the LGCIU 2 fault. Runway X was reported to have poor braking and to be contaminated with several inches of dry snow and we did not feel it appropriate to attempt a landing with the reverser inop. We also needed time to trouble shoot the ECAM faults and to assess our options. The BSCU 1 fault and LGCIU 2 fault could not be resolved using either the System Fault Reset or Irregular procedure sections of the FM and were reported to maintenance via ACARS. Out of concern for possible deteriorating runway conditions, understanding the implications of any further failures and recognizing the onset of fatigue after an extraordinary work load while on duty more than 12 hours I declared an emergency with ATC. Dispatch was informed of this via ACARS message. The passengers and flight attendants were advised of our situation and the flight attendants were given a Cabin Advisory. We determined that a safe landing was possible on a runway of appropriate length with good braking action. Approach advised that Runway YR was open and met our criteria and we set up and briefed for the ILS to Y. Shortly after being vectored onto the localizer by ATC the localizer signal went off the air and we were forced to abandon this second approach. The localizer signal was restored a short time later and we were vectored back for another approach attempt. The approach was normal and we landed using medium auto-brakes and idle reverse on the left engine.

## **Synopsis**

An A320 had a wing anti-ice valve fail open after takeoff then the BSCU and LGCIU ECAM alerted during approach. The BSCU reset but the LGCIU remained on and after two go arounds the fatigued crew declared an emergency and landed safely.

## Time / Day

Date : 201101  
Local Time Of Day : 1801-2400

## Place

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

## Environment

Weather Elements / Visibility : Snow  
Light : Night

## Aircraft

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

## Component : 1

Aircraft Component : Flap Control (Trailing & Leading Edge)  
Aircraft Reference : X  
Problem : Malfunctioning

## Component : 2

Aircraft Component : Rudder Control 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 : 927212  
Human Factors : Fatigue  
Human Factors : Time Pressure  
Human Factors : Troubleshooting  
Human Factors : Communication Breakdown

Communication Breakdown.Party1 : Flight Attendant  
Communication Breakdown.Party2 : Ground Personnel  
Communication Breakdown.Party2 : Dispatch

## Events

Anomaly.Aircraft Equipment Problem : Critical  
Anomaly.Deviation - Procedural : Published Material / Policy  
Anomaly.Deviation - Procedural : FAR  
Detector.Automation : Aircraft Other Automation  
Detector.Person : Flight Crew  
Were Passengers Involved In Event : N  
When Detected : Aircraft In Service At Gate  
When Detected : In-flight  
Result.Flight Crew : Overcame Equipment Problem

## Assessments

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

## Narrative: 1

I contacted Dispatch regarding our duty limitations and they calculated a wheels up time, which we pen and inked on the release. We encountered maintenance issues with the aircraft prior to push. Maintenance was contacted and was able to clear the issue in time to depart. We took off with 6 minutes to spare from our pen and ink calculation. The flight proceeded according to plan until we were descending into the airport when we received an EICAS message SPS ADVANCED. We ran the checklist and contacted Dispatch via ACARS for the landing distance calculation. They provided this in time and it was within a normal landing distance factor so we considered this to be a normal landing. It was also observed that the flap position indication and box on the EICAS were amber with dashes replacing the digital position indication. We surmised this to be the root cause of the SPS Advanced EICAS message. ATC offered an extended downwind which we accepted. We then configured the aircraft early, and I sent the First Officer back to visually confirm the flap indication from the cabin. He confirmed that they were properly extended and we advised ATC that we were ready for the approach. The approach and landing were normal, except that the runway was contaminated and as I utilized the rudder to keep the aircraft on the runway, we got a Rudder SYS 1-2 inoperative EICAS message. Fortunately, the nose wheel steering became effective enough to provide positive directional control at about the same time as the message appeared. Upon clearing the runway we were instructed to taxi to a convenient parking spot for ATC as our gate was currently occupied. Upon finally reaching the gate and deplaning, I had numerous maintenance discrepancies to record and communicate to Maintenance Control. This delayed our departure from the airport to the extent that we did not get to the hotel until early in the morning. I spoke with Crew Scheduling who wanted to make sure we got compensatory rest that night, but wanted it based upon when the brake was set plus 15 minutes. I indicated that this was an insufficient amount of rest given the day that we had had and stated that I wanted it from our arrival at the hotel. Since it appears somehow contrary to the company's Crew Scheduling policy to provide any more than the minimum rest prescribed by FAR, Crew Scheduling further extended our duty day as needed to

show only 10 hours rest until our required show time the next day. It should be noted that even this "compensatory rest" provided me with less than 8 hours of actual sleep after such a long and stressful day. It would be far better to be dealing with such issues after a shorter duty day, but that can only happen with FAA regulatory changes.

## **Synopsis**

An E-145 flight crew encountered flight control problems and battled fatigue at the end of a 16 hour duty day. Crew Scheduling agreed only to an inadequate duty break before their report for duty the following AM.

## Time / Day

Date : 201101  
Local Time Of Day : 0001-0600

## Place

Altitude.AGL.Single Value : 0

## Aircraft

Reference : X  
Aircraft Operator : Air Carrier  
Make Model Name : A319  
Crew Size.Number Of Crew : 2  
Operating Under FAR Part : Part 121  
Flight Plan : IFR  
Mission : Passenger

## 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)  
Experience.Flight Crew.Total : 12900  
Experience.Flight Crew.Last 90 Days : 187  
Experience.Flight Crew.Type : 4288  
ASRS Report Number.Accession Number : 926446  
Human Factors : Fatigue

## Events

Anomaly.No Specific Anomaly Occurred : All Types  
Detector.Person : Flight Crew  
When Detected.Other  
Result.General : None Reported / Taken

## Assessments

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

## Narrative: 1

This was a very fatiguing trip. With two near minimum layovers, early morning (body time) get ups and a very long duty day, we were both dragging on several occasions. For me, the worst day was on day four; at least it was only one leg. There is something very wrong when duty day length far exceed rest periods. The

sleep deficit was hard to make up; when I got home I took a 1.5 hour nap and then slept almost 10 hours that night. Trips with multiple short layovers/long duty days should not be planned.

## **Synopsis**

A319 Captain describes a fatiguing four day trip during which the time on duty far exceeds the rest periods.

## Time / Day

Date : 201101  
Local Time Of Day : 1801-2400

## Place

Locale Reference.Airport : ROA.Airport  
State Reference : VA  
Altitude.MSL.Single Value : 3000

## Environment

Flight Conditions : VMC  
Weather Elements / Visibility.Visibility : 9  
Light : Night  
Ceiling.Single Value : 3600

## Aircraft

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

## 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 : Commercial  
ASRS Report Number.Accession Number : 926130  
Human Factors : Time Pressure  
Human Factors : Training / Qualification  
Human Factors : Fatigue  
Human Factors : Situational Awareness

## Events

Anomaly.Deviation - Procedural : Published Material / Policy  
Anomaly.Inflight Event / Encounter : CFTT / CFIT  
Detector.Automation : Aircraft Terrain Warning  
Were Passengers Involved In Event : N

When Detected : In-flight  
Result.Flight Crew : Became Reoriented

## Assessments

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

## Narrative: 1

We were expecting the LDA approach to Runway 6. The Captain briefed the approach normally, including the single engine missed approach. While approaching the airport on about a 240 degree heading, Approach reported that an airplane in front of us got the airport in sight through about 7,500 FT and was making a visual approach to Runway 24. They asked if we would like to do the same. I am aware that we are not permitted to do night visual approaches into ROA unless on a published portion of an approach, however, neither of us remembered it at the time. We did what crews do all the time and accepted a straight in visual approach instead of doing a long procedure to get into the airport. I briefed the changes to the approach while the Captain continued to fly the airplane. Winds were [from] 120 at 5 KTS and the performance numbers showed we had plenty of runway. The airport and proceeding traffic came into sight as we passed through 7,000 FT. We were cleared for the visual approach and began following the 3 degree snowflake. At approximately 3,000 FT we received a terrain caution followed shortly by a warning "Terrain, pull up". We added power and begin a climb until we were clear of the conflict. After we were clear of the conflict, we were both certain we were still in a position to make a normal landing. The rest of the flight was uneventful. It should be noted that both pilots were in terrain mode on the MFD and did not notice any abnormal indications until the EGPWS warning. We also never received any low altitude alert from ATC or any comment about our altitude. This event was caused by a number of things lining up at the same time. I think the biggest factor was the last minute runway change. I am confident that if we would have flown the LDA 6 into the airport as previously briefed, this flight would have been uneventful. As does any last minute runway change, it causes the crew to throw most of everything that was previously briefed out the window and scramble to throw together a new plan. [Attributing] factors were certainly complacency. While I wouldn't use the word fatigued, it was leg 5 out of 6 on an almost 12 hour day. The only break we were able to take was a quick dash into the terminal to grab lunch. This was only able to happen because of an early arrival earlier in the day. No matter how well rested you were to begin [with], no one is going to be 100% fresh at the tail end of that day.

## Synopsis

A commuter jet crew accepted a night visual approach to Runway 24 at ROA in contravention to company policy. Passing 3,000 FT MSL they received and responded to an EGPWS terrain warning.

## Time / Day

Date : 201012  
Local Time Of Day : 1801-2400

## Place

Locale Reference.ATC Facility : ZZZ.ARTCC  
State Reference : US  
Altitude.MSL.Single Value : 25000

## Environment

Flight Conditions : VMC  
Weather Elements / Visibility : Turbulence  
Light : Night

## 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 : Descent  
Route In Use : Direct  
Airspace.Class A : ZZZ

## Component

Aircraft Component : FMS/FMC  
Aircraft Reference : X  
Problem : Design

## 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 : Flight Engineer  
Qualification.Flight Crew : Air Transport Pilot (ATP)  
Qualification.Flight Crew : Multiengine  
Experience.Flight Crew.Total : 14000  
Experience.Flight Crew.Last 90 Days : 200  
Experience.Flight Crew.Type : 350  
ASRS Report Number.Accession Number : 925886

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

## Events

Anomaly.Deviation - Altitude : Crossing Restriction Not Met  
Anomaly.Deviation - Procedural : Clearance  
Anomaly.Inflight Event / Encounter : Weather / Turbulence  
Detector.Person : Flight Crew  
When Detected : In-flight  
Result.General : None Reported / Taken

## Assessments

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

## Narrative: 1

We were on a direct routing. We were told to cross our next fix at FL240. I started the descent in "managed descent" and the FMS showed that we were right on the path to make the restriction. As we descended through about FL280 we entered a cloud layer and started to get light and then moderated turbulence. I immediately slowed the aircraft to turbulent penetration airspeed (275 KIAS) while continuing the descent. I then realized, too late, that we were not going to make the restriction. We crossed at about FL250 (1,000 FT high) and were handed off to the next controller. There was no mention of our being too high or of a conflict of any kind. As far as CRM goes the First Officer and I had flown together before and work well together. We were at the end of a 13 hour duty day. We are both fairly new on the aircraft. He went through training in March 2010 and I went through in May 2010. Speaking for myself; I have 20 years on Boeing/McDonnell Douglas aircraft, and those FMS displays have a continuously updated "green arc" that shows exactly where your aircraft will level at the selected altitude. The Airbus display is different. It has a small blue arrow that shows the level off point, but is not updated as quickly. I think that was a contributing factor in my delay in realizing that I was too high, after having slowed down for the turbulence.

## Synopsis

An A319 Captain reported that he missed an assigned descent crossing restriction after slowing his airspeed for turbulence. Descent path deviation detection was difficult because of fatigue, the PFD Level Off point is updated slowly and its symbology different from his previous aircraft.

## Time / Day

Date : 201012  
Local Time Of Day : 0601-1200

## Place

Locale Reference.Airport : LAX.Airport  
State Reference : CA

## Environment

Light : Night

## Aircraft

Reference : X  
ATC / Advisory.TRACON : SCT  
Aircraft Operator : Air Carrier  
Make Model Name : EMB ERJ 140 ER&LR  
Crew Size.Number Of Crew : 2  
Operating Under FAR Part : Part 121  
Flight Plan : IFR  
Mission : Passenger  
Flight Phase : Takeoff  
Route In Use.SID : CASTA2  
Airspace.Class B : LAX

## Component

Aircraft Component : FMS/FMC  
Aircraft Reference : X  
Problem : Improperly Operated

## 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 : Commercial  
ASRS Report Number.Accession Number : 925752  
Human Factors : Fatigue  
Human Factors : Situational Awareness  
Human Factors : Time Pressure  
Human Factors : Communication Breakdown  
Communication Breakdown.Party1 : Flight Crew  
Communication Breakdown.Party2 : Flight Crew

## Events

Anomaly.Deviation - Track / Heading : All Types  
Anomaly.Deviation - Procedural : Published Material / Policy  
Anomaly.Deviation - Procedural : Clearance  
Detector.Person : Air Traffic Control  
When Detected : In-flight  
Result.Flight Crew : Returned To Clearance  
Result.Air Traffic Control : Issued Advisory / Alert

## **Assessments**

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

## **Narrative: 1**

We had the normal routing from LAX in our FMS. We briefed it, cross checked it using the commercial charts, and verified all the waypoints. After takeoff when we started to make the normal turn for the departure we were queried by ATC as to why we were turning. We explained we were on the CASTA2 departure and they said we should have been on the VTU5 and the CASTA2 was no longer available late in the evening. We immediately turned to the correct heading, the rest of the flight was uneventful and no other aircraft were inconvenienced. The previous First Officer flying the plane, as a courtesy, entered the normal routing to our destination and programmed the FMS prior to leaving the cockpit. The Captain and I reviewed it, it looked good, and so we accepted it without crosschecking the PDC to see that ATC had changed us from our normal CASTA2 to the VTU5 departure. It was late so fatigue was probably a factor as well as complacency. When the routing is always the same and then one time it's different, sometimes it is hard to catch. Lesson learned- Always double check the PDC. Don't become complacent.

## **Synopsis**

An EMB140 FMC was setup as a courtesy by the previous First Officer but an incorrect LAX SID was entered for the late evening departure time and the oncoming crew did not pick it up until advised by ATC.

## Time / Day

Date : 201012

## Place

Altitude.AGL.Single Value : 0

## Aircraft

Reference : X  
Aircraft Operator : Air Carrier  
Make Model Name : Commercial Fixed Wing  
Crew Size.Number Of Crew : 2  
Operating Under FAR Part : Part 121  
Flight Plan : IFR  
Mission : Passenger  
Flight Phase : 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)  
Experience.Flight Crew.Total : 22000  
Experience.Flight Crew.Last 90 Days : 150  
Experience.Flight Crew.Type : 2300  
ASRS Report Number.Accession Number : 925678  
Human Factors : Fatigue

## Events

Anomaly.No Specific Anomaly Occurred : All Types  
Detector.Person : Flight Crew  
When Detected : In-flight  
Result.General : None Reported / Taken

## Assessments

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

## Narrative: 1

We took a long departure delay to fix a mechanical problem with prior history! After much delay the flight attendants went illegal; either 17 or 17.5 hours. Next the FAMS went illegal. We were still legal until 19 hours and 30 minutes. By the time we finally got new flight attendants it was over 19 hours; however we were still legal. If I knew how fatigued we would be at the other end of the 19 hours I would

have refused to fly. My crew and I (although making no mistakes that we were aware of) were not at peak performance at the other end of the duty period. A 19.5 hour duty day would actually be much easier with a flying time of 16 hours than a flying time of 12 hours because the breaks would be significantly longer! I find it questionable that the pilots (the most safety-related people on the aircraft) would have the least restrictive duty limits of all.

## **Synopsis**

Captain of double crewed international flight describes fatigue experienced when a maintenance delay pushes the flight crew to their maximum duty day of 19.5 hours.

## Time / Day

Date : 201012  
Local Time Of Day : 0001-0600

## Place

Locale Reference.ATC Facility : ZZZ.ARTCC  
State Reference : US  
Altitude.MSL.Single Value : 31000

## Environment

Flight Conditions : VMC  
Light : Night

## Aircraft

Reference : X  
ATC / Advisory.Center : ZZZ  
Aircraft Operator : Air Carrier  
Make Model Name : B727 Undifferentiated or Other Model  
Crew Size.Number Of Crew : 3  
Operating Under FAR Part : Part 121  
Flight Plan : IFR  
Mission : Cargo / Freight  
Flight Phase : Cruise  
Route In Use : Direct  
Airspace.Class A : ZZZ

## Person

Reference : 1  
Location Of Person.Aircraft : X  
Location In Aircraft : Flight Deck  
Reporter Organization : Air Carrier  
Function.Flight Crew : Flight Engineer / Second Officer  
Qualification.Flight Crew : Flight Engineer  
Qualification.Flight Crew : Air Transport Pilot (ATP)  
Qualification.Flight Crew : Multiengine  
Qualification.Flight Crew : Flight Instructor  
Qualification.Flight Crew : Instrument  
Experience.Flight Crew.Total : 7500  
Experience.Flight Crew.Last 90 Days : 20  
Experience.Flight Crew.Type : 890  
ASRS Report Number.Accession Number : 925499  
Human Factors : Communication Breakdown  
Human Factors : Fatigue  
Human Factors : Situational Awareness  
Human Factors : Time Pressure  
Human Factors : Workload

Human Factors : Distraction  
Communication Breakdown.Party1 : Flight Crew  
Communication Breakdown.Party2 : Flight Crew  
Communication Breakdown.Party2 : ATC

## **Events**

Anomaly.Deviation - Track / Heading : All Types  
Anomaly.Deviation - Procedural : Clearance  
Detector.Person : Air Traffic Control  
When Detected : In-flight  
Result.Flight Crew : Became Reoriented  
Result.Flight Crew : Returned To Clearance  
Result.Air Traffic Control : Issued Advisory / Alert

## **Assessments**

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

## **Narrative: 1**

ATC had given us a vector for an enroute VOR. As we got into the service volume of the VOR, the Captain began to navigate directly to the VOR. While preparing for the STAR into our destination, the Captain mistakenly tuned the #1 VHF navigational radio to a NAVAID on the STAR and did not return it to station we were cleared to. He began errantly navigating to the wrong VOR. Neither the Copilot nor I (Engineer) noticed the changed frequency as we were involved in other flight deck duties. When ATC questioned us as to where we were navigating, it was obvious that we would pass nearly 30 miles south of the VOR. We made about an eight degree course correction to proceed to the assigned VOR. Captain and First Officer were on duty for approximately 14 hours and had been awake approximately 20 hours at the time of the incident.

## **Synopsis**

A B727 Engineer reported that the Captain, on duty for fourteen hours, failed to reselect the correct NAVAID allowing the aircraft to deviate before ATC alerted.

## Time / Day

Date : 201012  
Local Time Of Day : 0601-1200

## Environment

Light : Dawn

## Aircraft

Reference : X  
Aircraft Operator : Air Carrier  
Make Model Name : A319  
Crew Size.Number Of Crew : 2  
Operating Under FAR Part : Part 121  
Flight Phase : Initial Approach  
Flight Phase : Cruise

## 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 : 925456  
Human Factors : Fatigue

## Events

Anomaly.No Specific Anomaly Occurred : All Types  
Detector.Person : Flight Crew  
When Detected : In-flight  
Result.General : None Reported / Taken

## Assessments

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

## Narrative: 1

Flying the second red eye plus one, this red eye is an out and back with over seven hours of flight time. On the return to base I was falling asleep. I was startled by ATC calls and I was fighting to stay awake. We did the same flight the day before and I was very tired then as well. We were in cruise so I was able to stand up and wake up, but during approach it was difficult to catch all ATC calls. I talked with the Captain and stood up, stretched, [did] breathing exercises, etc. I should have called in fatigued. All back side of the clock flying should be one leg and only back

side of the clock show times. Good, healthy food needs to be supplied for the crews as none is available at the airport.

### **Synopsis**

A319 First Officer describes fatiguing out and back red eye flights with over seven hours of flight time.

## Time / Day

Date : 201012  
Local Time Of Day : 0001-0600

## Place

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

## Environment

Flight Conditions : VMC  
Light : Night

## Aircraft

ATC / Advisory.Tower : ZGSZ  
Aircraft Operator : Air Carrier  
Make Model Name : B767 Undifferentiated or Other Model  
Crew Size.Number Of Crew : 2  
Operating Under FAR Part : Part 121  
Flight Plan : IFR  
Mission : Cargo / Freight  
Flight Phase : Taxi  
Route In Use.Other

## 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 : 925414  
Human Factors : Fatigue  
Human Factors : Situational Awareness  
Human Factors : Confusion

## Events

Anomaly.Deviation - Procedural : Clearance  
Anomaly.Ground Incursion : Taxiway  
Detector.Person : Air Traffic Control  
When Detected : Taxi  
Result.Flight Crew : Became Reoriented  
Result.Air Traffic Control : Issued Advisory / Alert

## Assessments

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

## **Narrative: 1**

At night, while taxiing north on Taxiway H (Hotel) for takeoff, we noticed that our gross weight would exceed our maximum legal takeoff weight. Realizing that we would need a few minutes to burn off fuel, and wishing to be clear of traffic behind us on Taxiway H, we requested from the Tower Controller a right turn from Taxiway Hotel into the northern portion of the ramp area. This being a non-standard request, confusion ensued on the Controller's part as to what it was we intended to do, and as to why we wanted to do it. After a few transmissions, we seemed to have communicated properly our situation. We were cleared to turn right from Taxiway Hotel, enter the ramp, make a left turn, taxi through the ramp area, then make a left turn onto a ramp-exiting taxiway, and then rejoin Taxiway H. Entering the ramp, both the Captain and I noticed green taxiway lights to our immediate left. The Captain asked if this was the taxiway through the ramp area that we had been instructed to use. I referred to my commercial airport chart and responded "Yes". We turned left, following the green taxiway lights onto this taxiway. As we finished this turn, the Controller said "hold position." Not liking what I heard, I again referred to my commercial airport chart. My suspicions were confirmed. We had turned onto an incorrect ramp taxiway. I, for some reason, had misread the chart. There were several aircraft parked to our right. It became apparent that the Controller was concerned with the clearance we had between our wingtip and these aircraft. We assured him that we had more than enough room to maneuver. He politely explained that, in the future, we were not to use that taxiway. By this time, we had burned enough fuel to allow us to take off. We were given clearance to continue our taxi, turn left, and then rejoin Taxiway Hotel. The remainder of the taxi, takeoff and departure were without incident. Subsequent to this event, I had to ask myself why/how could I have misread the commercial airport ground chart? The chart was quite clear, and I had read back the proper instructions. My conclusion is simple: fatigue. Yes, we were just beginning the first flight of our duty day, but our trip schedule had already "flipped" our circadian rhythm three times, four times if a 19 hour 41 minute layover is considered to be a flip. This was not four flips over two weeks, this was four consecutive flips. Four layovers, four flips. The scheduled layovers were as follows: 19:41 followed by 21:05, 29:00, and 23:50. I was already a mess, and just beginning a new duty day.

## **Synopsis**

A fatigued B767 Captain taxied into a congested ZGSZ ramp area at night to delay takeoff for weight reasons and inadvertently entered an incorrect ramp which alarmed the Controller. Fatigue and language were the main issues.

## Time / Day

Date : 201012  
Local Time Of Day : 1201-1800

## Place

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

## Aircraft

Reference : X  
Aircraft Operator : Air Carrier  
Make Model Name : Regional Jet 200 ER/LR (CRJ200)  
Crew Size.Number Of Crew : 2  
Operating Under FAR Part : Part 121  
Flight Phase : Parked

## Person

Reference : 1  
Location Of Person : Gate / Ramp / Line  
Reporter Organization : Air Carrier  
Function.Flight Crew : Captain  
Qualification.Flight Crew : Air Transport Pilot (ATP)  
ASRS Report Number.Accession Number : 925181  
Human Factors : Fatigue

## Events

Anomaly.No Specific Anomaly Occurred : All Types  
Detector.Person : Flight Crew  
When Detected : Aircraft In Service At Gate

## Assessments

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

## Narrative: 1

I was scheduled for a continuous duty overnight which went on duty in the early evening and remained on duty until early morning the next day. I was also scheduled to start a two day trip the following morning. The first day of my two day trip consisted of approximately 13 hours of duty. Although I was tired at the start of my two day trip, I determined I was safe to fly. We completed our first two legs, a round trip, without incident. On arrival we had a plane swap, and the plane we swapped into was on maintenance. As the duty day continued I grew more fatigued. I came to the determination that I was too fatigued to complete my remaining three flights safely and notified scheduling. Scheduling accommodated

me by putting me in a hotel, and we planned to resume my trip the following day after I got the needed rest. I believe my fatigue resulted primarily from the shift change in duty time resulting from my continuous duty overnight completed one day prior to the start of this trip. I essentially worked third shift on Day 1 to Day 2, and began a first/second shift trip on Day 3. I slept approximately 3 hours at the completion of the overnight, and had a very restless night on Day 2's night as a result of not sleeping at my normal sleep hours during my trip. It is my opinion that continuous duty overnights should not be paired next to normal trip pairings. Continuous duty overnight pairings should be paired only with other continuous duty pairings. I believe it is too much to ask your body to shift schedules so dramatically and expect you to be safe to operate an aircraft at 100%.

## **Synopsis**

Air Carrier Captain reports calling in fatigued during the trip pairing following a continuous duty overnight, when maintenance delays push the duty day beyond the originally scheduled 13 hours.

## **Time / Day**

Date : 201012  
Local Time Of Day : 1201-1800

## **Place**

Locale Reference.Airport : RDM.Airport  
State Reference : OR

## **Environment**

Flight Conditions : VMC  
Light : Night  
Ceiling : CLR

## **Aircraft**

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

## **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)  
ASRS Report Number.Accession Number : 925174  
Human Factors : Communication Breakdown  
Human Factors : Situational Awareness  
Human Factors : Workload  
Communication Breakdown.Party1 : Flight Crew  
Communication Breakdown.Party2 : Flight Crew

## **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 : Commercial  
ASRS Report Number.Accession Number : 925175  
Human Factors : Workload  
Human Factors : Confusion  
Human Factors : Distraction  
Human Factors : Fatigue  
Human Factors : Situational Awareness  
Human Factors : Training / Qualification

## Events

Anomaly.Deviation - Procedural : Published Material / Policy  
Anomaly.Inflight Event / Encounter : CFTT / CFIT  
Detector.Automation : Aircraft Terrain Warning  
Detector.Person : Flight Crew  
When Detected : In-flight  
Result.Flight Crew : Took Evasive Action  
Result.Flight Crew : Returned To Clearance

## Assessments

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

## Narrative: 1

During a visual approach, [we] received a terrain warning and "Pull Up". Pilot flying began Missed Approach procedure. After clearing conflict, returned to normal flight regime and continued the approach visually. During the approach I commented to the pilot flying to remain over the lights that surround the higher terrain to the left of us. The pilot flying corrected course but not enough for the strong wind which was pushing us toward the higher terrain. I was accomplishing checklists while monitoring the terrain as I could see it. Our Terrain Displays showed all higher areas of terrain to our left by more than two miles. [They were] used as a backup to our visual cues. A red terrain marking appeared on the moving map at the same time as the warnings. The pilot flying took corrective actions to gain separation.

## Narrative: 2

On a night visual approach from the northwest to Runway 22 at RDM, upon selection of landing gear down and initiation of descent [we] received aural warning "Caution Terrain" followed immediately by "Terrain, Terrain, Pull Up!" [We] initiated [a] go-around procedure. Terrain warning ceased immediately. Both pilots then agreed that the aircraft remained in position to continue the approach. Approach and landing completed uneventfully. Post-flight examination of flight tracking data showed we were never less than three miles from terrain within 1,000 FT of our altitude. I failed, as pilot flying, to make a sufficient plan for the approach. Once the error was identified by the pilot not flying I failed to recognize how poor my planning was and therefore took insufficient action to remedy the error. We were expecting a visual approach but I did not plan sufficiently for terrain avoidance during a night visual approach. I was always aware of my distance from the airport but I failed to correlate that distance to the terrain that I know to be northwest of RDM. Upon reflection, I realize that, though I have flown the visual to Runway 22 many times, I have not done so recently at night. I have been flying AM shifts for

eighteen months and though I have flown many approaches to RDM from the northwest, recent experience is only during daytime. I believe fatigue contributed to the inadequacy of my approach planning. At the time I did not feel like I was taking an unprofessional or relaxed attitude toward my approach planning. I was not inattentive but I did fail to properly use of all the information that was available. Looking back, I should have removed myself from the trip because of fatigue three hours before departure. I had decided to do so before we had a three hour break between our fourth and fifth legs. During the break a positive interaction with a passenger and some food made me feel energetic and alert. When I began to feel tired again I was worried that I would get in trouble for calling in fatigued on a holiday or for making the call too close to departure time, as opposed to earlier in my three hour layover.

## **Synopsis**

A First Officer on a RDM night visual approach was slow to correct for terrain clearance and executed an escape maneuver in response to an EGPWS Terrain Warning. A normal approach and landing followed the return to profile.

## Time / Day

Date : 201011  
Local Time Of Day : 1201-1800

## Place

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

## Aircraft

Reference : X  
Aircraft Operator : Air Carrier  
Make Model Name : Regional Jet 700 ER/LR (CRJ700)  
Crew Size.Number Of Crew : 2  
Operating Under FAR Part : Part 121  
Flight Plan : IFR  
Flight Phase : Parked

## Component

Aircraft Component : Pneumatic Ducting  
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 Flying  
Function.Flight Crew : Captain  
Qualification.Flight Crew : Air Transport Pilot (ATP)  
Experience.Flight Crew.Total : 12500  
Experience.Flight Crew.Last 90 Days : 200  
Experience.Flight Crew.Type : 10000  
ASRS Report Number.Accession Number : 922111  
Human Factors : Troubleshooting  
Human Factors : Training / Qualification  
Human Factors : Time Pressure  
Human Factors : Fatigue  
Human Factors : Confusion  
Human Factors : Communication Breakdown  
Communication Breakdown.Party1 : Flight Crew  
Communication Breakdown.Party2 : Ground Personnel  
Communication Breakdown.Party2 : Maintenance  
Communication Breakdown.Party2 : Flight Attendant  
Communication Breakdown.Party2 : Dispatch  
Communication Breakdown.Party2 : Flight Crew

## Person : 2

Reference : 2  
Location Of Person.Aircraft : X  
Location In Aircraft : Flight Deck  
Reporter Organization : Air Carrier  
Function.Flight Crew : Pilot Not Flying  
Function.Flight Crew : First Officer  
Experience.Flight Crew.Total : 7200  
Experience.Flight Crew.Last 90 Days : 160  
Experience.Flight Crew.Type : 120  
ASRS Report Number.Accession Number : 921555  
Human Factors : Communication Breakdown  
Human Factors : Training / Qualification  
Human Factors : Human-Machine Interface  
Human Factors : Fatigue  
Human Factors : Confusion  
Human Factors : Troubleshooting  
Communication Breakdown.Party1 : Flight Crew  
Communication Breakdown.Party2 : Maintenance  
Communication Breakdown.Party2 : Flight Crew

## Events

Anomaly.Aircraft Equipment Problem : Critical  
Anomaly.Flight Deck / Cabin / Aircraft Event : Other / Unknown  
Anomaly.Deviation - Procedural : Maintenance  
Anomaly.Inflight Event / Encounter : Weather / Turbulence  
Were Passengers Involved In Event : N  
When Detected : In-flight  
Result.General : Flight Cancelled / Delayed  
Result.General : Work Refused  
Result.General : Maintenance Action

## Assessments

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

## Narrative: 1

During climb to FL190 we received an Anti Ice Duct Warning MSG. The flight conditions were sudden accumulation of ice and moderate turbulence. I was the flying pilot and requested a call to ATC for a continued climb to get out of icing and also requested the QRH be reviewed. In a very short time the tops were reached and with the additional altitude requested from ATC we were able to quickly leave icing conditions. I coordinated a hold with ATC in order to evaluate and determine the best course of action. I assessed the level of ice accumulated by looking out at the wing and winglet, window frame, and wipers. Ice was accumulated on the non heated surfaces, however, the wing itself was free of ice accumulation. While

slowing to a more suitable holding speed, the First Officer emphasized the ice accumulation warning from the QRH and I assured her the wing appeared clean and we were using a prudent speed of above 230K. I also pointed out that it was clearly visible. We contacted the Dispatcher and determined the most favorable weather was at our destination. Fuel was a factor. We could see the back of the system containing the icing to our right and stretching out over our filed STAR route. We coordinated with ATC and went north to join a different arrival following another flight who's crew provided continuous updates. The flight required a descent through a cloud layer and the anti ice was placed back to the on position and functioned normally. The arrival was uneventful until the five mile final when a medical helicopter intruded into the the approach path and the Tower issued a go around. Go around was standard and a quick return for a visual was accomplished; we were watching fuel levels and were at around 3500 pounds. During the second approach the same helicopter departed and the Tower was vocal to them about staying clear. The First Officer keyed up and reported to the Tower that we must land, which I felt conveyed an inaccurate message concerning our condition of flight. We were above minimum fuel and the airport was VFR. Landing and taxi were uneventful. At the gate Maintenance arrived and checked the Anti-ice system. They found an open loop and deferred it. While trying to preflight the next leg the First Officer conveyed to me she was not satisfied with Maintenance's assessment and felt it was unsafe. I rechecked with Maintenance and felt they had done the correct action. At this point the First Officer had contacted the Duty Chief Pilot and she told me that we should check with Maintenance Control to verify that ZZZ Maintenance had done things correctly. She advised she was told by the Chief Pilot she had called that you cannot trust ZZZ Maintenance. I spoke to Maintenance Control and Flight Standards along with the Fleet Manager. I felt that things had been done correctly and it was safe to proceed. I had a difficult time rounding up the crew and coordinating a resolution. First Officer left the aircraft a couple of times leaving me guessing. The flight attendants rightfully became concerned and ultimately refused to fly. The First Officer was unsure of the circumstances and eventually called in fatigued. Flight was canceled.

## **Narrative: 2**

There was light to moderate turbulence during the climb so, upon the Captain's request, I advised the forward Flight Attendant at 14,900 FT to stay seated until further notice. While I was on the intercom a left and right anti-ice duct warning message appeared (side A and B failed). The QRH warning section said to turn off the wing anti-ice duct and exit the icing conditions. The Captain requested FL230 and we arrived almost on top. Then I requested 250 and we were completely out of the clouds. This took maybe 10 minutes to climb from roughly 15,000 to 25,000 FT, without wing-anti-icing equipment available. During that climb about one and a half inches of ice formed on the front windshield and wiper areas of the CRJ 700. The Captain said the wings were clear of ice but I said that he cannot see the wing to confirm that. As soon as the wing-anti-ice switch was turned off the wing anti-ice caution messages and icing messages appeared and I read the QRH to the Captain. It said to recycle the switch. The wing anti-ice became available again, but we still didn't know what the problem was. Caution messages persisted. We asked ATC for a rerouting to the north to avoid the icing conditions and upon arrival anyways ATC gave us a STAR which did so anyways. We did encounter icing on the arrival as the storm weather was approaching the airport rapidly. On the ILS approach we had to do a go-around because of a medivac helicopter doing an emergency landing to pick up a passenger close to the approach end of our runway. We performed the missed approach successfully but flew into icing conditions again and received

vectors back around to the ILS and landed. I advised the Tower that we must land this time as we were approaching minimum fuel and didn't know what was the problem with the wing-anti-ice system. I spoke and walked around the aircraft with two different mechanics who said that they didn't know why both loops A and B failed but there is apparently a glitch in the anti-ice system and they felt the aircraft was not completely fixed and fit to fly. The single loop wing-anti-ice message that failed should have been a status message (Duct mon fail) not an "all system A and B" failure warning message. I felt as if we needed to park the aircraft until they figured out the whole problem, not just defer one left loop and say all is well; the two mechanics agreed, the Captain disagreed. He said that he spoke to the 700 Manager from the cockpit and he said that an AD is about to come out that states that the CRJ 700 wing anti-ice system has had a rash of these same problems and that the AD will state what we should do. I felt more nervous about flying after that. I filled in the flight attendants about why I felt the aircraft was unsafe to go and three of them decided to not go as well. Scheduling kept sending more flight attendants out to fly with us. The Captain also spoke with the flight attendants and said the left loop is deferred and we're good to go. I disagreed. He said that I did not understand the system. He thought I was naive about the system so he tried to explain the system to me saying the single loop deferral was adequate for Maintenance. Maintenance signed it off and the aircraft is good to fly now. I asked him if we should get the red dual loop warning message again then what do we do in icing conditions at night now that the sun was gone. He said we will just come back in and land. I didn't like that because if it did fail again and we accumulated enough ice, we would possibly crash. The two mechanics agreed that the whole system needed a careful looking at. The stress was already enough the first time around and now he wants to chance it again. Two other guys pressured me to go saying the Captain knows best, which I think he was very wrong. After speaking with the Captain and [the two others], they all pressured me to go saying that the aircraft was safe and, against my will, I said I would go. In the interim, the flight attendants were calling Scheduling to say they wouldn't go. After all of the steps taken in discussing the failure, speaking with everyone involved, explaining things for three hours, and after 6 hours of stress, I called off fatigued. I was sent to the hotel and the flight was canceled. Crewmembers shouldn't be pressured to fly an aircraft without a thorough search of what the problem was, especially one as serious as this one. This station is a Maintenance Base and they should have troubleshooted the whole system to see why both the A and B systems failed, and why the warning messages came up instead of the single loop status (Duct mon loop failed) message. Just because you don't have an extra First Officer available doesn't mean that we should fly this flight anyways, pressuring the original First Officer to fly it because of all of the money involved. Really, doesn't safety come first? In the past I have experienced a dual wing anti-ice duct warning message on takeoff out and we declared the emergency and landed safely. Last week we had a wing duct mon loop status message that was taken care of appropriately for the failure and properly deferred (single loop failure). So these experiences and the fact that I am experienced with the Company in the RJ's for the past four years, I have passed my written exam in this aircraft with a 98% and the check ride very successfully, should be sufficient evidence that I am not a naive idiot. Maybe my blond hair and being a woman had something to do with the Captain's condescending attitude. One other man also was condescending, I think after speaking with this Captain. There is no place in the cockpit for these attitudes or at our company as we are all professionals trying to do our very best and deserve respect.

## **Synopsis**

A serious breakdown in communication between the Captain and First Officer regarding the Maintenance deferral of a malfunctioning Pneumatic duct temperature sensor ultimately resulted in the refusal of the First Officer and the flight attendants to staff a subsequent flight.

## Time / Day

Date : 201012  
Local Time Of Day : 1201-1800

## Place

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

## Aircraft

Reference : X  
Aircraft Operator : Air Carrier  
Make Model Name : Q400  
Crew Size.Number Of Crew : 2  
Operating Under FAR Part : Part 121  
Flight Plan : IFR  
Mission : Passenger  
Flight Phase : Parked

## Person : 1

Reference : 1  
Location Of Person.Aircraft : X  
Location In Aircraft : Flight Deck  
Reporter Organization : Air Carrier  
Function.Flight Crew : First Officer  
Qualification.Flight Crew : Commercial  
ASRS Report Number.Accession Number : 921727  
Human Factors : Communication Breakdown  
Human Factors : Fatigue  
Human Factors : Time Pressure  
Communication Breakdown.Party1 : Flight Crew  
Communication Breakdown.Party2 : Other

## Person : 2

Reference : 2  
Location Of Person.Aircraft : X  
Location In Aircraft : Flight Deck  
Reporter Organization : Air Carrier  
Function.Flight Crew : Captain  
Qualification.Flight Crew : Air Transport Pilot (ATP)  
ASRS Report Number.Accession Number : 921728  
Human Factors : Fatigue

## Events

Anomaly.No Specific Anomaly Occurred : All Types  
Detector.Person : Flight Crew

Were Passengers Involved In Event : N  
When Detected : In-flight  
Result.General : Work Refused

## **Assessments**

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

## **Narrative: 1**

On day three of a five day trip I completed a 14 hour duty period. Following that duty period I was given 9:10 minutes of rest with a pre-dawn report time for day four. On day four I was extended by scheduling into another relatively long duty day (9:30 hours). About seven hours into that duty day I was feeling the effects of fatigue. For example, I had to ask the Captain if we had completed checklists and get verification that we were cleared to land. After completing that flight, I called Crew Scheduling and had myself removed from any further duties that day. I had long duty days on the first three days of my trip. By day three I was already getting worn out. Completing a 14 hour day followed by a short rest period with an early show was not an acceptable/safe assignment, especially with another long day tacked on to day four. After I called in fatigued I was docked pay and a "red tag" was put on my schedule by the company (A mild deterrent technique intended to scare/dissuade crews from calling in fatigued). According to scheduling I was legal to work 16 hours. I feel like I was setup for failure in this situation. Because I was given a non-human (computer) schedule I was docked pay and will now receive a call from a management pilot to have the "red tag" removed from my line. Makes me wonder how serious the company is about safety.

## **Narrative: 2**

Removed from trip due to excessive fatigue. Scheduled for six days on reserve with multiple swaps from AM to PM to AM, multiple days over 12 hours of duty and seven flights after only an 8 hour overnight.

## **Synopsis**

A Q-400 flight crew refused further assignments due to fatigue during the fourth day of a five day flight sequence. The company applied modest disciplinary actions and docked them pay for the flying they were unable to perform due to feeling unfit to fly.

## Time / Day

Date : 201011  
Local Time Of Day : 0601-1200

## Place

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

## Environment

Light : Night

## Aircraft

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

## 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 : 921052  
Human Factors : Physiological - Other  
Human Factors : Fatigue  
Human Factors : Distraction  
Human Factors : Communication Breakdown  
Human Factors : Workload  
Human Factors : Troubleshooting  
Human Factors : Situational Awareness  
Human Factors : Time Pressure  
Communication Breakdown.Party1 : Flight Crew  
Communication Breakdown.Party2 : Dispatch  
Communication Breakdown.Party2 : Other

## 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 : 921392  
Human Factors : Time Pressure  
Human Factors : Fatigue  
Human Factors : Distraction  
Human Factors : Workload

## Events

Anomaly.Deviation - Procedural : Published Material / Policy  
Anomaly.Deviation - Procedural : FAR  
Anomaly.Inflight Event / Encounter : Weather / Turbulence  
Detector.Person : Flight Crew  
When Detected : Pre-flight  
Result.General : None Reported / Taken

## Assessments

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

## Narrative: 1

Upon receiving/reviewing flight paperwork 1:30 prior to departure, noted a non-normal flight route, and abnormally long FLIGHT time (6+09). Pairing is normally schedule for 5+40 BLOCK time. Contacted Dispatch to receive a flight briefing; they reiterated the lengthy routing was due to enroute WX as well as ETOPS alternate airport weather consideration. At that time, I asked IF Dispatch was planning on using the same route to return, as that may infringe upon FAR 121.483a (two-pilots plus an additional crewmember limited to 12 hours of flying in a 24 consecutive hour period). Dispatch stated they weren't sure (as they were trying to coordinate 'other' flight delay problems at the same time as my briefing). Dispatch said they didn't think about that, and that they appreciated the 'heads up'. I then called Crew Scheduler right away and made him aware of the possibility of a 12/24 problem. He responded by saying it hadn't been loaded into Crew Tracking System yet and that he would check it out and keeps an eye on it. Due to enroute turbulence, aircraft speed was limited to M.78 (flight planned at M.80) over roughly 40% of the flight, therefore increasing the overall block time to 6+39 at block in at the destination. Preparing for a quick turnaround, the Captain reviewed the return flight planning paperwork, finding the reverse course on the abnormally long route with a flight time projected at 6+03. Discussions between the flight crew ensued between the flight crew regarding the FAR 12 hour limitation. I contacted Crew Scheduling right away and let him know that we were not willing to accept this assignment, as it would exceed the FAR. He stated that the regulation was based on "Planned" block (via the pairings), not actual block time for the day. I asked to speak with his supervisor. He responded by accepting my request to speak to the Supervisor, as he would "get him on the phone". I was placed on hold for approximately 3 minutes, at which time the scheduler relayed, "...the supervisor says there are provisions in the CONTRACT to allow a 3 pilot crew to take the flight, therefore he is ordering us to take the return flight to our home base". (Note: the CONTRACT deals only with DUTY-TIME, not FAR's; I was a bit confused) I

subsequently called Chief Pilot on his cell phone and got voicemail; I did not leave a message - the greeting was generic and I wasn't sure I had the correct number. Shortly thereafter, on the local agent's duty cell, the Chief Pilot called and we briefly spoke of the situation. He understood the situation and that the Scheduling Supervisor had ordered us to take the flight; The Chief Pilot ordered us to take the return flight. Seeing as there is only 1 flight/week on this route and that it would cause undue delay to the passengers and crew, and costs involved in passenger and crew accommodation and/or rebooking, it is understandable that Management would want the aircraft to return as planned. As this is already a diurnal turn for a heavy crew, the workload is high enough; especially on the return leg with the middle of the night departure, and local/enroute weather conditions. It is RARE that due to such extreme weather that the flight/crew are planned for the abnormal route and flight time. I feel that in such case(s), the burden should NOT be placed upon the crew to complete the mission for purely financial gain on the part of the company, by keeping the schedule, regardless of what conditions the crew may face. Taking 'strained' interpretations of the FAR's, and making the crew FLY NOW/GRIEVE LATER is unacceptable. The Company was given a "heads up" prior to departure (Dispatch; Crew Scheduling). Company (Crew Scheduler; Senior Director Crew Scheduling; Chief Pilot) was AGAIN notified of the impending FAR violation amid the pairing, and the crews' wishes to not continue the flight. Understanding that there are cases where an 'operational issue' amid a flight day/pairing causes either a 2 or 3 pilot crew to exceed the 8 or 12 in 24 hour rule(s), this was STRETCHING IT, as the company was WELL AWARE of WEATHER, ROUTE, FLIGHT/BLOCK TIME(s), and FAR's....PRIOR TO DEPARTURE...yet chose to put ON-TIME PERFORMANCE and REVENUE GENERATION before SAFETY. Diurnal operation; augmented crew; abnormal routing; extended flight time; enroute/ETOPS alternate and destination weather issues. I, as the Captain, made the company VERY AWARE of the issue we were up against. The crew was NOT SUPPORTED in this operation. Luckily, all were well rested prior to initially reporting for the flight.

## **Synopsis**

Three B767-300 pilots were ordered to fly a return leg on an international trip which would put the crew over 12 flight hours in 24. The Company knew prior to departure that the problem would exist.

## Time / Day

Date : 201011  
Local Time Of Day : 0601-1200

## Place

Locale Reference.Airport : BOS.Airport  
State Reference : MA  
Altitude.AGL.Single Value : 0

## Environment

Flight Conditions : VMC  
Light : Dawn

## Aircraft

Reference : X  
ATC / Advisory.TRACON : A90  
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 : Takeoff  
Flight Phase : Taxi  
Airspace.Class B : BOS

## Component

Aircraft Component : Pneumatic Valve/Bleed Valve  
Aircraft Reference : X  
Problem : Improperly Operated

## 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)  
Experience.Flight Crew.Total : 13305  
Experience.Flight Crew.Last 90 Days : 174  
Experience.Flight Crew.Type : 5472  
ASRS Report Number.Accession Number : 920653  
Human Factors : Distraction  
Human Factors : Fatigue

Human Factors : Workload  
Human Factors : Confusion

## Events

Anomaly.Deviation - Procedural : Published Material / Policy  
Detector.Person : Flight Crew  
When Detected : In-flight  
Result.Flight Crew : Became Reoriented

## Assessments

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

## Narrative: 1

We briefed a Flaps 2, TOGA, BLEEDS OFF take off from Runway 27. After takeoff, we noticed that we had forgotten to select the engine bleeds off. I believe two items contributed to our omitting to select the engine bleeds off as we had briefed.

1. As BOS was using Runway 27 for takeoff, I elected to do a single engine taxi to conserve fuel. Taxiing from our gate to Runway 27 involved crossing 3 runways and a taxi route that I was not very familiar with. While we remained focused on the taxi route and coordinating clearance to cross the 3 runways enroute to Runway 27, we also became distracted from our bleeds off SOP set up. As an additional distraction, the First Officer was also tasked with starting the number 2 engine while backing me up with the taxi route.
2. I also believe that fatigue was a contributing factor in our SOP omission. This was day three of a trip with a wake pattern of early, early, and earliest. Day one involved a XD:00 domicile time wake up. Day two was XD:15 and day three was a XA:45 domicile time wake up. While I felt fit to fly, I also felt tired from the very early wake up on day three. I will try to be more careful and deliberate with SOP compliance and give more consideration to minimizing distractions, especially when fatigued in the future.

## Synopsis

An A320 Captain reported that the crew failed to select the engine bleeds off for a BLEEDS OFF takeoff because the First Officer was starting an engine, they were dealing with complex BOS taxi requirements, and experiencing fatigue.

## Time / Day

Date : 201011  
Local Time Of Day : 1201-1800

## Place

Locale Reference.Airport : ATL.Airport  
State Reference : GA  
Altitude.AGL.Single Value : 15000

## Environment

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

## Aircraft

Reference : X  
ATC / Advisory.TRACON : A80  
Aircraft Operator : Air Carrier  
Make Model Name : Light Transport, Low Wing, 2 Turbojet Eng  
Crew Size.Number Of Crew : 2  
Operating Under FAR Part : Part 121  
Flight Plan : IFR  
Mission : Passenger  
Flight Phase : Climb  
Route In Use.SID : NUGGT4  
Airspace.Class B : ATL

## Component

Aircraft Component : FMS/FMC  
Aircraft Reference : X  
Problem : Improperly Operated

## 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)  
Qualification.Flight Crew : Multiengine  
Experience.Flight Crew.Total : 5000  
Experience.Flight Crew.Last 90 Days : 130  
Experience.Flight Crew.Type : 700  
ASRS Report Number.Accession Number : 920543  
Human Factors : Fatigue

Human Factors : Human-Machine Interface  
Human Factors : Time Pressure  
Human Factors : Workload  
Human Factors : Confusion

## Events

Anomaly.Deviation - Track / Heading : All Types  
Anomaly.Deviation - Procedural : Published Material / Policy  
Anomaly.Deviation - Procedural : Clearance  
Detector.Person : Air Traffic Control  
When Detected : In-flight  
Result.Flight Crew : Became Reoriented  
Result.Air Traffic Control : Issued Advisory / Alert

## Assessments

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

## Narrative: 1

After I loaded the flight plan into the FMS with the SUMMIT FOUR RNAV departure approximately 1 hour prior to departure and I requested the PDC 30 minutes prior to departure via ACARS (PDC). Our departure (SID) was changed by ATC from a SUMMIT FOUR to a NUGGT4, we should have caught it, but we did not. The change on the routing comes in between the dashes, (EX: -summt4.summt-), but since the first two way points in both departure (SID) departing RUNWAY 26L were identical. The Captain and I overlooked it, we figured out the problem after the ATC told us to call ATC after passing SUMMIT waypoint approx at 15000 feet. We did not have any conflict with another aircraft. At that point we re-checked the paper work and figured out the problem. I do believe that [fatigue] from the prior 14 hour duty day followed by an early duty-in, and the same initial waypoint in those SIDS are contributing factors. If the first waypoint in every SID were different it could raise a flag on the take off clearance, since when you are replying back the clearance you are looking at that waypoint on the screen.

## Synopsis

An aircraft departed ATL after receiving a revised PDC SID which included the NUGGT FOUR. The crew failed to remove the SUMMIT FOUR from the FMC and so had a track deviation on departure.

## Time / Day

Date : 201011  
Local Time Of Day : 1801-2400

## Place

Locale Reference.Airport : EWR.Airport  
State Reference : NJ  
Relative Position.Angle.Radial : 095  
Relative Position.Distance.Nautical Miles : 10  
Altitude.MSL.Single Value : 11000

## Environment

Flight Conditions : VMC  
Light : Night

## Aircraft

Reference : X  
ATC / Advisory.TRACON : N90  
Aircraft Operator : Air Carrier  
Make Model Name : A300  
Crew Size.Number Of Crew : 2  
Operating Under FAR Part : Part 121  
Flight Plan : IFR  
Mission : Cargo / Freight  
Flight Phase : Takeoff  
Airspace.Class B : EWR

## Component

Aircraft Component : PFD  
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 Flying  
Function.Flight Crew : First Officer  
Experience.Flight Crew.Total : 19450  
Experience.Flight Crew.Last 90 Days : 75  
Experience.Flight Crew.Type : 225  
ASRS Report Number.Accession Number : 920371  
Human Factors : Communication Breakdown  
Human Factors : Distraction  
Human Factors : Human-Machine Interface

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

## **Person : 2**

Reference : 2  
Location Of Person.Aircraft : X  
Location In Aircraft : Flight Deck  
Reporter Organization : Air Carrier  
Function.Flight Crew : Captain  
Function.Flight Crew : Pilot Not Flying  
Qualification.Flight Crew : Air Transport Pilot (ATP)  
Experience.Flight Crew.Total : 11922  
Experience.Flight Crew.Last 90 Days : 82  
Experience.Flight Crew.Type : 909  
ASRS Report Number.Accession Number : 920367  
Human Factors : Communication Breakdown  
Human Factors : Distraction  
Human Factors : Fatigue  
Communication Breakdown.Party1 : Flight Crew  
Communication Breakdown.Party2 : ATC  
Communication Breakdown.Party2 : Flight Crew

## **Events**

Anomaly.Aircraft Equipment Problem : Less Severe  
Anomaly.Deviation - Altitude : Overshoot  
Anomaly.Deviation - Procedural : Clearance  
Detector.Person : Flight Crew  
Were Passengers Involved In Event : N  
When Detected : In-flight  
Result.Flight Crew : Became Reoriented  
Result.Flight Crew : Returned To Clearance  
Result.Aircraft : Equipment Problem Dissipated

## **Assessments**

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

## **Narrative: 1**

After departing EWR we were assigned to climb to 11,000 FT after contacting Departure Control. I was manually flying the aircraft at the time. Departure cleared us direct to a waypoint that was not in our filed route of flight. We were also given a frequency change at the same time. As we were climbing through 9,500 FT the ND/PFD on my side blinked off then back on. This distraction, along with the newly assigned routing caused me to overshoot our assigned altitude by 500 FT. As I started to descend back to 11,000 we were then cleared to climb to FL230. After reaching cruise altitude we briefly discussed the issue and then again after landing in a crew room. It was agreed that in a busy terminal area we should utilize automation to maintain lateral and vertical flight.

## **Narrative: 2**

I acknowledged the routing and frequency change and flipped the comm switch to the new frequency, then entered direct to "SJB" in the FMC. The FMC responded with "not in data base" because I had reversed the last two letters of the VOR identifier. The Controller did not mention the altitude deviation. The rest of the flight was uneventful. The First Officer and I later discussed what happened and why. I learned that when the aircraft was approaching 11,000 FT both the First Officer's primary and secondary flight displays blanked out and that he had to reference my displays until his resumed normal operations. Blanking of flight displays is a known anomaly on the A300. This leg was the first leg of the pairing. We positioned to EWR the previous day and laid over in the hotel. I stayed up late watching football and slept until XA:00 the next morning. I was busy all day and went back to bed at XS:00 attempting to take a nap. I was unsuccessful and never did fall asleep. Our scheduled departure time was XO:00 local time.

## **Synopsis**

On climbout an A300 Flight Crew failed to level at their cleared altitude when the pilot flying momentarily lost his NAV displays and the pilot not flying was heads down correcting a CDU nav entry error.

## Time / Day

Date : 201011  
Local Time Of Day : 1801-2400

## Place

Locale Reference.Airport : AVL.Airport  
State Reference : NC  
Altitude.MSL.Single Value : 5500

## Environment

Flight Conditions : VMC  
Light : Night

## Aircraft

Reference : X  
ATC / Advisory.Tower : AVL  
Aircraft Operator : Air Carrier  
Make Model Name : Regional Jet 200 ER/LR (CRJ200)  
Crew Size.Number Of Crew : 2  
Operating Under FAR Part : Part 121  
Flight Plan : IFR  
Flight Phase : Initial Approach  
Airspace.Class C : AVL

## 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 : Commercial  
ASRS Report Number.Accession Number : 920227  
Human Factors : Communication Breakdown  
Human Factors : Fatigue  
Human Factors : Situational Awareness  
Communication Breakdown.Party1 : Flight Crew  
Communication Breakdown.Party2 : Flight Crew

## Person : 2

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

Qualification.Flight Crew : Air Transport Pilot (ATP)  
ASRS Report Number.Accession Number : 920225

## Events

Anomaly.Deviation - Procedural : Published Material / Policy  
Anomaly.Inflight Event / Encounter : CFTT / CFIT  
Detector.Automation : Aircraft Terrain Warning  
Were Passengers Involved In Event : N  
When Detected : In-flight  
Result.Flight Crew : Became Reoriented  
Result.Flight Crew : FLC complied w / Automation / Advisory  
Result.Flight Crew : Took Evasive Action

## Assessments

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

## Narrative: 1

Prior to departure, we covered the terrain considerations and special procedures for AVL arrivals. We were cleared down to 5,500 FT with AVL approach. We were asked if we saw the airport by ATC, we responded yes. We unwisely accepted a clearance for a visual to 16. Still at 5,500 FT, I stated to the pilot flying that we should remain there until intercepting. While I was looking at the runway outside the side window the Captain asked me "Does it look OK to you?" To which I responded "yes." We had just started down from 5,500 FT when we received an EGPWS caution message. We immediately initiated the escape maneuver and were clear before we had time to complete it. We then proceeded to join the ILS localizer and glideslope and made a normal landing. We made the mistake of accepting a visual approach even though we covered the airport specific procedures in our manuals, including the company pages during the departure briefing. It was the 6th and final leg of a 13 and a half hour duty day, and I was used to flying in daylight there and accepting visual approaches. More assertiveness training for the first officer might be called for. My suggestion should have been phrased clearer and with more advocacy. The long duty day could have been a contributing factor.

## Narrative: 2

We briefed the arrival and approach as a night visual and that we would need to stay high and be on the ILS before making the approach. We also briefed the suggestion that we configure early (which we did perform) and that we maintain situational awareness using the EGPWS terrain display on the MFDs (which we also did). Initially, the First Officer did express that we should stay high until further along in the downwind, but I queried again to see if he thought it was okay once abeam the threshold. He said "yes", and I commenced a descent maneuvering for the approach. I think we could have been tired and overworked (a contributing factor). More vigilance to maintain SA on the night approaches and in terrain. Asking for the ILS approach into AVL and others like it on the Special Airports list. Better communication between the pilot flying to the pilot not flying.

## Synopsis

A tired CRJ flight crew accepted a night visual approach into AVL with surrounding high terrain despite having agreed to not do so during a pre-departure briefing. Upon beginning descent while on downwind they received an EGPWS terrain warning, climbed back to altitude and continued downwind to an appropriate spot from which to follow ILS guidance.

## Time / Day

Date : 201011  
Local Time Of Day : 0001-0600

## Place

Locale Reference.Airport : SWF.Airport  
State Reference : NY  
Relative Position.Angle.Radial : 100  
Altitude.MSL.Single Value : 21000

## Environment

Flight Conditions : VMC  
Weather Elements / Visibility.Visibility : 10  
Light : Dawn  
Ceiling.Single Value : 25000  
RVR.Single Value : 6000

## Aircraft

Reference : X  
ATC / Advisory.Center : ZNY  
Aircraft Operator : Air Carrier  
Make Model Name : B727 Undifferentiated or Other Model  
Crew Size.Number Of Crew : 3  
Operating Under FAR Part : Part 121  
Flight Plan : IFR  
Mission : Cargo / Freight  
Flight Phase : Descent  
Route In Use : Direct  
Airspace.Class A : ZNY

## Component

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

## Person : 1

Reference : 1  
Location Of Person.Aircraft : X  
Location In Aircraft : Flight Deck  
Reporter Organization : Air Carrier  
Function.Flight Crew : Pilot Flying  
Function.Flight Crew : First Officer  
Qualification.Flight Crew : Flight Engineer  
Qualification.Flight Crew : Instrument  
Qualification.Flight Crew : Multiengine  
Qualification.Flight Crew : Flight Instructor

Qualification.Flight Crew : Air Transport Pilot (ATP)  
Experience.Flight Crew.Total : 4000  
Experience.Flight Crew.Last 90 Days : 60  
Experience.Flight Crew.Type : 400  
ASRS Report Number.Accession Number : 920078  
Human Factors : Confusion  
Human Factors : Communication Breakdown  
Human Factors : Fatigue  
Human Factors : Situational Awareness  
Human Factors : Human-Machine Interface  
Human Factors : Training / Qualification  
Human Factors : Time Pressure  
Communication Breakdown.Party1 : Flight Crew  
Communication Breakdown.Party2 : ATC

## **Person : 2**

Reference : 2  
Location Of Person.Aircraft : X  
Location In Aircraft : Flight Deck  
Reporter Organization : Air Carrier  
Function.Flight Crew : Flight Engineer / Second Officer  
Qualification.Flight Crew : Multiengine  
Qualification.Flight Crew : Flight Engineer  
Qualification.Flight Crew : Instrument  
Qualification.Flight Crew : Flight Instructor  
Qualification.Flight Crew : Air Transport Pilot (ATP)  
Qualification.Flight Crew : Commercial  
Experience.Flight Crew.Total : 5300  
ASRS Report Number.Accession Number : 920878  
Human Factors : Time Pressure  
Human Factors : Situational Awareness  
Human Factors : Training / Qualification  
Human Factors : Fatigue  
Human Factors : Confusion  
Human Factors : Communication Breakdown

## **Events**

Anomaly.Aircraft Equipment Problem : Less Severe  
Anomaly.Deviation - Altitude : Crossing Restriction Not Met  
Anomaly.Deviation - Procedural : Clearance  
Detector.Person : Flight Crew  
Detector.Person : Air Traffic Control  
Were Passengers Involved In Event : N  
When Detected : In-flight  
Result.General : None Reported / Taken

## **Assessments**

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

## **Narrative: 1**

Inbound to SWF we received a route change and a crossing restriction simultaneously. The crossing restriction was to cross 35 NM southwest of the LHY VOR at FL180. We were using newly installed EFBs which required extra time and effort to properly tune, identify, and navigate to the re-route that was issued. Once LHY was tuned and identified we discovered that the DME was erratic and indicating that we were flying away from a VOR, not toward the LHY VOR (indicating approximately 166 NM outside of the VOR). Shortly after that the DME became inoperative on both DME receivers. As we were attempting to determine our distance to LHY, New York Center asked us what our rate of descent was. We replied that we had a descent rate of 4,000 FPM. New York asked us again what our rate of descent was as we descended through approximately FL200. As we descended through FL190 we were given "descend and maintain 13,000". Then New York Center gave us a frequency change, at which point the pilot not flying said we were still not receiving DME from LHY and asked the ATC Controller how far from LHY we were. The Controller replied 14 NM. Although there was never verbal mention of missing the crossing restriction, it was apparent that the restriction was not complied with when given the information on our distance by the Controller as we switched frequencies. Human Performance Considerations: 1. Fatigue of the pilot flying after flying all night. 2. Unfamiliarity with the northeast nav aids and using new EFB equipment in the aircraft. 3. Failure to obtain distance from the VOR in a timely manner. 4. Failure to increase the rate of descent because of a loss of situational awareness due to erroneous and/or inoperative DME on the LHY VOR.

## **Synopsis**

Fatigue, lack of familiarity with the area, and the newly installed EFB contributed to the failure of a B727 flight crew to comply with an ATC crossing restriction on descent.

## Time / Day

Date : 201011  
Local Time Of Day : 0601-1200

## Place

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

## Environment

Flight Conditions : VMC

## Aircraft

Reference : X  
Aircraft Operator : Air Carrier  
Make Model Name : 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 : Flight Deck  
Reporter Organization : Air Carrier  
Function.Flight Crew : Pilot Flying  
Experience.Flight Crew.Total : 7500  
Experience.Flight Crew.Last 90 Days : 90  
Experience.Flight Crew.Type : 175  
ASRS Report Number.Accession Number : 919714  
Human Factors : Fatigue

## Events

Anomaly.Deviation - Procedural : Published Material / Policy  
Anomaly.Deviation - Procedural : FAR  
Detector.Person : Flight Crew  
When Detected : Pre-flight  
Result.General : Work Refused

## Assessments

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

## **Narrative: 1**

This is a fatigue report. I had awakened at very early [hour] and commuted down to my base to be in position for my morning short call assignment. I had been at the airport all day long and had been fighting a cold. In the evening, I received a phone call from the crew desk saying they had a late night departure that I was legal for. I was already exhausted from being at the airport all day and did not expect to be called that late into my duty period, that anything after that should have gone to the afternoon short call pilot. I told him I was not fit to fly that late after being on duty for that long and the fatigue I was experiencing. I would have been departing 12 hours and 41 minutes after I started on duty.

## **Synopsis**

An A320 pilot on reserve duty in the morning was called for a trip departing late in the evening and because of illness and fatigue refused the trip.

## **Time / Day**

Date : 201011  
Local Time Of Day : 1201-1800

## **Place**

Locale Reference.Airport : SLLP.Airport  
State Reference : FO  
Relative Position.Angle.Radial : 305  
Relative Position.Distance.Nautical Miles : 4  
Altitude.MSL.Single Value : 15500

## **Environment**

Flight Conditions : VMC  
Ceiling : CLR

## **Aircraft : 1**

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

## **Aircraft : 2**

Reference : Y  
ATC / Advisory.Tower : SLLP  
Make Model Name : Any Unknown or Unlisted Aircraft Manufacturer

## **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 : 919528  
Human Factors : Confusion  
Human Factors : Communication Breakdown  
Human Factors : Training / Qualification  
Communication Breakdown.Party1 : Flight Crew  
Communication Breakdown.Party2 : ATC

## **Person : 2**

Reference : 2  
Location Of Person.Aircraft : X  
Location In Aircraft : Flight Deck  
Reporter Organization : Air Carrier  
Function.Flight Crew : Pilot Not Flying  
Function.Flight Crew : Relief Pilot  
Qualification.Flight Crew : Air Transport Pilot (ATP)  
ASRS Report Number.Accession Number : 919726  
Human Factors : Fatigue  
Human Factors : Confusion  
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 : First Officer  
Qualification.Flight Crew : Air Transport Pilot (ATP)  
ASRS Report Number.Accession Number : 919722  
Human Factors : Confusion  
Human Factors : Communication Breakdown  
Human Factors : Situational Awareness  
Communication Breakdown.Party1 : ATC  
Communication Breakdown.Party2 : Flight Crew

### **Events**

Anomaly.ATC Issue : All Types  
Anomaly.Conflict : NMAC  
Detector.Automation : Aircraft RA  
Detector.Person : Flight Crew  
When Detected : In-flight  
Result.Flight Crew : Took Evasive Action

### **Assessments**

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

### **Narrative: 1**

We were cleared for the ILS Z approach to Runway 10, as we passed the PAZ VOR outbound we began our descent from the initial approach altitude of 18,000 FT to 15,000 FT. At approximately 4 miles from the VOR, on the outbound leg, traffic popped up and was observed on TCAS by the First Officer. We weren't able to get a visual since the aircraft was almost directly below us. We were descending at approximately 800 to 1,000 FT per minute. I started to level our aircraft at approximately 15,500 FT. At this point the other aircraft started a rapid climb in our direction. Within a couple of seconds we got an R/A from our TCAS commanding a climb. I immediately disconnected the auto pilot and auto throttles and pitched up so as to keep the aircraft in the green on the vertical speed indicator. There were 2 green dots at the top of the indicator, the rest was red. I

used max power and had to peg the VSI (6,000 FPM) to out climb the threat. The aircraft was still converging at [such] a rate that we all were anticipating contact. The aircraft came within 200 FT of our underbelly. Once we determined the aircraft was no longer a threat I leveled our aircraft at approximately 19,500 FT, performed a descending 360 degree turn to get back to the initial approach altitude, and then completed the ILS approach. We never saw the other aircraft.

## **Narrative: 2**

On initial approach we received a TCAS resolution advisory to climb for conflicting traffic. We were cleared the ILS Z Runway 10 approach. We received advisory on outbound leg passing PAX VOR while descending from 18,000 FT to 15,000 FT at approximately 16,000 FT. Autopilot/auto throttles were both disengaged and we performed a max angle/power climb to green VVI indicator range to clear the threat. We climbed to approximately 19,500 FT to clear the conflict aircraft. We were in VMC conditions and the conflict aircraft came within 200 FT of our aircraft, however, it was never spotted. We were never advised of any other aircraft in the area. Additionally, ATC communications was intermittent. Approach was re-initiated and completed successfully without any further conflicts.

## **Narrative: 3**

After an all night flight to La Paz, Bolivia, we found ourselves in the Andes mountain range (pilots on oxygen) cleared for the ILS ZULU Runway 10. CAVOK. Radio communication with ATC (Approach and Tower) was very spotty, in fact 10 minutes prior to the incident, while descending over the highest terrain, the crew found themselves [out of] communication with ATC for about 5 minutes on all frequencies. Initial descent was given to FL200; usually an initial descent to 18,000 is given. Flight was NOT advised of any traffic in the area, by Approach or Tower. We were given a step down from FL200 to 18,000 and on a procedure turn outbound cleared for the approach by Tower. We were passing through about 16,300 FT at 160 KTS when I noticed traffic on the TCAS coming from behind. I went from the 20 mile scale to the 5 mile scale on the TCAS. Around 15,700 FT the traffic went from a white to yellow annunciation (Traffic/Traffic Annunciation was heard) and the aircraft appeared directly beneath us. At 15,500 FT, the traffic went from yellow to red and an R/A to climb/climb accompanied with several expletives from the flight crew. Captain initiated an immediate/non-hesitant, maximum power climb following the command of the R/A. I also communicated with ATC that we were in the climb responding to an R/A. ATC had no response. The response to the R/A had little effect; in fact the infringing aircraft was now 200 FT directly underneath us. IT SEEMED AS IF THE APPROACHING AIRCRAFT WAS ATTEMPTING TO RAM US! Following the climb directive by the TCAS system was NOT going to avoid a collision as the intruding aircraft was under us and climbing faster than we were. The Captain, doing what he had to do to avoid a collision, in a maximum power climb, on oxygen, after flying all night, at 150 KTS executed a right turn in an attempt to get away from the aircraft under us. The Relief Pilot, who was initially in his seat, seat belt on, on oxygen, came out of his seat, and off oxygen to look out of the left rear cockpit window to try to assist in the avoidance of the intruding aircraft. Passing through approximately 19,500 FT, we were clear of conflict. Now came time for the Captain to regain control and airspeed of the aircraft, as well as situational awareness of the mountainous terrain around us. I told ATC that we had experienced a near mid-air collision (ATC seemed to understand these words). The ATC Controller immediately began communication with the intruding aircraft asking their position and DME. She also asked if they had

seen us. I am fluent in Spanish, and overheard the conversation. It became apparent that the Controller had no idea where the intruding aircraft was and the pilot of the intruding aircraft claimed that he had us in sight (his gun-sights/pipper MAYBE!). It took us approximately 4,000 FT of maneuvering to avoid a collision. We were again cleared for the approach, we made a 360 degree circling turn to lose altitude gained during the escape maneuver, configured the aircraft into a stable approach scenario and landed at a 13,313 FT elevation airport as if it was another day at the office. Upon landing in SLLP we informed ATC via radio that we had experience a NMAC. The Controller was trying to convince us that we had not since the departing aircraft had us in sight. The Controller seemed surprised when I asked for the tail number and aircraft type for the near miss report we were going to file. The ATC Controller said she did not have that information and wanted to know our altitude and DME from the PAZ VOR when the incident occurred. We elected NOT to give the Bolivian ATC any information via the radio, rather to provide them information via the company in the reporting process. We left SLLP for the next leg and upon parking the aircraft the flight crew noticed a Bolivian Government Aircraft, with Government of Bolivia markings (large corporate type jet) parked next to us. The pilot was standing in front of the aircraft talking to some folks in suits. This jet was surrounded, in a circle, with at least 20 armed soldiers of the Bolivian Army. We were told by an unnamed local source that they thought this was the aircraft we had the near miss with.

## **Synopsis**

Flight crew arriving SLLP and cleared for the ILS Z Runway 10 approach reports TCAS RA and NMAC with aircraft climbing under them on the PAZ 305 radial. A maximum rate climb and maneuvering eventually results in a clear of conflict TCAS announcement.

## Time / Day

Date : 201011  
Local Time Of Day : 0001-0600

## Place

Locale Reference.Airport : DFW.Airport  
State Reference : TX

## Environment

Flight Conditions : VMC

## Aircraft

Reference : X  
ATC / Advisory.Tower : DFW  
Aircraft Operator : Air Carrier  
Make Model Name : B737-700  
Crew Size.Number Of Crew : 2  
Operating Under FAR Part : Part 121  
Flight Plan : IFR  
Mission : Passenger  
Flight Phase : Initial Approach  
Airspace.Class B : DFW

## 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 : 919170  
Human Factors : Physiological - Other  
Human Factors : Troubleshooting  
Human Factors : Confusion  
Human Factors : Fatigue

## Events

Anomaly.Deviation - Track / Heading : All Types  
Anomaly.Deviation - Procedural : Clearance  
Detector.Person : Flight Crew  
Were Passengers Involved In Event : N  
When Detected : In-flight  
Result.Flight Crew : Became Reoriented  
Result.Flight Crew : Executed Go Around / Missed Approach

## Assessments

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

## **Narrative: 1**

I was flying the approach into DFW. ATC assigned us 17R which was a change from the expected runway, so we loaded the ILS to 17R in LNAV and changed to the 17R ILS frequencies. ATC called traffic to us at 11:00 clock (we were on an angling right base). Looked but couldn't see it. ATC asked if we could see the airport (we could) and issued a visual approach clearance. ATC instructed us to keep our speed up to the final approach fix. Autopilot was on and connected to LNAV. We kept looking to the left for the traffic and when I looked to the right I saw the left and right runway and disconnected the autopilot to turn final. As I turned final, we both noticed that we were right of the LNAV track. We checked the ILS raw data and it also showed us right of course. We checked for proper LNAV points, ILS frequencies and identifiers which were all correct. Next we asked the Tower to verify the ILS was operating and were told it checked OK. Tower also verified the ILS frequency and assigned runway. Now we are about 3 miles from landing and my eyes were telling me to land on the right runway while my instruments are telling me to land on the left. This doesn't make sense and I do a go-around to give us time to discover the problem. As we go around, I look out the left window and see the passenger terminal. This is not where it should be and after cleaning up and doing checklists, I look at the airport diagram again and it dawns on me that I have lined up on the 18R/L side of the airport which explains the conflicting information. On downwind, we reload the LNAV and re-verify everything. On approach, we carefully follow the instruments to final and make an uneventful landing in 17R. This event occurred primarily because I followed my visual input first and didn't rely on my navigation aids enough. Other factors included: The airport is brightly lit on both sides of the 18 complex which made me think the terminal was to my right. It is fairly dark to the east of the 17s. The runway lights are difficult to see until almost lined up on final. This was obvious on our second approach as we crossed the 18 centerlines but still couldn't see the 17s. The traffic call and the requirement to keep our speed up added distraction. End of the day fatigue and VMC weather lead to less vigilance. As years of training have taught me, always use the instruments to verify where the aircraft is. While this saved me from landing on the wrong runway, I could have used it much more effectively (and sooner) to avoid lining up on the wrong runway. At airports where there are runways separated by large areas, I will review how many runways will be crossed prior to turning final. This is especially important on VMC arrivals with visual approaches.

## **Synopsis**

Following a late runway change at DFW the flight crew of a B737-700 lined up visually with the wrong runway. The discrepancy between their visual picture and the ILS/NAV displays alerted them to make a go around and reorient themselves.

## Time / Day

Date : 201011

## Environment

Weather Elements / Visibility : Turbulence

## Aircraft

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

## Person

Reference : 1  
Location Of Person.Aircraft : X  
Location In Aircraft : Flight Deck  
Reporter Organization : Air Carrier  
Function.Flight Crew : Captain  
Function.Flight Crew : Pilot Flying  
Qualification.Flight Crew : Air Transport Pilot (ATP)  
Experience.Flight Crew.Total : 25000  
ASRS Report Number.Accession Number : 918702  
Human Factors : Fatigue  
Human Factors : Situational Awareness

## Events

Anomaly.Other  
Detector.Person : Flight Crew  
Were Passengers Involved In Event : N  
Result.General : None Reported / Taken

## Assessments

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

## Narrative: 1

This report concerns a trans-Pacific flight assignment including back to back all night pairings (body clock), two un-augmented inter-Asia segments and 36 hours of flight time. We started the sequence with a 12.7 hour actual flight, single augmented with an hour plus delay on the front end. When we arrived we cabbed to downtown for an additional 1.5 hours on the body before rest. The first internal Asia leg is all night, un-augmented. The return leg is daylight-but all night body time-followed by another 1.5 hour cab ride downtown. The [opportunities for] rest

were insufficient to maintain any alertness particularly on the last leg. Both the First Officer and I experienced periods of unintended sleep while at the controls. No amount of coffee or mental discipline was sufficient to stay awake!!! This is unsafe and made more unsafe by requiring: 1. Over 12 hours single augmented on the first leg. 2. Two un-augmented legs on the back side of the clock with long preflight awake hours. 3. Over 8 extra hours of "duty time" in CABS!!! Rework this trip before someone gets hurt. No one in the cockpit for the last 6 hours was at their peak to respond to irregular situations. We weren't even able to stay awake the whole time in the seat.

## **Synopsis**

An international Captain described an onerous flight sequence in the Pacific he believed to be unsafe due to cumulative and predictable fatigue.

## Time / Day

Date : 201011  
Local Time Of Day : 1201-1800

## Place

Locale Reference.Airport : ZZZZ.Airport  
State Reference : FO  
Relative Position.Distance.Nautical Miles : 20  
Altitude.MSL.Single Value : 10000

## Environment

Flight Conditions : VMC  
Light : Daylight  
Ceiling : CLR

## Aircraft

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

## Component

Aircraft Component : Pneumatic Valve/Bleed Valve  
Aircraft Reference : X  
Problem : Improperly Operated

## 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 : 917804  
Human Factors : Situational Awareness  
Human Factors : Distraction  
Human Factors : Human-Machine Interface  
Human Factors : Training / Qualification

## Person : 2

Reference : 2  
Location Of Person.Aircraft : X  
Location In Aircraft : Flight Deck  
Reporter Organization : Air Carrier  
Function.Flight Crew : Pilot Not Flying  
Function.Flight Crew : First Officer  
ASRS Report Number.Accession Number : 918588  
Human Factors : Distraction  
Human Factors : Situational Awareness  
Human Factors : Human-Machine Interface  
Human Factors : Fatigue  
Human Factors : Training / Qualification

## Events

Anomaly.Deviation - Procedural : Published Material / Policy  
Detector.Automation : Aircraft Other Automation  
Detector.Person : Flight Crew  
When Detected : In-flight  
Result.Flight Crew : Took Evasive Action  
Result.Flight Crew : Became Reoriented

## Assessments

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

## Narrative: 1

Passing 10,000 FT MSL during climbout we got an intermittent altitude warning horn. I leveled off, we put on our oxygen masks, and noticed both bleed air switches were turned off. We selected manual pressurization, turned on the bleed switches and closed the outflow valve to get the pressurization under control. When the cabin pressurization returned to normal, auto was selected on the pressurization and the climb was continued without incident. The First Officer stated during the post flight the night prior he turned off both bleed switches. Neither of us caught it during preflight or other checklists.

## Narrative: 2

On climbout thru 10,000 FT got the cabin altitude warning horn. Donned O2 masks, noticed both engine bleed switches in the off position. Turned one bleed on, switched to manual pressurization, closed the outflow valve and waited for the cabin to stabilize and descend back down below 10,000 which only took about 1 minute. Turned on the remaining bleed, and went back to auto pressurization. It occurred to me that on the inbound flight I must have inadvertently turned off the engine bleed switches. It was a long duty day with almost 8 hours of flying. On the next morning, I didn't catch the switch position on the origination preflight.

## Synopsis

A B737-800 First Officer turned the engine bleeds off after arrival the night before and forgot to open them the next morning during preflight. After climbing through 10,000 FT the CABIN ALTITUDE WARNING sounded, the bleeds were opened and pressurization restored.

## Time / Day

Date : 201010  
Local Time Of Day : 1801-2400

## Place

Locale Reference.Airport : ZZZ.Airport  
State Reference : US  
Altitude.MSL.Single Value : 3300

## Aircraft

Reference : X  
Aircraft Operator : Air Carrier  
Make Model Name : ATR 42  
Crew Size.Number Of Crew : 2  
Operating Under FAR Part : Part 121  
Flight Plan : IFR  
Flight Phase : Climb

## Component : 1

Aircraft Component : Ice/Rain Protection System  
Aircraft Reference : X  
Problem : Failed

## Component : 2

Aircraft Component : Autoflight 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 : 916923  
Human Factors : Fatigue  
Human Factors : Human-Machine Interface  
Human Factors : Workload

## Events

Anomaly.Aircraft Equipment Problem : Critical  
Anomaly.Deviation - Altitude : Excursion From Assigned Altitude  
Anomaly.Inflight Event / Encounter : Weather / Turbulence  
Anomaly.Inflight Event / Encounter : Loss Of Aircraft Control

Detector.Person : Flight Crew  
When Detected : In-flight  
Result.General : None Reported / Taken

## **Assessments**

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

## **Narrative: 1**

During climb out, while operating in icing conditions with level 3 icing systems engaged, the aileron/elevator horn anti-icing system faulted and was not recoverable. At this same time the AFCS [Auto Flight Control System] was not operating normally. The First Officer (PF) complained of controllability issues and an unfamiliar vibration was detected. The QRH checklist directed us to leave icing conditions, so the crew decided to turn back to our departure airport. During vectoring for ILS 27 an altitude deviation occurred of approximately 500 feet. The PIC assumed control of the aircraft for the remainder of the flight. During the ILS approach, with the AFCS restored, and after determining free and clear control of aircraft controls, the autopilot was engaged. The aircraft subsequently experienced an altitude loss. The PIC disconnected the autopilot, recovered to ILS profile and subsequently landed on Runway 27. Operating in icing conditions with horn heat inoperative probably caused control issues during the approach and airspeed decay may have led to the altitude loss. It is possible that a severe ice encounter occurred. Because of very gusty winds and icing conditions, and feeling fatigued. The PIC decided to engage the autopilot during approach because a difficult crosswind landing was imminent, with reported visibility of 1 mile due to blowing snow.

## **Synopsis**

The loss of aileron and elevator horn anti-icing system while operating in moderate icing conditions likely contributed to an ATR-42 flight crew's failure to maintain cleared altitudes while returning to their departure airport.

## Time / Day

Date : 201010  
Local Time Of Day : 1801-2400

## Place

Locale Reference.ATC Facility : ZZZZ.ARTCC  
State Reference : FO  
Altitude.MSL.Single Value : 18000

## Environment

Flight Conditions : Marginal

## Aircraft

Reference : X  
ATC / Advisory.Center : ZZZZ  
Aircraft Operator : Air Carrier  
Make Model Name : B747-400  
Crew Size.Number Of Crew : 4  
Operating Under FAR Part : Part 121  
Flight Plan : IFR  
Mission : Passenger  
Flight Phase : Cruise  
Flight Phase : Parked

## Component : 1

Aircraft Component : Navigational Equipment and Processing  
Aircraft Reference : X  
Problem : Failed

## Component : 2

Aircraft Component : PFD  
Aircraft Reference : X  
Problem : Failed

## Person

Reference : 1  
Location Of Person.Aircraft : X  
Location In Aircraft : Flight Deck  
Reporter Organization : Air Carrier  
Function.Flight Crew : Pilot Flying  
Function.Flight Crew : Captain  
Qualification.Flight Crew : Air Transport Pilot (ATP)  
Experience.Flight Crew.Total : 25000  
Experience.Flight Crew.Last 90 Days : 60  
Experience.Flight Crew.Type : 6000  
ASRS Report Number.Accession Number : 916413

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

## Events

Anomaly.Aircraft Equipment Problem : Critical  
Anomaly.Flight Deck / Cabin / Aircraft Event : Smoke / Fire / Fumes / Odor  
Anomaly.Deviation - Procedural : Maintenance  
Anomaly.Deviation - Procedural : Published Material / Policy  
Anomaly.Inflight Event / Encounter : Weather / Turbulence  
Anomaly.Inflight Event / Encounter : Fuel Issue  
Detector.Person : Flight Crew  
Were Passengers Involved In Event : N  
When Detected : In-flight  
When Detected : Taxi  
When Detected : Aircraft In Service At Gate  
Result.General : Declared Emergency  
Result.Flight Crew : Landed in Emergency Condition  
Result.Air Traffic Control : Provided Assistance

## Assessments

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

## Narrative: 1

Captain reviewed flight plan and discussed several issues with Dispatch. Several maintenance issues were noted regarding hydraulic leaks, APU electrical problems, and electrical issues with the aircraft that were deferred. Aircraft was load restricted because of approaching typhoon at our destination because of necessary fuel reserves. Aircraft was delayed at the gate due to an inoperative heading select knob on the mode control panel (MCP). Maintenance was trying to defer the MCP unit and that was not acceptable. Captain rejected the aircraft which became an issue with Maintenance personnel. The autopilot could not have been controlled in the heading select mode. That does not comply with SOP. Just prior to taxi another delay occurred trying to get final weights and we were told it was a "customer service problem". The Captain shutdown engines abeam the gate waiting for ACARS report to conserve fuel which almost became critical for arrival fuel at our destination. It is almost the rule now that aircraft are dispatched with some kind of maintenance issues or failures requiring additional stress issues for the crew. The flight went normally until about 3 hours out when there was an electrical problem with Bus #4 which then was isolated. About three hours later approaching our

destination and the outer edge of the typhoon, Captain briefed crew and seated flight attendants early and prepared cabin for turbulence and high crosswind landing with windshear. Just approaching the arrival fix, descending to 18,000 FT, the crew heard popping noises at the right instrument panel and saw sparking from behind co-pilots PFD (Primary Flight Display) screen and smoke started to fill the cockpit. Both Co-pilot's screens went blank. Crew performed immediate checklist items for smoke from QRC checklist. Smoke continued to increase until Captain instructed a Relief Pilot to pull the right PFD and ND (Navigation Display) Circuit Breakers; which took time to find in the dark. The circuit breaker for the affected system had failed to pop out! The Captain ordered the Smoke Evacuation Handle on the overhead to be opened which was very hard to operate. He then instructed First Officer to declare an emergency with Center and request an immediate landing. The flight attendants were informed and an immediate turning high speed steep descent was performed to intercept the ILS to 07L. As a result of actions by the Relief First Officer- smoke gradually dissipated and although a high speed approach was performed while encountering windshear and crosswinds the aircraft made a smooth landing and quickly turned at an exit right in front of the airport fire station where fire trucks were standing by. The flight attendants and passengers were ordered to remain seated after stopping. We then taxied normally to gate where the Captain contacted Operations, Dispatch and Flight Duty Manager. Maintenance issues on all B747-400s are chronic problems! Items are broken and deferred on all flights and just resetting circuit breakers and ground checking equipment doesn't constitute thorough maintenance. Aircraft are shown to be "legal" to fly by paperwork standards for the release to the pilots, but are marginal in this respect. It should be automatic after an emergency of this nature for crews to be released from additional flying duty! This flight crew handled this emergency after 16 hours of flight, flying all night, minimum rest in the aircraft, and being 13 hours off normal body clock time. The Captain and the flying First Officer were then expected to continue flying in the typhoon region for three more segments for five more days. Adequate rest looks legal in the computer and meets FAA requirements, but is, in practical terms, inadequate. The checklist in the aircraft defining circuit breakers locations for quick activation is inadequate or missing. A QRC style circuit breaker location list should be in the cockpit listing all locations for equipment that will be disabled in alphabetical order and should be available for immediate use. It is impossible to call Maintenance Control under these circumstances and definitely impossible for crews to go looking through manuals to accomplish the appropriate procedure. Also, the aircraft needs to have an electronic checklist installed and brought up to today's standards. The fire/smoke checklist should be shown completely on the QRC without having to go to an additional checklist in the manual. This is a critical procedure and almost impossible to find in manual with the oxygen mask and smoke goggles on.

## **Synopsis**

A B747-400 Captain believes he is observing a general deterioration in the maintenance standards at his airline, this report dealt with a detailed report of failed navigation displays, smoke and fire, fuel concerns and flight into a typhoon after 16 plus hours on duty.

## Time / Day

Date : 201010  
Local Time Of Day : 1201-1800

## Place

Locale Reference.Airport : ZZZ.Airport  
State Reference : US  
Altitude.AGL.Single Value : 1200

## Environment

Weather Elements / Visibility : Rain  
Light : Daylight  
Ceiling.Single Value : 1300

## Aircraft

Reference : X  
ATC / Advisory.Tower : ZZZ  
Aircraft Operator : Air Carrier  
Make Model Name : B737 Undifferentiated or Other Model  
Crew Size.Number Of Crew : 2  
Operating Under FAR Part : Part 121  
Flight Phase : Initial Approach  
Airspace.Class B : ZZZ

## Component

Aircraft Component : Flight Director  
Aircraft Reference : X  
Problem : Improperly Operated

## 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)  
Experience.Flight Crew.Total : 16000  
Experience.Flight Crew.Last 90 Days : 150  
Experience.Flight Crew.Type : 10000  
ASRS Report Number.Accession Number : 916382  
Human Factors : Human-Machine Interface  
Human Factors : Situational Awareness  
Human Factors : Fatigue

## Events

Anomaly.ATC Issue : All Types  
Anomaly.Deviation - Procedural : Clearance  
Anomaly.Inflight Event / Encounter : Weather / Turbulence  
Anomaly.Inflight Event / Encounter : Unstabilized Approach  
Detector.Person : Flight Crew  
When Detected : In-flight  
Result.Flight Crew : Executed Go Around / Missed Approach

## **Assessments**

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

## **Narrative: 1**

Flight was nearly 2 hours late due to a scheduled late report. Captain had 8 hours minimum rest due to dead heading delays the day before. First Officer indicated he himself didn't sleep well the night before. On approach, weather went below forecast with moderate rain. Airport was landing with tailwind landing components nearly at the limits. Aloft, there was a quartering tailwind of approximately 20 KTS. On base leg, we were held high due to crossing traffic underneath. This put us well above GS outside of the marker. Approach offered to give us another box pattern because "we didn't start down right away" (we were configuring) but we were high due to proximity traffic which delayed clearance. Nonetheless we felt we could recover within the IMC stabilized approach criteria, so we continued. However, on the assigned heading the crosswind pushed us north of the localizer and most likely the FD didn't fully center, so it never coupled. This led to a full-scale deflection at about 1,200 FT AGL. We elected to execute the missed approach and Tower gave us a turn to 190 and a climb to 2,000 FT. During the missed approach the FD kept attempting to descend us to 1,500 FT (the initial approach altitude.) This forced us to fly raw data while we cleared the FD so we could re-arm the system from scratch. There were minor altitude deviations while we conducted the missed raw data. At first we should have requested another runway. After landing, we saw departing aircraft already taxiing for the opposite runway. Then when we were kept high for crossing traffic, we shouldn't have attempted to "salvage" a busted approach. During the go-around it's possible the TOGA switch didn't get pressed, which may have been a cause of the erroneous FD commands. All of the above wasn't helped by the fact I was on minimum rest.

## **Synopsis**

B737 Captain reports a late descent clearance from Approach Control in IMC with a strong quartering tailwind. The approach becomes unstabilized and the crew elects to go around without pushing the TOGA button. This requires the pilot flying to ignore the flight director and attempt to fly raw data missed approach causing minor altitude deviations.

## Time / Day

Date : 201010  
Local Time Of Day : 1801-2400

## Place

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

## Environment

Flight Conditions : VMC  
Light : Daylight

## Aircraft

Reference : X  
Aircraft Operator : Air Carrier  
Make Model Name : B767-300 and 300 ER  
Crew Size.Number Of Crew : 3  
Operating Under FAR Part : Part 121  
Flight Plan : IFR  
Mission : Cargo / Freight  
Flight Phase : Parked  
Route In Use.Other

## 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 : 915712  
Human Factors : Fatigue  
Human Factors : Physiological - Other  
Human Factors : Situational Awareness

## Events

Anomaly.Flight Deck / Cabin / Aircraft Event : Illness  
Detector.Person : Flight Crew  
Were Passengers Involved In Event : N  
When Detected : Taxi  
Result.General : Flight Cancelled / Delayed  
Result.Flight Crew : Returned To Gate

## Assessments

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

## **Narrative: 1**

Our flight time for the day was a bit more than 10+00 while duty time was approximately 13+30. When I got to the hotel, I changed clothes and worked out. When I returned to my room, I showered and laid down to take a nap. When I awoke, the local time was approximately XA30. I watched T.V. and had some fruit for dinner. I was unable to sleep, so I remained awake until about XK00 in the morning, and ordered room service for breakfast. I had 2 poached eggs with toast and grapefruit juice. After breakfast, I showered and then laid down to sleep prior to our departure from the hotel which was set for XT00 local time. My rest was sporadic. I would sleep for a while and then wake up. I would then start the process again, and this continued up to my wake up time. We left at XT00 and proceeded to the airport. After arriving at the aircraft, the preflight was completed and I returned to the cockpit to prepare for our departure. We completed our checklists, received our ATC clearance, and completed our preparations for departure. As we taxied out, I began to feel sick at my stomach. I also began to feel tired. When the sickness and fatigue did not pass, I decided to return to the gate as this was the safest course of action. As we returned to the gate, the feelings of fatigue and sickness continued. When we arrived at the gate we secured the aircraft. After this had been accomplished, the sickness began to subside a bit and I went to change my shirt as we prepared to go back to the hotel. I left the aircraft, walked down the stairs, retrieved my luggage and boarded the crew bus to the terminal in order to clear Immigration. We then took the car to the hotel. During our ride to the hotel I still felt tired and sick at my stomach but it was not as intense as it had been earlier. After checking into my room I ate a candy bar from the mini bar and almost immediately began to feel better. I showered and laid down and slept for approximately five hours when I received a call to set up a physical here. I accomplished the physical and later flew back to the U.S on commercial flights. In retrospect, I believe that I had a low blood sugar event which was compounded by a lack of quality sleep. The breakfast I had was likely not enough to carry me through the day, and I had skipped lunch so that I might get a bit more rest. This was a mistake that I will not make again. Also, I believe that I slept too long during my nap, and this kept me awake through the evening thereby disrupting my sleep cycle for the coming day.

## **Synopsis**

Following a stressful layover which provided neither rest nor proper nourishment, the Captain of a B767-300 returned to the departure gate when he became ill during taxi for takeoff.

## Time / Day

Date : 201010  
Local Time Of Day : 1801-2400

## Place

Locale Reference.Airport : AVL.Airport  
State Reference : NC  
Altitude.MSL.Single Value : 5500

## Environment

Flight Conditions : IMC  
Weather Elements / Visibility : Thunderstorm  
Weather Elements / Visibility : Turbulence  
Light : Night

## Aircraft

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

## Person : 1

Reference : 1  
Location Of Person.Aircraft : X  
Location In Aircraft : Flight Deck  
Reporter Organization : Air Carrier  
Function.Flight Crew : First Officer  
Function.Flight Crew : Pilot Flying  
Qualification.Flight Crew : Commercial  
ASRS Report Number.Accession Number : 913773  
Human Factors : Fatigue  
Human Factors : Confusion  
Human Factors : Training / Qualification

## Person : 2

Reference : 2  
Location Of Person.Aircraft : X  
Location In Aircraft : Flight Deck  
Reporter Organization : Air Carrier  
Function.Flight Crew : Captain

Function.Flight Crew : Pilot Not Flying  
Qualification.Flight Crew : Air Transport Pilot (ATP)  
ASRS Report Number.Accession Number : 913774  
Human Factors : Situational Awareness  
Human Factors : Confusion  
Human Factors : Training / Qualification

## Events

Anomaly.Deviation - Altitude : Crossing Restriction Not Met  
Anomaly.Deviation - Track / Heading : All Types  
Anomaly.Deviation - Procedural : Published Material / Policy  
Anomaly.Deviation - Procedural : Clearance  
Detector.Person : Air Traffic Control  
When Detected : In-flight  
Result.Flight Crew : Returned To Clearance  
Result.Air Traffic Control : Issued New Clearance  
Result.Air Traffic Control : Issued Advisory / Alert

## Assessments

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

## Narrative: 1

We were on our last leg of the day, flying into AVL. It was leg 5 for me on 11th hour of duty, leg 7 for the Captain almost 14 hours of duty; night; raining; non-towered; mountainous terrain airport; with an apparently confusing approach. Not a good setup. We were expecting the ILS 34, and I briefed and set up the approach. We were filed direct SUG direct AVL. Around SUG, we were told to descend to 7,000 FT. We were told maintain 7,000, then given direct Broad River (BRA) and cleared for the ILS 34 approach. In looking at the approach plate, the minimum altitude between SUG and BRA is 5,500 FT and the minimum altitude at BRA is 4,400 FT. No where on the plate does it say you must cross BRA at a higher altitude and use the procedure turn to descend. On the plate for ILS 16 in AVL it does depict this and is clear about it. So we began our descent so that we could cross BRA at 4,400 and continue on the ILS 34. ATC informed us we had busted altitude and to climb back to 7,000 until crossing BRA. At this time, we were not expecting to do a procedure turn, and the FMS was setup to continue the approach from BRA, so at 7,000, we turned inbound, knowing that there was no way we could land with a stabilized approach from this altitude. The Captain informed ATC, and she told us that we were expected to perform the procedure turn on the approach. We made a left 180 and then she vectored us out back towards SUG to send us in again. This second time, we made the procedure turn and landed uneventfully. To the best of my memory, I do not recall the Controller clearing us for the "full" approach. I think that would have made a difference in how we handled the situation. There are two prongs to that. If she did say cleared for the FULL approach, neither of us heard or acknowledged it. I think that is attributable to fatigue issues having to do with such a late flight, after a long day, with many factors complicating the flight. Also, she should have challenged the Captain's read back when he did not acknowledge the full approach and clarified that we needed to perform the procedure turn. If she did not say cleared for the "full" approach but we still should have done it, then we need to review phraseology and what the

Controllers' commands do mean. It is possible that operating in the usual towered environment, we become so used to "cleared for the approach" meaning straight in when you get the localizer, when technically something else may be expected. In conclusion, I think we need to be highly vigilant to pinpoint any operations that may be out of the ordinary and be prepared to check and double check what we are doing. I think being aware of our physical limits when approaching fatigue and how they will affect our performance is also very important. Lastly, we need to be sure we understand what ATC expects of us, and clarify it with them whenever necessary.

## **Narrative: 2**

We were cleared to the BRA NDB (on the ILS 34/AVL) at 7,000 FT. We were proceeding direct the NDB, and were with 10 miles of the navaid, when ZTL gave the instruction 'maintain 7,000 to BRA, cleared for the ILS 34 to KAVL'. We looked at this as a crew and determined that, since the approach plate indicated that we could cross BRA at 4,400 FT, that a descent was in order, otherwise we would have been too high to make a stabilized approach to Runway 34. ZTL questioned our descent and instructed us to climb back up to 7,000 FT, and again cleared us for the approach. We stated that we would not be able to make the required descent rate and asked ZTL what they wanted us to do. It was at this point that ZTL suggested that we enter the published hold and descend that way. (They never stated to us 'cleared for the FULL approach, which would have flagged us to do the procedure turn.) We were apparently expected to know that this was the standard procedure for this approach into this airport at night, but none of this information is stated on the approach plate. The plate does not make the procedure turn mandatory, hence the confusion. The Controller could have used the standard phraseology of 'Cleared for the Full Approach', but didn't. How this situation could have been avoided. 1) Additional information on the approach plate. 2) Use of more standardized phraseology by the Controller. 3) Crew should have been more questioning of ATC with apparently conflicting instructions. 4) After a 13 HR duty/almost 8 hour-7 leg day, being dispatched/scheduled to a mountainous airport at night is simply unsafe and the culmination of a fatigue inducing day. A less fatiguing day might have mitigated this event.

## **Synopsis**

Air Carrier flight crew reports confusion over the requirement to fly the holding pattern procedure turn from SUG to the ILS 34 approach at AVL.

## Time / Day

Date : 201010  
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 : Night

## Aircraft

Reference : X  
Aircraft Operator : Air Carrier  
Make Model Name : Regional Jet 200 ER/LR (CRJ200)  
Crew Size.Number Of Crew : 2  
Operating Under FAR Part : Part 121  
Flight Phase : Parked

## Person

Reference : 1  
Location Of Person.Aircraft : X  
Location In Aircraft : Flight Deck  
Reporter Organization : Air Carrier  
Function.Flight Crew : Pilot Flying  
Function.Flight Crew : Captain  
Qualification.Flight Crew : Air Transport Pilot (ATP)  
ASRS Report Number.Accession Number : 912360  
Human Factors : Fatigue  
Human Factors : Situational Awareness

## Events

Anomaly.No Specific Anomaly Occurred : All Types  
Detector.Person : Flight Crew  
When Detected : In-flight  
Result.General : None Reported / Taken

## Assessments

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

## Narrative: 1

This is an incredible amount of flying for one day. We blocked 9 flights with approximately 6 hours 4 minutes of flying in 20-30 minute increments with no breaks. And this was Day 6 on duty for me. Our pilots are flying these schedules day in day out for up to 6 days in a row. After about 6 legs, I could sense my alertness and my reactions to our changing environments was beginning to deteriorate. In addition, I could sense that I my attention to detail was compromised; in other words, sloppiness. It's an alarming feeling as I play "Monday Morning QB". My First Officer and I talked about ourselves being tired, but we "pushed" on through to get the job done. Our schedules are failing to provide the highest standard of safety. Our job demands the highest standard of professionalism, alertness and safety. It's as if our pilots are covering the flying that could easily and safely be assigned to 2 pilots. I suggest that we reduce the maximum number of flights a day to 6. After 6, the "chain" of events that leads to mistakes, accidents, incidents and oversights tightens and the likelihood for error increases dramatically. A simple snapshot means that our pilots are flying essentially 36-48 flights a week. Six to nine legs a day 6 days in a row. Over a two week period that is approximately 72 flights! Please listen to the pilots.

## **Synopsis**

CRJ200 Captain describes fatigue inducing six to nine leg duty days with up to six days on duty in a row.

## Time / Day

Date : 201009  
Local Time Of Day : 0601-1200

## Place

Locale Reference.ATC Facility : ZZZ.ARTCC  
State Reference : US  
Altitude.MSL.Single Value : 20000

## Environment

Flight Conditions : VMC  
Light : Daylight

## Aircraft

Reference : X  
ATC / Advisory.Center : ZZZ  
Aircraft Operator : Air Carrier  
Make Model Name : Dash 8-200  
Crew Size.Number Of Crew : 2  
Operating Under FAR Part : Part 121  
Flight Plan : IFR  
Mission : Passenger  
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)  
Experience.Flight Crew.Total : 4000  
Experience.Flight Crew.Last 90 Days : 175  
Experience.Flight Crew.Type : 1700  
ASRS Report Number.Accession Number : 911467  
Human Factors : Fatigue  
Human Factors : Time Pressure  
Human Factors : Workload  
Human Factors : Situational Awareness

## Events

Anomaly.Deviation - Procedural : Weight And Balance  
Anomaly.Deviation - Procedural : Published Material / Policy  
Anomaly.Inflight Event / Encounter : Fuel Issue  
Detector.Person : Flight Crew  
Were Passengers Involved In Event : N

When Detected : In-flight  
Result.General : None Reported / Taken

## **Assessments**

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

## **Narrative: 1**

While conducting our flight our fuel supply fell short of what was planned. We experienced no delays that would explain the shortage. We took off with fuel well above the minimum required and while in cruise realized it would be necessary to drop our planned alternate airport to land with legal fuel reserve. There was a head wind. I don't know if it was greater than the wind used to calculate the burn. We flew at FL200 instead of planned FL220. However, not even accounting for the additional fuel to climb to FL220 the difference in cruise burn was only 58 LBS, this is an insignificant difference. The fuel calculations were wrong. What is most disturbing is that my First Officer remarked that he had experienced this before at least a few times and other coworkers I have spoken with have also experienced the same thing. This has happened to me before with the fuel being short to even a much greater extent. On another recent flight we had an even greater margin of fuel reserve above the minimum required on the release. We experienced no delays that would account for the shortage. In fact our alternate was our departure airport so when we learned that we would not be able to land at our destination due to weather we were already closer to our alternate than if we would have had to go all the way to the destination airport and then go to the alternate. Our required 45 minute burn after reaching our farthest alternate was recently raised by the company to a higher amount and we did not even have enough for the previous required fuel reserve. There were thunderstorms that developed between us and our alternate that should have been taken into consideration and obviously were not. We changed our alternate to an airport which was very close and landed there. I was questioned a few days later by my Chief Pilot and did not tell him about the shortage. I believe that, based on past experience, if I had discussed it with him all possible efforts would be made to somehow twist the scenario into making this my fault. I was fatigued due to the very long work days that we experienced and was being rushed to try and get the flight out on time and we had weight and balance issues. Otherwise I may have had the time and foresight to take more fuel even though it was not required by the release. I believe that fuel planning is being intentionally manipulated to allow more passengers and bags on the aircraft. I have personally seen manipulations of the on time reports and believe that the company I work for conducts immoral and illegal practices on many levels and in many if not all of its departments on a regular basis.

## **Synopsis**

A Dash 8 Captain reported instances of inaccurate planned fuel loads resulting in shortfalls of reserves enroute despite the lack of any obvious reasons for increased fuel burn. Reporter believes the fuel planning shortfalls are the result of conscious acts on the part of the company to maximize payloads.

## Time / Day

Date : 201009  
Local Time Of Day : 0601-1200

## Place

Locale Reference.ATC Facility : ZZZ.ARTCC  
State Reference : US  
Altitude.MSL.Single Value : 26000

## Environment

Flight Conditions : VMC  
Weather Elements / Visibility.Visibility : 5  
Light : Daylight  
Ceiling.Single Value : 5000

## Aircraft

Reference : X  
ATC / Advisory.Center : ZZZ  
Aircraft Operator : Air Carrier  
Make Model Name : A300  
Crew Size.Number Of Crew : 2  
Operating Under FAR Part : Part 121  
Mission : Cargo / Freight  
Airspace.Class A : 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 : Pilot Flying  
Function.Flight Crew : Captain  
Qualification.Flight Crew : Air Transport Pilot (ATP)  
Experience.Flight Crew.Total : 15000  
Experience.Flight Crew.Last 90 Days : 70  
Experience.Flight Crew.Type : 2500  
ASRS Report Number.Accession Number : 911075  
Human Factors : Confusion  
Human Factors : Fatigue  
Human Factors : Troubleshooting

## Person : 2

Reference : 2  
Location Of Person.Aircraft : X  
Location In Aircraft : Flight Deck  
Function.Flight Crew : First Officer  
Function.Flight Crew : Pilot Not Flying  
Experience.Flight Crew.Total : 6000  
Experience.Flight Crew.Last 90 Days : 100  
Experience.Flight Crew.Type : 1000  
ASRS Report Number.Accession Number : 911086

## Events

Anomaly.Aircraft Equipment Problem : Critical  
Detector.Automation : Aircraft Other Automation  
Detector.Person : Flight Crew  
When Detected : In-flight  
Result.General : Maintenance Action  
Result.Flight Crew : Diverted  
Result.Flight Crew : Landed As Precaution  
Result.Aircraft : Equipment Problem Dissipated

## Assessments

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

## Narrative: 1

Ran normal checklists and departed uneventfully. Climbing out of FL255 both packs tripped. Leveled the aircraft at FL260 and advised ATC. Complied with ECAM and could not restore packs. Checked cabin altitude, which was at 4.5K and climbing at 500 fpm. Noted that pressure on bleed manifold was zero. Since cabin was climbing while level, coordinated descent with ATC and were initially cleared to FL180. At FL180 coordinated with Dispatch and Maintenance Control to inform them of our situation. During coordination, pack number one came back online. Soon later, pack number 2 came online. Solicited input from Dispatch and Maintenance Control. Discussed possible options/solutions. Since we could not determine what caused the packs to trip, we jointly agreed to divert in lieu of continuing over the ocean. Approaching parking, on taxi in, FO noted APU was on, and questioned whether he had turned it on after landing. This was in part due to having repeatedly turned on the APU immediately after landing all week at destination (they do not hook up ground power) and because of the intensity/time compression typically experienced in such events. FO advised Captain and Maintenance of this possibility while reviewing the situation. Although we agreed this was the most likely cause of the pack trips, since neither of us could definitively say whether it was on or not during the flight, Maintenance was compelled to investigate. ON THE GROUND: Maintenance changed engine # 1 and #2 start selector relay. Upon engine start, with all switches verified in the correct position, neither pack would come on line. Shut down aircraft. Maintenance did a full, hard shutdown and restart of the airplane. Second attempt: Started engines and Packs would not come online. Coordinated on headset with Maintenance to accomplish multiple resets of the packs, engine bleeds, and APU bleed. Packs would not come on line. A new part ordered and installed. Next day: Flew uneventfully to destination. On climb out for the return flight, noted audible surge from packs. Turned pack 1 off and surge

stopped. Continued flight on pack 2. Logbook write up. Recent events at cargo airlines have created a heightened sense of awareness. Given this and rapid development of this situation, we cannot be sure what caused the packs to trip. Further, both the crew and Maintenance Control were inclined to troubleshoot this problem on the ground rather than in the air, since no obvious cause could be found. It is possible that further in-flight troubleshooting may have revealed the cause one way or the other. Lastly, it is noteworthy that both crew members felt tired on the day in question due to poor sleep for the past the past two nights caused by noise in the hotel. If real-time, in-flight Aircraft Health and Monitoring Data is available to Maintenance Control, including switch positions, in-flight warnings, etc, this data must be included in ground/flight communication to enhance the effectiveness of coordination, especially if that data will hasten a remedy or aid in an emergency.

## **Synopsis**

A300 flight crew experienced a dual pack trip climbing out of FL255 which cannot be reset. During descent, while coordinating with Maintenance, both packs came back on the line. The crew elected to divert and discovers after landing that the APU may have been running in flight.