ASRS Database Report Set

Maintenance Reports

Report Set Description	A sampling of reports from aircraft maintenance personnel.
Update Number	31.0
Date of Update	January 31, 2019
Number of Records in Report Set	50
Number of New Records in Report Set	50
Type of Records in Report Set	For each update, new records received at ASRS will displace a like number of the oldest records in the Report Set, with the objective of providing the fifty most recent relevant ASRS Database records. Records within this Report Set have been screened to assure their relevance to the topic.

National Aeronautics and
Space Administration

Ames Research Center
Moffett Field, CA 94035-1000

TH: 262-7

MEMORANDUM FOR: Recipients of Aviation Safety Reporting System Data

SUBJECT: Data Derived from ASRS Reports

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

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

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

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

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

B Hooey

Becky L. Hooey, Director
NASA Aviation Safety Reporting System

CAVEAT REGARDING USE OF ASRS DATA

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

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

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

Report Synopses

ACN: 1598809 *(1 of 50)*

Synopsis
Air carrier Maintenance Technician reported improperly shipping HAZMAT unserviceable parts.

ACN: 1594584 *(2 of 50)*

Synopsis
Maintenance Technician reported inadvertently shipping Hazmat parts in Non-Hazmat container.

ACN: 1593470 *(3 of 50)*

Synopsis
Air carrier Maintenance Technician reported Hazmat aircraft parts were incorrectly packaged and shipped following an aircraft field service repair.

ACN: 1589615 *(4 of 50)*

Synopsis
CRJ-900 Mechanic reported avionics equipment was not properly reinstalled following previous maintenance action.

ACN: 1587204 *(5 of 50)*

Synopsis
B737 Captain reported that during taxi the flight deck crew was informed that flames were seen coming from an engine.

ACN: 1586782 *(6 of 50)*

Synopsis
Air Carrier Maintenance Technician reported a personnel lift safety rail failure caused damage to aircraft.

ACN: 1586779 *(7 of 50)*

Synopsis
CRJ200 Maintenance Technician reported an APU fire was observed during aircraft tow.

ACN: 1586541 *(8 of 50)*

Synopsis
B717 Maintenance Technician reported conflicting procedures resulted in autoland test not being performed prior to aircraft departure.

ACN: 1585177 *(9 of 50)*

Synopsis

CRJ-900 Captain reported the aircraft was refused because the corrective action taken and explanation by Maintenance was unacceptable.

ACN: 1585076 *(10 of 50)*

Synopsis

B777 Captain reported refusing the aircraft due to flight control imbalance.

ACN: 1584477 *(11 of 50)*

Synopsis

Air Carrier maintenance person reported Company advised maintenance procedure does not require misplaced tool to be located prior to aircraft departure.

ACN: 1583783 *(12 of 50)*

Synopsis

Air carrier tug driver reported a ground conflict with an aircraft on the taxiway, necessitating rapid braking.

ACN: 1582884 *(13 of 50)*

Synopsis

An observer reported that Ham Radio Antennas are blocking a water tower obstruction light.

ACN: 1582639 *(14 of 50)*

Synopsis

Air carrier Maintenance Technician reported misleading maintenance documentation made it difficult to positively identify the maintenance status related to an Airworthiness Directive.

ACN: 1582635 *(15 of 50)*

Synopsis

Maintenance Technician reported that an A320 part was found in the area where maintenance had replaced the nose wheel.

ACN: 1582634 *(16 of 50)*

Synopsis

Maintenance person reported that many B737's have been found to have broken flight control cables.

ACN: 1580761 *(17 of 50)*

Synopsis

Air Carrier Maintenance crew reported an aircraft being towed into a hangar struck a parked truck.

ACN: 1580758 *(18 of 50)*

Synopsis

Airbus maintenance crew reported that the trailing edge flap was damaged when a flight spoiler lock-out not removed prior to retraction.

ACN: 1580753 *(19 of 50)*

Synopsis

B737 Maintenance Technician reported the replacement part was damaged.

ACN: 1580171 *(20 of 50)*

Synopsis

Maintenance Technician reported B737 blew both right main landing gear tires during taxi after an RTO.

ACN: 1580165 *(21 of 50)*

Synopsis

B737-700 Maintenance Technician reported that after replacing the tire they realized a washer was not installed.

ACN: 1579798 *(22 of 50)*

Synopsis

B767 Inspector reported that the external disarm levers on the forward entry door were not red as indicated by the placard.

ACN: 1578867 *(23 of 50)*

Synopsis

Maintenance reported their Supervisor improperly handled an inspection involving a snake on the plane.

ACN: 1577321 *(24 of 50)*

Synopsis

A Maintenance Technician reported that a repair and follow-up procedures were not documented as per company procedure.

ACN: 1577311 *(25 of 50)*

Synopsis

B737 Maintenance crew reported that the Emergency Door Slides were inadvertently installed on the incorrect door.

ACN: 1576121 *(26 of 50)*

Synopsis

B757 Maintenance Controller reported that the maintenance procedures were ambiguous whether to require a test or confirmation flight.

ACN: 1576116 *(27 of 50)*

Synopsis

B737 Maintenance Technician reported that the flight crew ignored the safety requirement while maintenance was working on the aircraft.

ACN: 1574956 *(28 of 50)*

Synopsis

Maintenance Technician reported several HAZMAT shipping errors.

ACN: 1572885 *(29 of 50)*

Synopsis

Maintenance Technician reported that fumes in the cabin has become a difficult issue to resolve.

ACN: 1572589 *(30 of 50)*

Synopsis

Technician reported the FAA found irregularities after the 100 hour inspection on a Cessna 172 was completed.

ACN: 1572443 *(31 of 50)*

Synopsis

Lead Crew Chief reported HAZMAT transported without required HAZMAT documents.

ACN: 1571596 *(32 of 50)*

Synopsis

B777 Maintenance Technician reported that a procedure was signed off by Maintenance that was not accomplished.

ACN: 1571302 *(33 of 50)*

Synopsis

A B777 Maintenance Technician reported that procedures were not followed when the rudder was lubricated.

ACN: 1568973 *(34 of 50)*

Synopsis

CRJ Maintenance Technician reported that when attempting to taxi out of a congested area, the winglet struck the winglet of another aircraft.

ACN: 1568187 *(35 of 50)*

Synopsis

Maintenance Technician reported the pressurization system on a B737 was inoperative in auto and standby modes.

ACN: 1567214 *(36 of 50)*

Synopsis

Airbus A320 Series Technician reported that aircraft maintained by foreign contractor have excessive oil loss due to improper maintenance.

ACN: 1566584 *(37 of 50)*

Synopsis

EMB-500 Maintenance Technician reported the test connections melted on the pitot probes while testing the pitot/static system.

ACN: 1566147 *(38 of 50)*

Synopsis

A maintenance person reported that a move crew towed an aircraft into a gate without marshalers and nearly clipped the wingtip of an adjacent aircraft.

ACN: 1564843 *(39 of 50)*

Synopsis

A maintenance person reported that the aircraft was pressurized when the door was opened, causing the door to explode open sending the mechanic back about 20 feet.

ACN: 1563930 *(40 of 50)*

Synopsis

MD-80 Maintenance Technician reported that Contract Maintenance did not complete the Rudder Travel Unrestricted Warning Light troubleshooting procedure.

ACN: 1563926 *(41 of 50)*

Synopsis

Maintenance Technician reported that the required action was not taken after a lightning strike on a B737 scimitar winglet.

ACN: 1563924 *(42 of 50)*

Synopsis

CRJ-900 Maintenance Supervisor reported that the aircraft was losing hydraulic fluid due to a switch that was installed without an "O" ring.

ACN: 1563016 *(43 of 50)*

Synopsis

Air Carrier Maintenance Technician reported that while performing an operational check on the APU, flames started coming out of the exhaust.

ACN: 1562749 *(44 of 50)*

Synopsis

MD11 Technician reported the maintenance platform was left partially open causing the elevator tip to make contact with the patio door.

ACN: 1557823 *(45 of 50)*

Synopsis

B737 Maintenance Technicians reported the flaps were lowered onto a ladder that was positioned under the trailing edge of the flaps.

ACN: 1557250 *(46 of 50)*

Synopsis

B757 Technicians reported that the spoiler lock was removed causing the spoiler panel to come down onto a Mechanic's hand.

ACN: 1554863 *(47 of 50)*

Synopsis

A Maintenance Technician reported that work accomplished on a turbine disk was not signed-off and it was unknown what procedures were performed.

ACN: 1554612 *(48 of 50)*

Synopsis

AS350 Technician reported that the tail rotor was not properly inspected after it encountered debris from landing in a grassy field.

ACN: 1552733 *(49 of 50)*

Synopsis

Maintenance Technician reported that while towing an EMB-120 the wingtip made contact with another aircraft's wingtip.

ACN: 1552725 *(50 of 50)*

Synopsis

Maintenance Technician reported that a Magnetic Chip Detector (MCD) was found on the engine fan cowl.

Report Narratives

ACN: 1598809 *(1 of 50)*

Time / Day

Date : 201811
Local Time Of Day : 1201-1800

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 : Cruise

Person

Reference : 1
Location Of Person : Company
Reporter Organization : Air Carrier
Function.Maintenance : Technician
Qualification.Maintenance : Airframe
Qualification.Maintenance : Powerplant
ASRS Report Number.Accession Number : 1598809
Human Factors : Situational Awareness

Events

Anomaly.Deviation - Procedural : Published Material / Policy
Anomaly.Deviation - Procedural : Hazardous Material Violation
Detector.Person : Ground Personnel
When Detected : Aircraft In Service At Gate
Result.General : None Reported / Taken

Assessments

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

Narrative: 1

I was sent down-line to ZZZ line to work on tooling. After completed the tooling project, around I saw a lot of unserviceable parts, so I boxed them up and returned them back to ZZZ1. I had also prepped an AED for HAZMAT shipment. But I don't remember noticing the fuel valve while I was boxing the other unserviceable parts. Until today I discovered from my co-worker that I had sent the valve.

Synopsis

Air carrier Maintenance Technician reported improperly shipping HAZMAT unserviceable parts.

ACN: 1594584 *(2 of 50)*

Time / Day

Date : 201811
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 : Commercial Fixed Wing
Operating Under FAR Part : Part 121
Mission : Passenger
Flight Phase : Parked

Person

Reference : 1
Location Of Person : Gate / Ramp / Line
Reporter Organization : Air Carrier
Function.Maintenance : Technician
Qualification.Maintenance : Airframe
Qualification.Maintenance : Powerplant
ASRS Report Number.Accession Number : 1594584
Human Factors : Training / Qualification

Events

Anomaly.Deviation - Procedural : Published Material / Policy
Anomaly.Deviation - Procedural : Hazardous Material Violation
Anomaly.Deviation - Procedural : FAR
Detector.Person : Maintenance
When Detected : Routine Inspection
Result.General : None Reported / Taken

Assessments

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

Narrative: 1

Two mask assemblies were sent for aircraft being worked by Maintenance in ZZZ at Hangar X. A box of unused parts were returned to stores and placed on the serviceable shelf outside the stores area. I shipped the parts back to ZZZ1 which is where ZZZ returns unused parts. I was recently made aware that the mechanics working the aircraft used one of the parts and replaced in the box the used parts which is a Passenger Service Unit and HazMat, and left the tag for parts on the box when they sealed the box before returning the parts to stores. So, I accidentally shipped a HazMat as unregulated on Flight ZZZ to

ZZZ1 under waybill. Under the circumstances, and being made aware of the ability to self-disclose, I thought it best to report this incident and, bring the matter to your attention. I deeply regret the error and apologize for the concern I've caused and will be more vigilant in the completion of my duties. The used hazardous part was misplaced inside a box prelabeled for a non-hazardous part, sealed, placed with serviceable parts, and placed in an area marked for serviceable parts. Open any and all boxes both serviceable and unserviceable and verify what is inside the box matches with both the paperwork and the labeling on the box before proceeding to shipping or receiving.

Synopsis

Maintenance Technician reported inadvertently shipping Hazmat parts in Non-Hazmat container.

ACN: 1593470 *(3 of 50)*

Time / Day

Date : 201809
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 : B737 Next Generation Undifferentiated
Crew Size.Number Of Crew : 2
Operating Under FAR Part : Part 121
Flight Plan : IFR
Mission : Ferry
Flight Phase : Parked

Person

Reference : 1
Location Of Person : Hangar / Base
Reporter Organization : Air Carrier
Function.Maintenance : Technician
Qualification.Maintenance : Powerplant
Qualification.Maintenance : Airframe
ASRS Report Number.Accession Number : 1593470
Human Factors : Situational Awareness
Human Factors : Communication Breakdown
Communication Breakdown.Party1 : Maintenance
Communication Breakdown.Party2 : Ground Personnel

Events

Anomaly.Deviation - Procedural : Published Material / Policy
Anomaly.Deviation - Procedural : Hazardous Material Violation
Detector.Person : Maintenance
When Detected.Other
Result.General : None Reported / Taken

Assessments

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

Narrative: 1

Myself and another mechanic working [aircraft] removed and replaced an actuator, valve, and FMC. The parts removed were drained of any residue fuel and boxed up to be given to stores for transportation. On [date], the parts were given to ramp workers and they were

notified that they were fuel parts. They asked if the parts were to be sent back to ZZZ1 and we said yes. They were loaded into the forward cargo bay along with our tools. The plane flew a ferry flight back to ZZZ1 for reposition. Due to not being aware of the procedures manual regarding shipping HAZMAT items and not being aware of handling the situation at the moment. Verify with [Maintenance Control] or consulate with procedures manual on proper handling of fuel related items.

Synopsis

Air carrier Maintenance Technician reported Hazmat aircraft parts were incorrectly packaged and shipped following an aircraft field service repair.

ACN: 1589615 *(4 of 50)*

Time / Day

Date : 201810
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 : Regional Jet 900 (CRJ900)
Operating Under FAR Part : Part 121
Flight Plan : IFR

Person

Reference : 1
Location Of Person : Company
Reporter Organization : Air Carrier
Function.Maintenance : Lead Technician
ASRS Report Number.Accession Number : 1589615
Analyst Callback : Completed

Events

Anomaly.Deviation - Procedural : Published Material / Policy
Anomaly.Deviation - Procedural : Maintenance
Detector.Person : Maintenance
When Detected : Aircraft In Service At Gate
Result.General : Maintenance Action

Assessments

Contributing Factors / Situations : Chart Or Publication
Contributing Factors / Situations : Company Policy
Contributing Factors / Situations : Equipment / Tooling
Contributing Factors / Situations : Human Factors
Contributing Factors / Situations : Incorrect / Not Installed / Unavailable Part
Contributing Factors / Situations : Manuals
Contributing Factors / Situations : Procedure
Primary Problem : Procedure

Narrative: 1

Aircraft arrived with AFT CARGO SOV [Shut Off Valve] msg on Eicas.

I climbed into avionics bay and JB10 [Junction Box 10] latches were not engaged and were hanging down. Junction box 10 was sitting loosely in its rack. Upon removing PCB2 [Electronic removable Card] the relay K41 had two rubber spacers installed and was not making contact. I also found a walkie-talkie in-between the air conditioning ducts next to

JB10.

Relay K41 in JB10 was not installed properly, found JB10 not latched.

Reseated JB10 and reinstalled new relay in PCB2 K41. Reassembled and latched JB10 properly. Complied ops check of the Aft cargo shut off valve.

complied with operation and functional for JB10 checks In accordance with Manual, no further defects noted.

Callback: 1

Reporter stated that shoddy workmanship was previously performed on the aircraft when it arrived.

Synopsis

CRJ-900 Mechanic reported avionics equipment was not properly reinstalled following previous maintenance action.

ACN: 1587204 *(5 of 50)*

Time / Day

Date : 201810
Local Time Of Day : 1801-2400

Place

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

Environment

Flight Conditions : VMC

Aircraft

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

Component

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

Person

Reference : 1
Location Of Person.Aircraft : X
Location In Aircraft : Flight Deck
Reporter Organization : Air Carrier
Function.Flight Crew : Captain
Function.Flight Crew : Pilot Flying
Function.Maintenance : Other / Unknown
Qualification.Flight Crew : Air Transport Pilot (ATP)
Qualification.Flight Crew : Instrument
Qualification.Flight Crew : Multiengine
Experience.Flight Crew.Type : 3125
ASRS Report Number.Accession Number : 1587204
Human Factors : Troubleshooting

Events

Anomaly.Aircraft Equipment Problem : Critical
Anomaly.Ground Event / Encounter : Other / Unknown
Detector.Person : Ground Personnel
Detector.Person : Air Traffic Control

Detector.Person : Maintenance
When Detected : Taxi
Result.General : Maintenance Action
Result.Flight Crew : Returned To Gate
Result.Air Traffic Control : Provided Assistance

Assessments

Contributing Factors / Situations : Aircraft
Primary Problem : Aircraft

Narrative: 1

On this flight we were scheduled to fly the all nighter from ZZZ to ZZZ1. Everything was going along just fine. We had a normal preflight. On push back we were cleared to start engines and we started both engines with the expectation to have short taxi out. The ground crew had a problem with disconnecting from the aircraft. During the time the ground crew was working on the disconnect we started both engines and actually achieved a five minute warm up. The First Officer, I remember saying, we got our warm up; and we were still being disconnected. The engines achieved a good warm up with no abnormal engine operations before I applied break away thrust.

If fuel or any other combustible was pooled in the engine it should have been cleared during the more than 5 minute idle time. Sometime during taxi out the maintenance personnel from [company] noticed that our Number 1, Left Engine torched a 30 - 40 foot flame out the back of the engine. They said this occurred about 7 times as we taxied out and resembled an after burner. They evidently notified the Ground Controller and we were notified before we got to the parallel taxiway. We had no indications, exceedances or alarms in the cockpit. We immediately held our position and an airport operations vehicle, which was nearby, gave us a visual inspection, almost immediately. They said they had witnessed the flames too and that we now looked normal with no further indications of fire or damage.

We notified [Maintenance] via a phone patch through Dispatch and we were directed to return to the gate. I made a write up of the event. Maintenance inspected the engine and flap area for damage. We left the flaps down on the return to the gate since the Maintenance people told us they wouldn't be surprised if we had damage to them because of the intensity of the flames. None of our passengers or flight attendants noticed any of the torching. I assume because the cleaners leave the window shades down.

Maintenance found nothing unusual with engine, including BITE tests or any damage caused by the torching. They took the plane and did a high powered engine run at the runway. About four hours later, the aircraft was returned to service and we flew it with 3 passengers to be re-crewed. The flight segment continued to ZZZ2. We were out of crew duty and not able to extend.

Maintenance said that this was what they called a Candle Flame Anomaly.
I was pleased the Maintenance took the time to brief me thoroughly on the procedures they did to clear the write up. I was not going to be an engineering pilot with passengers onboard going to ZZZ2.

Synopsis

B737 Captain reported that during taxi the flight deck crew was informed that flames were seen coming from an engine.

ACN: 1586782 *(6 of 50)*

Time / Day

Date : 201810
Local Time Of Day : 0001-0600

Place

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

Aircraft

Reference : X
Aircraft Operator : Air Carrier
Make Model Name : Commercial Fixed Wing
Operating Under FAR Part : Part 121

Person

Reference : 1
Location Of Person.Aircraft : X
Reporter Organization : Air Carrier
Function.Maintenance : Technician
Qualification.Maintenance : Powerplant
Qualification.Maintenance : Airframe
ASRS Report Number.Accession Number : 1586782
Human Factors : Situational Awareness

Events

Anomaly.Ground Event / Encounter : Object
Detector.Person : Maintenance
When Detected : Routine Inspection
Result.General : Maintenance Action
Result.Aircraft : Aircraft Damaged

Assessments

Contributing Factors / Situations : Equipment / Tooling
Primary Problem : Equipment / Tooling

Narrative: 1

Was reported to the supervisor and made aware of issue. While performing work on Aircraft X, and performing [maintenance procedure], removal of electronic module of rudder travel limitation unit, a safety rail was dropped from the lift. The lift has a safety rail that is used while extending platforms from the main lift platform, keeping the mechanic from falling. The rail fell off from the attaching holes and struck the rear fuselage part of the aircraft, leaving a 1 inch in length by 1/8 inch in width gash. Event occurred because of the windy conditions up on the lift during the night. The safety rails have no way to keep themselves from falling all the way off the lift. All lifts that have removable safety rails should have a way of attaching safety rails to the main platform. This way if they come out of the holes where they attach to the moving platforms, they won't fall onto aircraft or personnel under lift.

Synopsis

Air Carrier Maintenance Technician reported a personnel lift safety rail failure caused damage to aircraft.

ACN: 1586779 *(7 of 50)*

Time / Day

Date : 201810
Local Time Of Day : 0601-1200

Place

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

Environment

Light : Dawn

Aircraft

Reference : X
Aircraft Operator : Air Carrier
Make Model Name : Regional Jet 200 ER/LR (CRJ200)
Operating Under FAR Part : Part 121
Flight Phase : Taxi

Component

Aircraft Component : APU
Aircraft Reference : X
Problem : Malfunctioning

Person

Reference : 1
Location Of Person.Aircraft : X
Location In Aircraft : Flight Deck
Reporter Organization : Air Carrier
Function.Maintenance : Technician
Qualification.Maintenance : Airframe
Qualification.Maintenance : Powerplant
ASRS Report Number.Accession Number : 1586779

Events

Anomaly.Aircraft Equipment Problem : Critical
Anomaly.Flight Deck / Cabin / Aircraft Event : Smoke / Fire / Fumes / Odor
Detector.Person : Maintenance
Were Passengers Involved In Event : N
When Detected.Other
Result.General : Maintenance Action

Assessments

Contributing Factors / Situations : Aircraft
Primary Problem : Aircraft

Narrative: 1

While the aircraft was being towed and I received the signal, I started the APU in accordance with CRJ 200 [Maintenance Procedure]. The EGT was around 350 but the RPM only went to 24. [Maintenance personnel] opened the door and told me to shutdown, we have an APU fire. (No fire indication was indicated on displays) I properly shutdown, set brakes, and got out of the aircraft.

Synopsis

CRJ200 Maintenance Technician reported an APU fire was observed during aircraft tow.

ACN: 1586541 *(8 of 50)*

Time / Day

Date : 201810
Local Time Of Day : 1801-2400

Place

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

Aircraft

Reference : X
Aircraft Operator : Air Carrier
Make Model Name : B717 (Formerly MD-95)
Operating Under FAR Part : Part 121
Mission : Passenger
Flight Phase : Parked
Maintenance Status.Maintenance Deferred : N
Maintenance Status.Records Complete : Y
Maintenance Status.Released For Service : Y
Maintenance Status.Maintenance Items Involved : Testing

Component

Aircraft Component : INS / IRS / IRU
Aircraft Reference : X
Problem : Malfunctioning

Person

Reference : 1
Location Of Person : Gate / Ramp / Line
Reporter Organization : Air Carrier
Function.Maintenance : Technician
Qualification.Maintenance : Powerplant
Qualification.Maintenance : Airframe
Experience.Maintenance.Technician : 31
ASRS Report Number.Accession Number : 1586541
Human Factors : Training / Qualification

Events

Anomaly.Deviation - Procedural : Published Material / Policy
Anomaly.Deviation - Procedural : Maintenance
Detector.Person : Maintenance
When Detected : In-flight

Assessments

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

Narrative: 1

The #2 IRU [Inertial Reference Unit] would not align so we replaced the ADIRU [Air Data Inertial Reference Unit] and ADIRU battery. Which fixed the problem. Referenced the maintenance manual procedure after we replaced the parts. Closed the Circuit Breaker. The paperwork tell you to perform ops test the IRU and ops test of air data system. The next steps are to close up the area. It does not tell me to do the auto land test. I found out that I was supposed to do this the next day when we had an IRU problem on [another aircraft].

I questioned why we had to do it on [the other aircraft model] but not a 717. According to the Maintenance Manual. I should have done The Auto Land test on the 717. The B717 maintenance manual never told me perform the test. If the test is required, it should be part of the B717 procedure when I remove and replaced the ADIRU, or at least have a reference to go to the manual for more tests procedures. If I did not encounter the [other aircraft model] issue the next day I would not have known about the B717 issue. If the Auto Land Test is required it should be part of the B717 maintenance manual procedure.

Synopsis

B717 Maintenance Technician reported conflicting procedures resulted in autoland test not being performed prior to aircraft departure.

ACN: 1585177 *(9 of 50)*

Time / Day

Date : 201810
Local Time Of Day : 1801-2400

Place

Locale Reference.Airport : DFW.Airport
State Reference : TX
Altitude.AGL.Single Value : 0

Environment

Light : Dusk

Aircraft

Reference : X
ATC / Advisory.Ramp : DFW
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 : Parked
Maintenance Status.Maintenance Deferred : Y
Maintenance Status.Released For Service : Y
Maintenance Status.Required / Correct Doc On Board : Y
Maintenance Status.Maintenance Type : Unscheduled Maintenance
Maintenance Status.Maintenance Items Involved : Repair
Maintenance Status.Maintenance Items Involved : Inspection

Component

Aircraft Component : Cargo Compartment Blowout Panel
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
Function.Maintenance : Inspector
Function.Maintenance : Technician
Qualification.Flight Crew : Instrument
Qualification.Flight Crew : Multiengine
Qualification.Flight Crew : Air Transport Pilot (ATP)
ASRS Report Number.Accession Number : 1585177
Human Factors : Communication Breakdown
Human Factors : Time Pressure

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

Events

Anomaly.Aircraft Equipment Problem : Less Severe
Anomaly.Deviation - Procedural : Maintenance
Anomaly.Deviation - Procedural : Published Material / Policy
Detector.Person : Flight Crew
When Detected : Pre-flight
Result.General : Maintenance Action
Result.General : Release Refused / Aircraft Not Accepted

Assessments

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

Narrative: 1

During boarding, a Ramp Agent advised my First Officer that the aft cargo L/H blow out panel was sticking out of its containment grate and my Flight Attendant 1 found part of the forward lav's upper track guide screw (bolt) which had fallen off the door. So, I wrote up aft cargo door L/H blowout panel and FWD LAV upper track guide screw which was broken in half. Maintenance arrived and began to thoughtfully address the issues. I was informed by a Line Mechanic that the blow out panel was missing 3 of 4 fasteners and they were checking on if they had another panel in stock. Shortly after that, a Maintenance Foreman or Supervisor showed up and said we're all good, everything is being signed off. I didn't see the new part arrive, so I asked the Foreman if they had brought and installed a new panel. He said, "Yes, we installed the new panel and you're good to go." When I later spoke with the Line Mechanic who actually did the work, he said they had not installed a new part, but had just taped in the old one. So, I found the Foreman and explained to him what was wrong with the old panel (3 missing fasteners) and that reinstalling it wasn't solving the problem. At that point, his story changed and he said they had found the fasteners in the cargo bay and reinstalled them into the panel before taping it up, so once again we are good to go! Then, he left. The remaining line mechanics were completing the paper work for the LAV door repair when I told the one who had done the work in the cargo how fortunate it was that they had found the 3 missing panel fasteners to which he looked befuddled and told me they hadn't found or installed any new fasteners, just taped in the old panel. He said that was why he refused to do the sign off on that job... so the Foreman signed it off.

I called Maintenance Control and asked for Maintenance to reinspect the panel and was told they would do so and then "rub your belly". When Maintenance arrived to reinspect the panel, I was present when he removed the tape and panel which was still missing 3 of its 4 required ball-bearing fasteners. A new panel was ordered and another write-up was requested, which I did.

During the delay, passengers were receiving regular updates and provided a water service. I had also tried to arrange regress to those who wanted off to reset the ground delay clock, but the Station refused to allow only a few off - it had to be all or nothing. When the

new panel was ordered I deplaned all of the passengers.

The part arrived and was installed fairly quickly, so we re-boarded and were preparing to depart when someone attempted to use the forward LAV and the door fell off its upper track again. We found the upper track screw on the floor and it was the exact same dirty one that was broke in half prior to the first repair. For some unknown reason, the broken screw (bolt) was reinstalled on the LAV door, so I wrote it up again. Maintenance came out and determined a new part or whole new door would be required which they said would take at least an hour, so we deplaned all of the passengers a second time.

After the new LAV door was installed, it did not fit well and was scraping metal on metal across the top of the door, making the door hard to open and close, so I asked them to adjust it. They tried, but in the end, said it was as good as it was going to get. The door did open and close just not easily which in my opinion, will probably lead to another upper track screw failure, but it was signed off, so we boarded and finally completed the flight after a 4 hour and 16 minute delay.

There is no doubt in my mind that the Maintenance Foreman lied directly to my face multiple times regarding maintenance that was supposedly performed; that is not acceptable. It was an unsafe act that could have been the first link in the chain of an accident/incident had I not intervened. By trying to save an hour delay, he caused a 4+ hour delay. I was told that this push, push, push, go, go, go, get it out by whatever means possible pressure was common place for that Foreman. I am concerned that his concept of risk management allowed him to reinstall a known defective piece of safety equipment (the pressurization blowout panel), sign it off, and lie about it to the Captain.

Do maintenance correct the first time. Don't falsify maintenance signoffs and don't lie to crew members about the condition of their aircraft.

Synopsis

CRJ-900 Captain reported the aircraft was refused because the corrective action taken and explanation by Maintenance was unacceptable.

ACN: 1585076 *(10 of 50)*

Time / Day

Date : 201810

Place

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

Environment

Flight Conditions : VMC

Aircraft

Reference : X
Aircraft Operator : Air Carrier
Make Model Name : B777 Undifferentiated or Other Model
Crew Size.Number Of Crew : 2
Operating Under FAR Part : Part 121
Flight Plan : IFR
Mission : Passenger
Nav In Use : FMS Or FMC
Nav In Use : GPS
Flight Phase : Taxi
Maintenance Status.Released For Service : Y
Maintenance Status.Required / Correct Doc On Board : Y
Maintenance Status.Maintenance Type : Unscheduled Maintenance
Maintenance Status.Maintenance Items Involved : Repair
Maintenance Status.Maintenance Items Involved : Inspection
Maintenance Status.Maintenance Items Involved : Testing

Component

Aircraft Component : Spoiler 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.Maintenance : Lead Technician
Function.Maintenance : Technician
Qualification.Flight Crew : Instrument
Qualification.Flight Crew : Air Transport Pilot (ATP)
Qualification.Flight Crew : Multiengine
Qualification.Maintenance : Airframe
Experience.Flight Crew.Total : 2855
Experience.Flight Crew.Type : 1758
ASRS Report Number.Accession Number : 1585076

Human Factors : Troubleshooting
Human Factors : Time Pressure

Events

Anomaly.Aircraft Equipment Problem : Less Severe
Anomaly.Deviation - Procedural : Maintenance
Anomaly.Deviation - Procedural : Published Material / Policy
Detector.Automation : Aircraft Other Automation
Detector.Person : Flight Crew
When Detected : Taxi
When Detected : Pre-flight
Result.General : Release Refused / Aircraft Not Accepted
Result.General : Maintenance Action
Result.Flight Crew : Returned To Gate

Assessments

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

Narrative: 1

After Start Checklist (Flaps 5/green & both engines running) Flight Control Check -
- Control wheel rotation full (L) LEFT (with slow 6 count rate of turn) #4 vertical synoptic bar had a gap at top.
- Control wheel rotation full (R) RIGHT (with slow 6 count rate of turn) #11 vertical synoptic bar is normal.

Repeated check with same result. Also used other side MFD to be certain it was not a screen issue. We then looked at MAINT INFO Flight Control page-2. There was an imbalance between #4 & #11. Full L control wheel rotation indicated 1.23 units then 1.24 units in a subsequent check. Full R control wheel rotation indicated 1.56 units.

We called Dispatch via SATCOM and conferenced [Maintenance Control]. Without hesitation [Maintenance Control] suggested to defer and stated that this was not a problem worthy of concern, but rather a synoptic display issue. I asked [Maintenance Control] if he had any numbers or parameters (units of deflection) to compare what we had vs what would be considered normal. He answered no.

I knew, from past study discussion, that the purpose of synoptic display/flight control checks is to view balanced indications. I also was aware that a 'normal' #4 & #11 vertical bar synoptic should not have a space. Therefore, I immediately knew that the [Maintenance Control] response was either mistaken, negligent, or deliberately disingenuous and misleading. A concern for safety or further investigation was clearly not apparent.

I gave [Maintenance Control] an opportunity to provide us with meaningful and helpful information by providing him results of not just the synoptic anomaly but also the discrepancy of the deflection (numerical units) of #4 and the imbalance between #4 & #11. Still, to no avail. Thereafter, I stated that, prior to flight, I wanted a further investigation and dialogue [regarding] the flight control matter on hand.

The plane was ushered to a remote stand where maintenance boarded aircraft. The maintenance team repeated the flight control checks. One mechanic also had a printed manual in his hands. Upon performing the same check several times, the outcome was the same- they viewed exactly the same results we reported.

The lead mechanic was performing the check with [Maintenance Control] apparently on his cell phone and he was speaking and taking directions in English. He then began ramming the flight controls full left apparently to 'pump' a different result. Again, to no avail.

The lead mechanic, after his phone conversation with [Company] maintenance, and after viewing the aforementioned flight control check result, stated that there did not seem to be an issue. The mechanic appeared to have been directed to say this! I state this concern due to his last words on phone, in English, prior to hanging up (apparently with [Company] maintenance), "okay, I will tell him". He then turned to me and said that the checks are normal and within tolerance.

I then glanced over at the manual the other mechanic had in hand and was reading. Interestingly, contrary to what [Maintenance Control] stated, the manual did indeed have numerical parameters for the flight controls. The numbers stated in black and white, as correct parameters, are between 1.39 to 1.77 per the manual he was reading.

Additionally, "SPOILER SYMMETRICAL PAIR 4/11 MAY NOT BE DEFERRED" was a bold headline on a different page.

When I queried the mechanics [regarding] the contradiction in the directions he was told to convey to us vs the parameters we had just read in the manual the entire tone of the situation changed. Now, suddenly, maintenance called [Maintenance Control] again, and finally began the process of fixing the problem.

Quite apparently, based upon the hesitation of the mechanics during their phone conversation, they were under pressure from [Maintenance Control] to undermine our concern for the safety of our ship.

The flight was eventually cancelled due to the flight control condition discussed in this report.

Synopsis

B777 Captain reported refusing the aircraft due to flight control imbalance.

ACN: 1584477 *(11 of 50)*

Time / Day

Date : 201810

Place

Altitude.AGL.Single Value : 0

Aircraft

Reference : X
Aircraft Operator : Air Carrier
Make Model Name : B737 Undifferentiated or Other Model
Crew Size.Number Of Crew : 2
Operating Under FAR Part : Part 121
Flight Phase : Parked
Maintenance Status.Maintenance Items Involved : Repair

Person

Reference : 1
Reporter Organization : Air Carrier
Function.Maintenance : Other / Unknown
ASRS Report Number.Accession Number : 1584477
Human Factors : Communication Breakdown
Communication Breakdown.Party1 : Maintenance
Communication Breakdown.Party2 : Maintenance

Events

Anomaly.Deviation - Procedural : Published Material / Policy
Detector.Person : Maintenance
When Detected : Aircraft In Service At Gate

Assessments

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

Narrative: 1

Per current [maintenance procedure], if a tool cannot be located after an aircraft departs, Maintenance Control will be notified. This procedure could possibly allow the aircraft to depart with tooling left onboard as the inspection is done at a down line station leaving a possibility of a potential incident. We currently have [a large number of] aircraft flying around the system with tools checked out against them. There are no controls in place to monitor tooling checked out against an aircraft or prevent departure of an aircraft with potential tooling left onboard.

Tool check out to release of the aircraft with the ability for override once the aircraft is inspected we would check the aircraft before it departed not after. Another suggestion is

to put a block on the work cards to check for the tooling checked out before releasing the aircraft.

Synopsis

Air Carrier maintenance person reported Company advised maintenance procedure does not require misplaced tool to be located prior to aircraft departure.

ACN: 1583783 *(12 of 50)*

Time / Day

Date : 201810
Local Time Of Day : 1801-2400

Place

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

Environment

Light : Night

Aircraft : 1

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

Aircraft : 2

Reference : Y
ATC / Advisory.Ground : ZZZ
Aircraft Operator : Air Carrier
Make Model Name : Commercial Fixed Wing
Crew Size.Number Of Crew : 2
Operating Under FAR Part : Part 121
Mission : Cargo / Freight
Flight Phase : Taxi

Person

Reference : 1
Location Of Person : Gate / Ramp / Line
Location In Aircraft.Other
Reporter Organization : Air Carrier
Function.Maintenance : Technician
Qualification.Maintenance : Airframe
Qualification.Maintenance : Powerplant
ASRS Report Number.Accession Number : 1583783
Human Factors : Confusion
Human Factors : Distraction
Human Factors : Situational Awareness
Human Factors : Communication Breakdown
Communication Breakdown.Party1 : Maintenance
Communication Breakdown.Party2 : ATC

Events

Anomaly.Conflict : Ground Conflict, Critical
Anomaly.Deviation - Procedural : Clearance
Anomaly.Ground Incursion : Taxiway
Detector.Person : Maintenance
When Detected.Other
Result.Flight Crew : Returned To Clearance
Result.Air Traffic Control : Provided Assistance

Assessments

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

Narrative: 1

I was towing an aircraft from gate to the hangar in ZZZ. After crossing Runway XXL, I was directed to contact Ground Control upon clearing the runway. After clearing Runway XXL on taxiway, I was trying to contact Ground Control; they were busy with radio chatter, so I kept the tug rolling about half speed (approximately 7 mph) waiting for the radio to clear. As I was approaching taxiway to turn left (south) towards the hangar, I looked right (north) then left (south) to make sure taxiway was clear. Both directions appeared clear. At that instant, I looked straight ahead and noticed taxi lights, coming from my right to left. I looked to the right again, around the tugs inside radio's and saw a Aircraft Y almost directly in front of me. I hit the brakes, he hit the brakes, and we both came to a complete stop, clear of each other. I was then contacted by Ground Control to give way to Aircraft Y and turn left and taxi to the hangar.

Nothing was said by the controller about me doing anything incorrectly and nothing was said by the Aircraft Y pilots about anything and we continued on our way. However, I felt like this was too close for comfort due to the fact that the overall night time visibility in the [tug] is so poor I didn't see Aircraft Y that was probably less than 100 ft away.

The VHF com radio's (2) in the ZZZ tug hang extremely low, just forward and to the right in the driver's field of vision. 99.9% of the time we deal with this issue and can avoid problems. As I discovered during this incident, with the perfect storm of bad timing and bad luck, this problem can be extremely dangerous. Not everything in this near incident was the radio's fault, I certainly hold myself mostly responsible, but they certainly caused me not to see the very large and close Aircraft Y. I'd hate to see something else happen due to the radios impeding the tug drivers field of vision. A possible re-arranging of the radios would be extremely helpful to prevent anything from happening in the future.

Synopsis

Air carrier tug driver reported a ground conflict with an aircraft on the taxiway, necessitating rapid braking.

ACN: 1582884 *(13 of 50)*

Time / Day

Date : 201809

Place

Locale Reference.Airport : I19.Airport
State Reference : OH

Aircraft

Reference : X
Make Model Name : No Aircraft

Person

Reference : 1
Location Of Person : Repair Facility
Function.Maintenance : Other / Unknown
ASRS Report Number.Accession Number : 1582884
Analyst Callback : Completed

Events

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

Assessments

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

Narrative: 1

Ham Radios are mounted near the obstruction light on the West Second Street water tower in Xenia, Ohio, next to the Greene County Lewis A Jackson Regional Airport. The 2.4 and 5.8 GHz radio antennas are mounted above the light on a mast that passes up past the light. This cannot help but reduce visibility of the light in some directions. The City of Xenia water treatment division approved this installation. I would not like to see this contribute to an accident.

Callback: 1

The reporter stated that the water tower is not in the path of the airport, but along side of the airport, and has a light indicating an obstruction. The reporter stated that a contractor for the city installed the 2.4 GHz antenna along side the light on the water tower. The reporter also stated that a couple of antennas were installed using the same post as the light is on. The reporter stated that the antennas are well above the light obstructing the light illumination from the air. The reporter stated that the antenna mast is right up against the light causing it difficult to see from any angle.

Synopsis

An observer reported that Ham Radio Antennas are blocking a water tower obstruction light.

ACN: 1582639 *(14 of 50)*

Time / Day

Date : 201810
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 : Commercial Fixed Wing
Operating Under FAR Part : Part 121
Mission : Passenger
Flight Phase : Parked
Maintenance Status.Maintenance Deferred : N
Maintenance Status.Records Complete : N
Maintenance Status.Released For Service : Y
Maintenance Status.Required / Correct Doc On Board : Y
Maintenance Status.Maintenance Type : Scheduled Maintenance
Maintenance Status.Maintenance Items Involved : Repair
Maintenance Status.Maintenance Items Involved : Work Cards
Maintenance Status.Maintenance Items Involved : Inspection

Person

Reference : 1
Location Of Person : Repair Facility
Reporter Organization : Air Carrier
Function.Maintenance : Inspector
Function.Maintenance : Technician
Qualification.Maintenance : Inspection Authority
Qualification.Maintenance : Airframe
Qualification.Maintenance : Powerplant
ASRS Report Number.Accession Number : 1582639
Human Factors : Workload
Human Factors : Communication Breakdown
Communication Breakdown.Party1 : Maintenance
Communication Breakdown.Party2 : Maintenance

Events

Anomaly.Deviation - Procedural : Published Material / Policy
Anomaly.Deviation - Procedural : FAR
Detector.Person : Maintenance
When Detected : Pre-flight
Result.General : Maintenance Action

Assessments

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

Narrative: 1

Aircraft overflew airworthiness directive. A report was completed, and overdue maintenance items were present in the report. Failure to detect AD event due to insufficient data generated from pre-flight report. I confirmed the reason for the lack of data from the report; the documentation from a recent C inspection performed and released on sent back to ZZZ records department did not contain all the data to indicate all the work in the package had been completed. This caused [pre-flight report] to show the items as overdue. A telephone call by the Assistant Director of Maintenance to the company that performed the inspection was successful in having the missing documents sent via FAX to records in ZZZ. [Employee name] was informed of the pending records transfer, and later confirmed to me that she had the documents and that the maintenance was in fact complete. I was unaware that a post check inspection had not been performed as required by company policy at the facility where the inspection was completed. The check package did not contain the form required which would have been a checklist of the steps needed to be completed during the inspection process; this may have been a causative factor in there not having been a check being completed prior to releasing the aircraft from the inspection and subsequent return to service. Replace the program with one that can update maintenance and critical time factors in a more timely manner with bar-code and internet capability across the company spectrum. Without accurate tracking capabilities events like this will occur again. Better training on interdepartmental communications at all levels of the maintenance chain would be a plus factor in reducing erroneous assumptions in aircraft status. The hiring of more inspectors full time, working the floor full time, would aid in reducing the work load. We have four inspectors now but at any given time two are deployed off site, or otherwise not able to be present on the maintenance floor during the busy work cycle. Inspectors are tasked with a multitude of duties that could otherwise be performed by other departments or individuals. Duties that take us away from our primary task, inspecting work being performed on the aircraft, and being available to mechanics working aircraft. There is a dire need for effective supervision on the maintenance floor, and for more mechanics to facilitate work with the current workload.

Synopsis

Air carrier Maintenance Technician reported misleading maintenance documentation made it difficult to positively identify the maintenance status related to an Airworthiness Directive.

ACN: 1582635 *(15 of 50)*

Time / Day

Date : 201810

Place

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

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
Maintenance Status.Maintenance Items Involved : Installation

Component

Aircraft Component : Nose Gear Wheel
Aircraft Reference : X
Problem : Improperly Operated

Person

Reference : 1
Location Of Person : Gate / Ramp / Line
Reporter Organization : Air Carrier
Function.Maintenance : Technician
Qualification.Maintenance : Airframe
Qualification.Maintenance : Powerplant
ASRS Report Number.Accession Number : 1582635
Human Factors : Situational Awareness

Events

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

Assessments

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

Narrative: 1

Approximately 20 minutes after Aircraft X departed, the Ramp Supervisor brought a part to Maintenance Lead Tech and stated they found on ground at gate in the area around nose of aircraft. After seeing the part I called Maintenance Control. I informed him that I had changed the left nose tire and wheel assembly earlier that night and that this part could possibly be from that work. [I] asked him to stop the aircraft when it lands in ZZZ1. [I] looked up part number and gave to him in case needed. All work was performed per maintenance manual. Waiting to hear outcome of inspection in ZZZ1. If part that was found here in ZZZ is indeed missing. Bushing/support is a very loose fit inside the nose wheel axle may need to pin or some sort of way to prevent it from falling out or getting stuck inside of axle nut socket with grease.

Synopsis

Maintenance Technician reported that an A320 part was found in the area where maintenance had replaced the nose wheel.

ACN: 1582634 *(16 of 50)*

Time / Day

Date : 201809

Place

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

Aircraft

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

Component

Aircraft Component : Elevator Control Column
Aircraft Reference : X
Problem : Design
Problem : Malfunctioning

Person

Reference : 1
Location Of Person : Company
Reporter Organization : Air Carrier
Function.Maintenance : Other / Unknown
ASRS Report Number.Accession Number : 1582634
Human Factors : Troubleshooting
Analyst Callback : Attempted

Events

Anomaly.Aircraft Equipment Problem : Critical
Anomaly.Deviation - Procedural : Published Material / Policy
Detector.Person : Maintenance
When Detected : Routine Inspection
Result.General : None Reported / Taken

Assessments

Contributing Factors / Situations : Aircraft
Primary Problem : Aircraft

Narrative: 1

This crew flew this 737 two legs, into ZZZ1 and then into ZZZ, with low elevator forces. I have seen numerous broken flight control cables on our 737 fleet here in ZZZ in the last couple years and as our largest fleet with the largest number of flights, it is unnerving that

our crews are flying these aircraft with flight control discrepancies. Maybe our crews should read up on [past accidents involving control issues].

Synopsis

Maintenance person reported that many B737's have been found to have broken flight control cables.

ACN: 1580761 *(17 of 50)*

Time / Day

Date : 201809
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 : B777 Undifferentiated or Other Model
Operating Under FAR Part : Part 121
Mission : Passenger
Flight Phase.Other

Component

Aircraft Component : Nacelle/Pylon Skin
Aircraft Reference : X
Problem : Improperly Operated

Person : 1

Reference : 1
Location Of Person : Hangar / Base
Reporter Organization : Air Carrier
Function.Maintenance : Technician
Qualification.Maintenance : Powerplant
Qualification.Maintenance : Airframe
ASRS Report Number.Accession Number : 1580761
Human Factors : Time Pressure
Human Factors : Situational Awareness
Human Factors : Distraction
Human Factors : Communication Breakdown

Person : 2

Reference : 2
Location Of Person : Hangar / Base
Reporter Organization : Air Carrier
Function.Maintenance : Technician
Qualification.Maintenance : Powerplant
Qualification.Maintenance : Airframe
ASRS Report Number.Accession Number : 1580762
Human Factors : Situational Awareness
Human Factors : Distraction
Human Factors : Communication Breakdown
Human Factors : Time Pressure

Person : 3

Reference : 3
Location Of Person : Hangar / Base
Reporter Organization : Air Carrier
Function.Maintenance : Technician
Qualification.Maintenance : Powerplant
Qualification.Maintenance : Airframe
ASRS Report Number.Accession Number : 1580767
Human Factors : Situational Awareness
Human Factors : Distraction
Human Factors : Communication Breakdown
Human Factors : Time Pressure

Person : 4

Reference : 4
Location Of Person : Hangar / Base
Reporter Organization : Air Carrier
Function.Maintenance : Technician
Qualification.Maintenance : Powerplant
Qualification.Maintenance : Airframe
ASRS Report Number.Accession Number : 1580765
Human Factors : Situational Awareness
Human Factors : Distraction
Human Factors : Communication Breakdown
Human Factors : Time Pressure

Person : 5

Reference : 5
Location Of Person : Hangar / Base
Reporter Organization : Air Carrier
Function.Maintenance : Technician
Qualification.Maintenance : Powerplant
Qualification.Maintenance : Airframe
ASRS Report Number.Accession Number : 1580764
Human Factors : Situational Awareness
Human Factors : Distraction
Human Factors : Communication Breakdown
Human Factors : Time Pressure

Person : 6

Reference : 6
Location Of Person : Hangar / Base
Reporter Organization : Air Carrier
Function.Maintenance : Technician
Qualification.Maintenance : Powerplant
Qualification.Maintenance : Airframe
ASRS Report Number.Accession Number : 1580763
Human Factors : Situational Awareness
Human Factors : Distraction
Human Factors : Communication Breakdown
Human Factors : Time Pressure

Events

Anomaly.Deviation - Procedural : Published Material / Policy
Anomaly.Deviation - Procedural : Maintenance
Anomaly.Ground Event / Encounter : Vehicle
Detector.Person : Maintenance
When Detected.Other
Result.General : Maintenance Action
Result.Aircraft : Aircraft Damaged

Assessments

Contributing Factors / Situations : Equipment / Tooling
Contributing Factors / Situations : Environment - Non Weather Related
Contributing Factors / Situations : Human Factors
Contributing Factors / Situations : Procedure
Contributing Factors / Situations : Staffing
Primary Problem : Ambiguous

Narrative: 1

While parking aircraft into bay X at ZZZ airport aircraft incurred damage to right engine nose cowl outboard side.

I was wing walking the right side vigilant of any obstacles to the wing tip and the right main gear I quickly noticed the right engine was getting very close to a vehicle parked ahead of it. I hit the alert button on the wands but nothing happened, then in a moment of desperation thinking it was out of range I raised both arms and proceeded to continuously hit the buttons and just watched as the engine plowed unto the truck that was parked.

This was a last minute move that changed in the middle of the original move. The bay was not ready and cleared of all potential obstructions. There was a lot of aircraft movement in the area at the time the incident happened.

I find the bay to be a mess of equipment and there are no clear lines to distinguish if the wings or the engines are clear and it is left up to human judgment. With the quick change of locations the sunset light blaring through the bay I felt overwhelmed with too much for a single person to observe but I didn't realize that until the incident.

There is a line on the floor that I initially thought was a clearance line but only at the end did I realize it is not a clearance line. Actually I am not sure what the line is even for up to now. With all the equipment in the bay I tried to put myself in a position that would keep me in visual contact with the driver and yet still see the wing and engine the other spot would have been under the wing but there is massive amounts of equipment stored there on a regular basis so you can't walk under the wing but only between the wing and the engine if you want to see the driver. This puts me in a poor position and even though I saw the strike coming the wand delays (possibly even wand failure) and timing didn't allow me to prevent this incident.

I feel there should be clearance lines on the floor for engines and wings. There is just too much going on for this to be left up to people to continuously make over the great distances that a 777 covers even if it is just a wing and engine. I feel this type of help would at least give me a head start in preventing this incident. I would also like to see a regular assigned hangar tow safety guy to help out with quick changes that give us very little time to prepare a bay.

Narrative: 2

While towing Aircraft X, we were told to bring the plane to Bay X. Bay X was cluttered we needed to move some equipment and hangar doors so we all pitched in and cleared the bay up it was very hectic as usual with all the action the bay appeared to be cleared up at least my side was good the left side. So we proceeded to bring the plane in with all the equipment under the wings in the normal staging area it can get quite burdensome.

This event occurred because the time frame they expect the moves to be accomplished in without the appropriate marking on the ground to keep the wings and the engines clear of equipment and debris is almost nonexistent.

They need to revamp the hangar with the appropriate marking to keep the equipment out of the way. We should also have the [Crew Chief] present on hangar moves.

Narrative: 3

Moved aircraft to a congested alleyway with outbound traffic and unprepared bay with vehicles and boarding stands in the way struck aircraft with a man lift with no painted markings outlining aircraft engine and providing a safety zone to not park any equipment or vehicles.

The last minute change reassigning aircraft park position, unprepared bay to receive aircraft and the pressure to expedite and clear aircraft in bay so outbound trips could proceed and no properly painted aircraft markings notifying "No Park Zone" so that no one parks in the safe zone.

No proper safety markings identifying clearance area. From the flight deck perspective there was clearance to proceed safely even though I complain about the congested hangar all the time.

[Recommendation would be to] not change aircraft park positions last minute knowing that the aircraft needed to be parked in the hangar for maintenance. Properly paint aircraft safety zones identifying no park areas so no one parks impeding a safe entry into hangar.

Have management or crew chief walk the bay areas before assigning a bay for entry or push back for equipment or vehicles in the way.

Narrative: 4

5 employees were involved in the RH engine strike in Bay X in ZZZ. They hit a lift truck that was supposedly over a clearance line that is not a clearance line in the hangar.

The reason for this occurrence is due to the facts that I as the ZZZ safety rep I have continuously asked to have clearance lines installed in the hangar on the floor for both the engines and the wings. I have as typed this and I have entered this on a safety action log that has gone unaccomplished. I have also complained about clearance lines outside the hangar as well for the engines. Also we need to have extra bodies in this hangar to move planes in and out with all the tools and encroachment going on it is a huge amount of data for a human to process during a move never mind a change in location without the proper preparedness. [Crew Chief] should join in in the move but many times cannot leave the desk for the moves unmanned.

There are many floor markings that are confusing and areas sometimes incorrectly considered clearance line and they are not.

I would like to see clearance lines for the engines and the wings put in place. I would like to see a proactive choice in assigning a tow safety spot in the hangar to allow for hangar guidance and cleanup of the bays in they cannot paint these required lines.

Narrative: 5

We were moving Aircraft X into bay X inside hangar and stopped before entering hangar to move vehicles and a stand then started to move airplane with wing walkers on left and right side of aircraft with very congested hangar I was doing radios in the tug and [Mechanic A] was driving tug I got out of tug to stop tug driver on park line walked up to the front and then was on the front left side of tug and here'd a loud noise and told tug driver to stop immediately with head set on.

There is no hangar lines to tell me if the engines and wings are clear and any lines that are there are poor and covered with an abundant amount of equipment. When we started to tow the plane into the hangar from my perspective the bay looked clear enough to bring in otherwise I would have halted the move. There is on clearance line on the floor that is not a clearance line the vehicle was clear of the line but still was in the way of the engine.

Make sure crew chief, supervisor or manager is present and make sure all clearance lines are painted, clear and hanger is not congested.

Narrative: 6

While towing Aircraft X into ZZZ Hangar Bay X with a lack of clearance lines/signage preventing aircraft ground equipment and service vehicles from encroaching on aircraft engines and wings during move operations in and out of hangar space, right outside engine inlet cowl made contact with service lift truck railing positioned to the right of engine.

My assigned tow crew was given a last moment reposition of our assigned move aircraft, Aircraft X from ZZZ Gate X to Spot Y. I was tug driver and held our aircraft outside of Spot Y awaiting ground crew to guide us in. After a few minutes I checked our crew tablet a saw a change of aircraft position to Bay X. I contacted our crew chief whom confirmed the last moment change. After a revised clearance from ZZZ gate control to reposition Aircraft X to Hangar Bay X, we repositioned aircraft on ramp taxiway for hangar entry and held position awaiting further vehicles and ground stair equipment to be cleared out before entry. 2 live flights were held short of us, now blocking ramp taxiway. ZZZ gate control requested how long we would be after a call from a pilot on one of the live flights.

Once vehicles and ground stairs were clear I was given verbal and visual clearance to proceed into hangar. As we approached final nose position, the TTWS [Tow Team Warning System] sounded off with its lights flashing from a wing walker and verbal shouting from my lead in on our headset. I immediately applied brakes of tug and shuttered to a stop. Aircraft [right hand] engine, [right hand] cowl had made contact with a lift service truck parked far to the right that was concealed by one of the crew trucks summoned to be removed before hangar entry.

My view for hangar entry from tug driving position appeared to be clear before proceeding into the hangar space which is notoriously congested with incorrectly parked vehicles and aircraft ground equipment in hangar bay positions without aircraft sterile zones marked on hangar flooring.

Aircraft engine and wing position markings in ZZZ hangar to keep vehicles and service

equipment from being left and parked or being locked up in encroaching positions to aircraft being moved in and out of hangar space needs to be established and enforced.

Being summoned in a last minute change of aircraft move position to an unprepared hangar space needs to be addressed in a more communicative timely manner. All members of crew were put in rushed demeanor.

Synopsis

Air Carrier Maintenance crew reported an aircraft being towed into a hangar struck a parked truck.

ACN: 1580758 *(18 of 50)*

Time / Day

Date : 201809
Local Time Of Day : 0001-0600

Place

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

Environment

Light : Night

Aircraft

Reference : X
Aircraft Operator : Air Carrier
Make Model Name : Airbus 318/319/320/321 Undifferentiated
Operating Under FAR Part : Part 121
Mission : Passenger
Flight Phase : Parked
Maintenance Status.Maintenance Type : Scheduled Maintenance
Maintenance Status.Maintenance Items Involved : Testing
Maintenance Status.Maintenance Items Involved : Installation

Component

Aircraft Component : Trailing Edge Flap
Aircraft Reference : X
Problem : Improperly Operated

Person : 1

Reference : 1
Location Of Person : Hangar / Base
Reporter Organization : Air Carrier
Function.Maintenance : Technician
Qualification.Maintenance : Airframe
Qualification.Maintenance : Powerplant
ASRS Report Number.Accession Number : 1580758
Human Factors : Communication Breakdown
Human Factors : Situational Awareness
Human Factors : Time Pressure
Human Factors : Workload
Human Factors : Fatigue
Communication Breakdown.Party1 : Maintenance
Communication Breakdown.Party2 : Maintenance

Person : 2

Reference : 2
Location Of Person : Hangar / Base
Reporter Organization : Air Carrier

Function.Maintenance : Other / Unknown
ASRS Report Number.Accession Number : 1580760
Human Factors : Workload
Human Factors : Situational Awareness
Human Factors : Distraction
Human Factors : Time Pressure

Person : 3

Reference : 3
Location Of Person : Hangar / Base
Reporter Organization : Air Carrier
Function.Maintenance : Other / Unknown
Qualification.Maintenance : Airframe
Qualification.Maintenance : Powerplant
ASRS Report Number.Accession Number : 1580759
Human Factors : Workload
Human Factors : Situational Awareness
Human Factors : Communication Breakdown
Human Factors : Time Pressure
Communication Breakdown.Party1 : Maintenance
Communication Breakdown.Party2 : Maintenance

Events

Anomaly.Aircraft Equipment Problem : Less Severe
Anomaly.Deviation - Procedural : Published Material / Policy
Anomaly.Deviation - Procedural : Maintenance
Detector.Person : Maintenance
When Detected.Other
Result.Aircraft : Aircraft Damaged

Assessments

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

Narrative: 1

During installation of right hand #2 spoiler installation it was required to raise flaps to check the clearance of the spoiler to the flap when flaps are up. I was in the flight deck running the flaps and was given go by ground mechanic. I proceeded to raise flaps increment at a time and then during the flap retraction process I was told hold and lower flaps back down. I took them down and shut down hydraulic power and went down to see what had happened. The 2 mechanics were there looking at the flap and found that it was damaged by a spoiler lock left in area.

[We were] tired due to hours awake and pressure to get the job done and aircraft back into service. Always a push with no time and manpower. [We need] manpower and time on aircraft to get jobs done. Scheduling is not planning out proper time for manpower.

Narrative: 2

We were putting in a servo actuator on the right wing one Aircraft X. We had to perform an operational check and check of the dimension on the gap between the flaps and spoiler. Was standing beside [the] r1 door heard a cracking noise, didn't know what it was. Yelled at the mechanic running the flaps to stop and bring them back down immediately. Found the spoiler lockout pin in #1 flap track canoe. Found damage on the leading edge of the flap. Noise was loud due to hydraulic pumps running to operate the flaps and no power in the hangar so we are using a ground power cart.

Narrative: 3

In the process of removing and replacing #1 right spoiler actuator, we punched a hole in the flap. Before moving the flaps, I looked in the flap well and did not see any tools or other FOD in the area we were working in. The task we were working required us to move flaps to the up position to check a gap on the spoiler. When we ran the flaps up, we heard a loud pop. One mechanic immediately told the other to run the flaps back down and turn off hydraulics. We inspected the area and found that the spoiler lock was placed about a foot and a half inboard of the area we were working in and had punched a hole in the flap.

Synopsis

Airbus maintenance crew reported that the trailing edge flap was damaged when a flight spoiler lock-out not removed prior to retraction.

ACN: 1580753 *(19 of 50)*

Time / Day

Date : 201809

Place

Altitude.AGL.Single Value : 0

Aircraft

Reference : X
Aircraft Operator : Air Carrier
Make Model Name : B737-800
Crew Size.Number Of Crew : 2
Flight Phase : Parked
Maintenance Status.Maintenance Type : Unscheduled Maintenance
Maintenance Status.Maintenance Items Involved : Inspection
Maintenance Status.Maintenance Items Involved : Repair

Component

Aircraft Component : Powerplant Fuel Control Unit
Aircraft Reference : X
Problem : Failed

Person

Reference : 1
Location Of Person : Hangar / Base
Reporter Organization : Air Carrier
Function.Maintenance : Technician
ASRS Report Number.Accession Number : 1580753

Events

Anomaly.Aircraft Equipment Problem : Less Severe
Anomaly.Deviation - Procedural : Maintenance
Detector.Person : Maintenance
When Detected : Routine Inspection
Result.General : Maintenance Action

Assessments

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

Narrative: 1

[We] were assigned to Aircraft X to troubleshoot a fuel leak out of #1 Engine. We noticed a fuel leak coming out of Fuel Pressure Relief Valve on the Main Fuel/ Oil Heat Exchanger.

We created a non-routine on ELB [electronic log book] to troubleshoot and [someone else] transferred [the] ELB write-up to a paper write-up with work sheet.

We removed the Servo Fuel Heater per AMM and removed the Main Fuel/Oil heat exchanger per AMM.

We received a new Main Fuel/Oil Heat Exchanger but it was damaged when received, so we turned over to midnight shift.

Synopsis

B737 Maintenance Technician reported the replacement part was damaged.

ACN: 1580171 *(20 of 50)*

Time / Day

Date : 201809

Place

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

Aircraft

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

Component

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

Person

Reference : 1
Location Of Person : Company
Reporter Organization : Air Carrier
Function.Maintenance : Other / Unknown
Qualification.Maintenance : Powerplant
Qualification.Maintenance : Airframe
ASRS Report Number.Accession Number : 1580171

Events

Anomaly.Aircraft Equipment Problem : Less Severe
Anomaly.Ground Event / Encounter : Other / Unknown
Detector.Person : Flight Crew
When Detected : Taxi
Result.General : Flight Cancelled / Delayed
Result.General : Maintenance Action
Result.Aircraft : Aircraft Damaged

Assessments

Contributing Factors / Situations : Aircraft
Primary Problem : Aircraft

Narrative: 1

Aircraft taxied down taxiway after having a rejected takeoff event. Both right main tires burst while taxiing causing heavy damage to gear door and several wing panels. My concern is that the tires bust before the fuse plugs were able relieve the pressure in the tire, putting all those around and in the aircraft in danger.

Synopsis

Maintenance Technician reported B737 blew both right main landing gear tires during taxi after an RTO.

ACN: 1580165 *(21 of 50)*

Time / Day

Date : 201809
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 : B737-700
Crew Size.Number Of Crew : 2
Operating Under FAR Part : Part 121
Flight Plan : IFR
Mission : Passenger
Flight Phase : Parked
Maintenance Status.Maintenance Type : Scheduled Maintenance
Maintenance Status.Maintenance Items Involved : Repair
Maintenance Status.Maintenance Items Involved : Installation

Component

Aircraft Component : Main Gear Wheel
Aircraft Reference : X
Problem : Improperly Operated

Person

Reference : 1
Location Of Person : Company
Reporter Organization : Air Carrier
Function.Maintenance : Technician
Qualification.Maintenance : Powerplant
Qualification.Maintenance : Airframe
ASRS Report Number.Accession Number : 1580165
Human Factors : Time Pressure
Human Factors : Situational Awareness

Events

Anomaly.Aircraft Equipment Problem : Less Severe
Anomaly.Deviation - Procedural : Published Material / Policy
Anomaly.Deviation - Procedural : Maintenance
Detector.Person : Maintenance
When Detected : Routine Inspection
Result.General : Maintenance Action

Assessments

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

Narrative: 1

I was sent to aircraft to perform an [inspection] with another mechanic (Name) and found the #4 Main Landing Gear Tire worn beyond limits, along with a low O2 bottle. The plane had an outbound flight soon after we arrived so we had very little time to perform our check. We serviced the Crew O2 bottle and changed the tire and signed the logbook off in reference to the AMM task. I had no idea that the Washer (Item 15 in reference to AMM 32-XX-XX-XXX-XXX) was not installed with the axle nut. No abnormalities were present to show that the washer was missing, the safeties were installed like normal and hub cap installed.

Synopsis

B737-700 Maintenance Technician reported that after replacing the tire they realized a washer was not installed.

ACN: 1579798 *(22 of 50)*

Time / Day

Date : 201809

Place

Altitude.AGL.Single Value : 0

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
Maintenance Status.Maintenance Type : Scheduled Maintenance
Maintenance Status.Maintenance Items Involved : Inspection

Component

Aircraft Component : Exterior Pax/Crew Door
Aircraft Reference : X

Person

Reference : 1
Location Of Person : Gate / Ramp / Line
Reporter Organization : Air Carrier
Function.Maintenance : Inspector
Qualification.Maintenance : Powerplant
Qualification.Maintenance : Airframe
ASRS Report Number.Accession Number : 1579798

Events

Anomaly.Aircraft Equipment Problem : Less Severe
Anomaly.Deviation - Procedural : Published Material / Policy
Detector.Person : Maintenance
When Detected : Routine Inspection
Result.General : Maintenance Action

Assessments

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

Narrative: 1

Inbound write up for a broken pawl replacement at door 1L. Post maintenance, I was called upon to inspect the installation of the replacement pawl. During a functional check, I noticed the placard on the exterior of the aircraft, just below the handle cut out. It reads, "EXIT HANDLE PRESS RED RELEASE PULL HANDLE PUSH DOOR UP." I generated a Non-

Routing write up, which reads, "Placard below main door handles reads 'EXIT HANDLE PRESS RED RELEASE PULL HANDLE PUSH DOOR.' The external disarm levers below the door handles are 'NOT' red. They have been painted white with red stenciling 'PRESS.' Handle does not match placard." The Aircraft Maintenance Technician resolved the issue. Painted background red with white letters per drawing.

The issue here is that the disarming lever is for anyone, including First Responders to enter the aircraft, without having the Escape Slide deploy while trying to enter the aircraft. Yet the placard calls out to PRESS the "RED" release handle. Anyone not knowing the correct sequence would NOT FIND the red handle. This appears to be an oversight from when the aircraft was painted to its current paint scheme. This affects ALL 767's, all Main Entry Doors. External Dis-Arming levers that need to be repainted to comply with the drawing.

Synopsis

B767 Inspector reported that the external disarm levers on the forward entry door were not red as indicated by the placard.

ACN: 1578867 *(23 of 50)*

Time / Day

Date : 201809
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 : Commercial Fixed Wing
Operating Under FAR Part : Part 121
Mission : Passenger
Flight Phase : Parked
Maintenance Status.Maintenance Type : Unscheduled Maintenance

Person

Reference : 1
Location Of Person : Company
Reporter Organization : Air Carrier
Function.Maintenance : Technician
ASRS Report Number.Accession Number : 1578867
Human Factors : Training / Qualification
Human Factors : Communication Breakdown
Communication Breakdown.Party1 : Maintenance
Communication Breakdown.Party2 : Maintenance

Events

Anomaly.Deviation - Procedural : Published Material / Policy
Anomaly.Deviation - Procedural : Hazardous Material Violation
Detector.Person : Passenger
Were Passengers Involved In Event : Y
When Detected : In-flight
Result.General : Flight Cancelled / Delayed

Assessments

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

Narrative: 1

Aircraft X was pulled out of service for a report from a passenger that a 2 to 3 inch snake crawled across her foot. I received a call later that afternoon from a mechanic assigned to accomplish [the maintenance check] to look for the snake. The mechanic has no knowledge of snakes and the paperwork assigned to do the task does not support anything on that level; I asked him not to go on the aircraft until we could receive some help from someone trained on how to handle snakes in the event that we did find one. I then called

the manager on duty and asked him to try to get a hold of someone on duty at the airport that can help just like we do with pest control. The supervisor on duty took the paperwork from the mechanic and did the job himself, saying; that every [mechanic] refused to accomplish the job. I believe this behavior was dangerous and reckless not only was he putting someone in danger but also himself.

The reason the aircraft was taken out of service was because the write up was taken seriously; the [maintenance check] is a pest control phase inspect and monitor card, the pest that the mechanic was going to look for was out of the normal; we need to put a little more thought on how we approach things of this nature so we can keep ourselves and our passengers safe. Everyday all types of things are brought on board the aircraft without anyones knowledge and our aircraft travel and sit overnight with lots of time for anything to welcome itself on board; in a nutshell we need to ask for the right help when needed no matter how small it appears to be.

Synopsis

Maintenance reported their Supervisor improperly handled an inspection involving a snake on the plane.

ACN: 1577321 *(24 of 50)*

Time / Day

Date : 201809
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 : B737-800
Operating Under FAR Part : Part 121
Mission : Passenger
Flight Phase : Parked

Component

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

Person

Reference : 1
Location Of Person : Company
Reporter Organization : Air Carrier
Function.Maintenance : Technician
Function.Maintenance : Lead Technician
Qualification.Maintenance : Powerplant
Qualification.Maintenance : Airframe
ASRS Report Number.Accession Number : 1577321
Human Factors : Situational Awareness

Events

Anomaly.Aircraft Equipment Problem : Less Severe
Anomaly.Deviation - Procedural : Published Material / Policy
Anomaly.Deviation - Procedural : Maintenance
Detector.Person : Maintenance
When Detected : Routine Inspection
Result.General : None Reported / Taken

Assessments

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

Narrative: 1

I was working as a mechanic when I was assigned to a radio call for possible blade damage to the number 2 engine on [Aircraft X]. When I inspected the damage to blade 13 on initial inspection the blade appeared to be properly addressed per the AMM (Aircraft Maintenance Manual) 72-XX-XX-XXX-XXX-XX. My normal procedure is to check a 30 day history on the AC (aircraft) then contact [Maintenance Control] to determine if the repair had been documented and the follow up FPI (Fluorescent Penetrant Inspection) had been accomplished within the requisite 10 cycles or 25 hours. There was nothing in the AML (Aircraft Maintenance Logbook) or safe for the previous 30 days for [Aircraft X]. I then contacted [Maintenance Control] to have them check the engine log for the Number 2 engine to look for damage noted to blade 13. The [Maintenance Control] technician informed me that the company no longer tracks repairs to blades and told me that if there was a question about whether the blade was addressed properly or not my only recourse was to re-accomplish the AMM. When I asked how they were tracking the FPI for the blade after blending I was informed that if the FPI was deferred per the AMM there would be a [notice] but I would only see it for 30 days after the follow-up and if the FPI was accomplished at the repair there would be no documentation of the repair.

The Company needs to either resume tracking repairs to the engine per the engine log or come up with a new system to track them.

Synopsis

A Maintenance Technician reported that a repair and follow-up procedures were not documented as per company procedure.

ACN: 1577311 *(25 of 50)*

Time / Day

Date : 201809
Local Time Of Day : 0001-0600

Aircraft

Reference : X
Aircraft Operator : Air Carrier
Make Model Name : B737-700
Operating Under FAR Part : Part 121
Mission : Passenger
Flight Phase : Parked
Maintenance Status.Maintenance Type : Scheduled Maintenance
Maintenance Status.Maintenance Items Involved : Installation

Component

Aircraft Component : Escape Slide
Aircraft Reference : X
Problem : Improperly Operated

Person : 1

Reference : 1
Location Of Person : Company
Reporter Organization : Air Carrier
Function.Maintenance : Technician
ASRS Report Number.Accession Number : 1577311
Human Factors : Situational Awareness

Person : 2

Reference : 2
Location Of Person : Company
Reporter Organization : Air Carrier
Function.Maintenance : Technician
ASRS Report Number.Accession Number : 1577312
Human Factors : Situational Awareness

Events

Anomaly.Aircraft Equipment Problem : Less Severe
Anomaly.Deviation - Procedural : Published Material / Policy
Anomaly.Deviation - Procedural : Maintenance
Detector.Person : Maintenance
When Detected : Routine Inspection
Result.General : Maintenance Action

Assessments

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

Narrative: 1

Slide assemblies were removed and placed on jetway floor. At the same time, 5 cleaners showed up to clean the aircraft, and positions may have been disturbed by their traffic. Assemblies were inadvertently re-installed/swapped into wrong positions. Perhaps initiate protocol to prevent cleaners from accessing aircraft while maintenance is being performed (or require them to ask our permission for entry) in cabin/galley areas. Also, perhaps include a sign-off requiring visual confirmation of slide case-to-correct door orientation.

Narrative: 2

Both FWD door slides were removed and placed in the jetway. At that time there were several appearance techs moving about the jetway and aircraft. With all the people moving in and off the aircraft the slides were inadvertently put in the wrong forward positions. I was contacted by my coworker about the situation. And was informed that the problem was fixed by another AMT.

Synopsis

B737 Maintenance crew reported that the Emergency Door Slides were inadvertently installed on the incorrect door.

ACN: 1576121 *(26 of 50)*

Time / Day

Date : 201809

Place

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

Aircraft

Reference : X
Aircraft Operator : Air Carrier
Make Model Name : B757 Undifferentiated or Other Model
Crew Size.Number Of Crew : 2
Operating Under FAR Part : Part 121
Mission : Passenger
Flight Phase : Parked
Maintenance Status.Maintenance Type : Scheduled Maintenance
Maintenance Status.Maintenance Items Involved : Work Cards

Component

Aircraft Component : Pitot-Static System
Aircraft Reference : X

Person

Reference : 1
Location Of Person : Company
Reporter Organization : Air Carrier
Function.Maintenance : Other / Unknown
Qualification.Maintenance : Powerplant
Qualification.Maintenance : Airframe
ASRS Report Number.Accession Number : 1576121
Human Factors : Communication Breakdown
Communication Breakdown.Party1 : Maintenance
Communication Breakdown.Party2 : Maintenance

Events

Anomaly.Deviation - Procedural : Published Material / Policy
Anomaly.Deviation - Procedural : FAR
Detector.Person : Maintenance
When Detected : Routine Inspection
Result.General : None Reported / Taken

Assessments

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

Narrative: 1

Aircraft was undergoing C Check work. Part of the work accomplished was to replace all 4 pitot probes, Captain-First Officer-Auxiliary 1 and Auxiliary 2. There is confusion on what procedure to follow regarding flight requirements after all 4 pitot probes are replaced. During the check, they followed [the] card which directs Maintenance to replace all 4 probes. Nowhere in that document is it stated any "Operational Confirmation" or "Test Flight" is required after the work is performed. The probes are being replaced to improve overall reliability and zero time the probes.

An [Engineering document] was initially written. In this [document] under step 9 it specifically states: If 3 or more pitot probes were replaced as part of this maintenance visit (combination of Operations 1, 2, 3, or 4), then a flight test is required. When accomplishing at a [maintenance base] location, coordinate with the On-Site representatives to schedule the flight test. When accomplishing at all other stations, coordinate with Maintenance Control to schedule the flight test.

The language they use is Flight Test. Based on this information, one could construe that the requirement is a Test Flight after all 4 probes are replaced. It is only Option #1 of 4 but all [options] state the same information under item #9.

GMM (General Maintenance Manual) clearly breaks down what an Operational Confirmation Flight and Test Flight is and what type of crews can fly them. A Test flight requires an Engineering Test Crew (AKA-Flight Standards) to accomplish the flight. This is essentially what the [Engineering document] is stating, however, there is nothing in the JIC that states either of them. An Operational Confirmation flight can be flown by either a "Line Crew" or Engineering Test Crew as this type of flight is not anticipating the use of "NON-NORMAL" procedures. Where an Engineering Test Crew flying a test flight will use non-normal procedures amongst other "test" procedures to assure aircraft operation is within allowable tolerances.

This is critical in the sense of safety what flight and crew type is flying the aircraft and what procedures and systems are being tested. In addition, the GMM has no information regarding Pitot Probe replacement and the requirement for a specific flight type, unlike other work that can drive a Test Flight. Being that the [Engineering document] specifically identified Flight Test in the procedure, the assumption would be that since all 4 probes were replaced, that there is a high potential for system inaccuracies during the first flight after Maintenance and Engineering believes the safest procedure to use is to utilize the Engineering Test Crew under a TEST FLIGHT scenario.

So, the primary issue is that the JIC does not require any type test/operational flight where the [Engineering document] does. Also, nowhere in the JIC does it fall back or ref the EA to review its requirements. Thus, there were multiple emails sent out looking for information on the procedure to use, etc. At the end of my shift, I made a log item to accomplish a Test Flight with an Engineering Test Crew which falls under Group II per the GMM. After my departure, senior leadership sent out multiple emails which further muddied the waters by stating Group II and then Group I test flight. There is no such thing as "GROUP I Test Flight"; a test flight is always a Group II. An operational confirmation flight is a "GROUP I" as it can be flown by a line crew using normal procedures.

We are asking for trouble when Senior Leadership gives EDICTS on procedures that essentially contradict what an engineering document calls for especially when part of email string identifies the [Engineering document] to reference for the direction [Maintenance Control] provides. In the end, my log page was deleted and a new log was generated to accomplish a "GROUP I Test Flight" by another controller. [This is] incorrect nomenclature.

The JIC needs to be updated after review of the [Engineering document] to determine what requirements are to be accomplished before we find ourselves in a situation that may cause an accident or incident. The primary issue is the JIC and [Engineering document] contradiction.

Synopsis

B757 Maintenance Controller reported that the maintenance procedures were ambiguous whether to require a test or confirmation flight.

ACN: 1576116 *(27 of 50)*

Time / Day

Date : 201809

Place

Altitude.AGL.Single Value : 0

Aircraft

Reference : X
Aircraft Operator : Air Carrier
Make Model Name : B737 Next Generation Undifferentiated
Crew Size.Number Of Crew : 2
Operating Under FAR Part : Part 121
Mission : Passenger
Flight Phase : Parked
Maintenance Status.Maintenance Type : Unscheduled Maintenance
Maintenance Status.Maintenance Items Involved : Repair

Component

Aircraft Component : Nose Gear Wheel
Aircraft Reference : X
Problem : Malfunctioning

Person

Reference : 1
Location Of Person : Company
Reporter Organization : Air Carrier
Function.Maintenance : Technician
Qualification.Maintenance : Powerplant
Qualification.Maintenance : Airframe
ASRS Report Number.Accession Number : 1576116
Human Factors : Communication Breakdown
Communication Breakdown.Party1 : Maintenance
Communication Breakdown.Party2 : Flight Crew

Events

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

Assessments

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

Contributing Factors / Situations : Procedure
Primary Problem : Procedure

Narrative: 1

Aircraft X came to the gate with an open log write up that read: NOSE WHEEL VIBRATES AT TAKE OFF MX (maintenance) CHECKED THE NOSE TIRES FOR US. RUMBLE DURING TAXI. VIBRATION ABOVE 120 KT ON TAKEOFF

After following FIM (Fault Isolation Manual) task 32-51-00-810-804 it was determined that with the lack of history and the condition of the tires that that both NLG (Nose Landing Gear) tires would require replacement on the gate. In order to ensure the safety of the aircraft, maintenance and ground personnel the first item in the flight deck is the maintenance safety [tag]. The page prominently displayed on the center pedestal read as follows: AC MX work in progress WARNING: DO NOT TOUCH OR OPERATE ANY SWITCH OR CONTROL WITHOUT FIRST CHECKING WITH THE AIRCRAFT LEAD OR SUPERVISOR!

AT THIS TIME the Aircraft had a BROKEN MRD (Maintenance Release Document). The aircraft was not released from maintenance. Maintenance personnel were preparing the aircraft for a dual NLG tire change IAW (In Accordance With) AMM (Aircraft Maintenance Manual) 32-45-21-400-801. 3 each Downlock devices where installed IAW GMM (General Maintenance Manual). [Work orders] were generated to document the replacement of the NLG tires.

While beginning the jack the nose of the aircraft the flight crew entered the flight compartment, and began to prepare the aircraft for a departure. The jacking of the NLG stopped and I returned the flight compartment to find the First Officer inputting his flight plan and beginning his pre-departure check. The maintenance safety [manual] was still displayed on the center pedestal. I then asked the crew what was going on and why they by-passed the maintenance [manual] and they stated that they are allowed to still use the aircraft MCDU (Mulitpurpose Control Display Unit). At that point I asked the Captain and First Officer to leave the flight deck because of the NLG tire changes and that for my safety they are not to press ANY switch or button. The Captain insisted that they are allowed. I returned downstairs and a coworker also working the NLG tire change then went upstairs and asked them to completely leave the aircraft for our safety and the Captain said he would make a PA announcement and everyone would leave.

We continued working when the Captain came down to the ramp area where we were working and began asking what is the correlation between the MCDU and the AC nose tires. I then explained it does not matter and that no button or switch should be pushed and that it is endangering the aircraft and the ground personnel that if hydraulics were to come on or the tiller moved the AC could come off the nose jack. By BYPASSING the maintenance safety [manual] the Captain and the First Officer put not only the AC in immediate danger but all maintenance personnel and ground personnel in the area in danger. The Captain's complete arrogance and anger towards the fact that he was not allowed in the flight compartment angered him to the point of swearing at me and my co-workers. At this point I radioed to my direct supervisor. The Captain returned upstairs. And the Tech Operations maintenance supervisor conferenced with the Captain and returned to speak with us saying that he was not sure of the rules and that if the [manual] does indeed mean the NO SWITCH can be pushed and that the MCDU is okay to be used. He then asked me [to] send him the reference material so that he can read it for himself because he was unsure. I then explained that he is the supervisor and HE should know the GMM and that it is unacceptable for the crew to do what they did. He said he took note of the Captains name so he could send him the appropriate GMM for the Captain to read

because the Captain and the supervisor were unaware of the company policy related to Lock out tag out [per] GMM.

The Captain made it clear to us that it was HIS aircraft and they will do as they wish and that we "think" that they are stupid, this is clearly not the case that these procedures are there for everyone's safety. This showed a large lack of respect for maintenance personnel's safety. After the supervisor conference with the crew they returned to the flight deck with the [maintenance manual] in place and continued their pre-departure process.

The crew seemed to be unaware of the magnitude and danger that was created in this event and did not take my warnings or upset seriously. This is the THIRD [report] I have filed regarding BYPASSING OF LOTO (Lock-Out Tag-Out) DEVICES AND THE MAINTENANCE [Manual] in THREE MONTHS. It seems that only aircraft damage or loss of life will bring this to the company's attention.

The aircraft was later released without further incidence.

Synopsis

B737 Maintenance Technician reported that the flight crew ignored the safety requirement while maintenance was working on the aircraft.

ACN: 1574956 *(28 of 50)*

Time / Day

Date : 201808

Place

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

Person

Reference : 1
Location Of Person : Gate / Ramp / Line
Reporter Organization : Air Carrier
Function.Maintenance : Technician
Qualification.Maintenance : Powerplant
Qualification.Maintenance : Airframe
ASRS Report Number.Accession Number : 1574956

Events

Anomaly.Deviation - Procedural : Published Material / Policy
Anomaly.Deviation - Procedural : Hazardous Material Violation
Detector.Person : Ground Personnel
When Detected : Routine Inspection
Result.General : None Reported / Taken

Assessments

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

Narrative: 1

I was recently made aware of a few possible errors I have made with shipping documentation. It is very possible that I was part of the errors that I was made aware of. Some of these items I absolutely shipped and if I made mistakes I will own up to it. I have had a rough last few months with 3 deaths in my family and 2 break-ins at my house. I know these are not excuses, but I certainly have had other things on my mind. I can see where I may have been distracted and missed some of these items. I have listed below what I was made aware of: Entered incorrect Airway Bill so Shipper Declaration didn't match. Found in ZZZ - Shipper did not put any HAZ Class Labels or LTD QTY Label on the box in question. ZZZ1 Questioned weights- Weights were more than 10% difference, ZZZ could not accept. Shipper did not weigh boxes of fire extinguishers, took weight from previous shipments. Company talked with all crew about weighing boxes every time. ZZZ2 Cargo notified Company Ops that a truck shipment that was set for a flight had 4 pieces on Shippers Declaration, but Dangerous Goods Form said 2 pieces. Station redid shipper Declaration send to Cargo to move shipment. Found Shipper left off 2.2 HAZ Label, covered DOT-SP Label with the 5.1 HAZ Label, all labels poor condition. I would like to add that if the [Company safety rep] rep would not have talked to me, I would not have known that I was allowed to file this report.

Synopsis

Maintenance Technician reported several HAZMAT shipping errors.

ACN: 1572885 *(29 of 50)*

Time / Day

Date : 201808

Place

Altitude.AGL.Single Value : 0

Aircraft

Reference : X
Aircraft Operator : Air Carrier
Make Model Name : Commercial Fixed Wing
Operating Under FAR Part : Part 121
Mission : Passenger

Person

Reference : 1
Reporter Organization : Air Carrier
Function.Maintenance : Other / Unknown
ASRS Report Number.Accession Number : 1572885
Human Factors : Time Pressure
Human Factors : Training / Qualification
Human Factors : Situational Awareness

Events

Anomaly.Aircraft Equipment Problem : Less Severe
Anomaly.Deviation - Procedural : Published Material / Policy
Anomaly.Deviation - Procedural : Maintenance
Detector.Person : Maintenance
When Detected : Routine Inspection
Result.General : None Reported / Taken

Assessments

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

Narrative: 1

It [has] gotten to the point to where we as mechanics are starting to have a problem with these "fumes" in the cabin/cockpit. It's giving us a harder workload with no manpower. We are stressing about trying to get the work done. We are not finding anything wrong with our planes. Some of us are getting scared to signing off these planes.

Synopsis

Maintenance Technician reported that fumes in the cabin has become a difficult issue to resolve.

ACN: 1572589 *(30 of 50)*

Time / Day

Date : 201808
Local Time Of Day : 1201-1800

Place

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

Environment

Work Environment Factor : Temperature - Extreme

Aircraft

Reference : X
Aircraft Operator : FBO
Make Model Name : Skyhawk 172/Cutlass 172
Crew Size.Number Of Crew : 1
Operating Under FAR Part : Part 91
Mission : Training
Flight Phase : Parked
Maintenance Status.Maintenance Deferred : N
Maintenance Status.Maintenance Type : Scheduled Maintenance
Maintenance Status.Maintenance Items Involved : Repair
Maintenance Status.Maintenance Items Involved : Inspection

Person

Reference : 1
Location Of Person : Hangar / Base
Reporter Organization : Contracted Service
Function.Maintenance : Technician
Qualification.Maintenance : Powerplant
Qualification.Maintenance : Airframe
Experience.Maintenance.Technician : 3
ASRS Report Number.Accession Number : 1572589
Human Factors : Time Pressure
Human Factors : Situational Awareness

Events

Anomaly.Aircraft Equipment Problem : Less Severe
Anomaly.Deviation - Procedural : Published Material / Policy
Anomaly.Deviation - Procedural : Maintenance
Anomaly.Deviation - Procedural : FAR
Detector.Person : Maintenance
When Detected : Routine Inspection
Result.General : Maintenance Action

Assessments

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

Narrative: 1

Approximately 2.5 weeks ago, I was contracted to complete a 100 hour inspection by a personal friend who owns a local flight school. The owner has had a difficult time finding mechanics to work on his equipment. The flight school had previously employed some mechanics that appeared to not fully inspect/maintain the school's aircraft properly. Prior to my offering to help the owner, one of his aircraft had suffered a flight control failure/jam which had attracted the attention of the FAA. I agreed to help my friend (owner of the school) in order to help him keep his aircraft flying by fixing them.

I had previously performed a few 100 hour inspections prior to this on the owner's aircraft. During these previous inspections, I discovered quite a few discrepancies that I corrected/repaired and documented in the logs. This would be the second time I performed a 100 hour on this aircraft. I work with an individual who is not a certified mechanic, but has previously been certified in the past. This individual works under my supervision and does not inspect any part of the aircraft, he only corrects discrepancies (which I then inspect). During this inspection, I discovered and corrected a few minor discrepancies, but at a level nowhere near the number and severity discovered during the previous inspection. I signed off the aircraft and returned it to service. The aircraft has been flying regularly for the past 2 weeks. Today I discovered that the FAA inspected the aircraft and tagged it. The inspectors provided a list which contained: door hinge pins, signs of damage at rudder, possibly 1 incorrect flap installed, cowling Cam-Loc too long, [and] 1 rudder pedal appears worn.

While I have not been contacted by the FAA, I don't believe I could have missed those items at all during both inspections. If in fact I did miss them, I can only contribute that to feeling rushed. In a perfect world, a mechanic would have an infinite amount of time to inspect/repair an aircraft in an air-conditioned hangar. However, this isn't always the case. Feeling pressured to finish the plane due to lost revenue combined with 100+ degree heat could possibly lead to making mistakes. The mechanic perhaps inspects the smaller items - but may not inspect them thoroughly. While I am not admitting I didn't inspect the items above, it may be possible I didn't look at them long enough. Even-though the owner is a personal friend, I spoke with him about the importance of downing the aircraft to fix all the items. This can sometimes be a major issue at a small flight school. A mechanic needs time to accurately and correctly inspect/repair an aircraft.

I also spoke with the owner about the importance of documenting ALL maintenance. I noticed after I inspected the aircraft other mechanics had worked on it. I am unsure if any of their work was documented. It is important to do this because, (for example), another mechanic removes the cowl to fix a starter, loses a cowl fastener, and puts an incorrect one in without documenting it [and] then something happens. It may still be seen as the fault of the last mechanic who documented removing the cowl in the logbooks.

I will remember that the importance of taking your time while performing maintenance and inspections, and documenting all maintenance in the logs will ensure pilots and the public are provided with a safe aircraft.

Synopsis

Technician reported the FAA found irregularities after the 100 hour inspection on a Cessna 172 was completed.

ACN: 1572443 *(31 of 50)*

Time / Day

Date : 201808
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 : 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 : Gate / Ramp / Line
Reporter Organization : Air Carrier
Function.Maintenance : Lead Technician
Qualification.Maintenance : Powerplant
Qualification.Maintenance : Airframe
ASRS Report Number.Accession Number : 1572443

Events

Anomaly.Deviation - Procedural : Published Material / Policy
Anomaly.Deviation - Procedural : Hazardous Material Violation
Anomaly.Deviation - Procedural : FAR
Detector.Person : Maintenance
When Detected : Aircraft In Service At Gate
Result.General : Maintenance Action

Assessments

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

Narrative: 1

Flight came in with a used aircraft part, which is identified as being hazardous. There wasn't any paperwork to indicate that it was hazardous. The appropriate personnel to handle such materials are not available [at originating airport] and a number of other stations around the [Company] network. Where needed, management should and must make available the personnel to process such materials and attach the appropriate paperwork with it.

Synopsis

Lead Crew Chief reported HAZMAT transported without required HAZMAT documents.

ACN: 1571596 *(32 of 50)*

Time / Day

Date : 201808
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 : B777 Undifferentiated or Other Model
Crew Size.Number Of Crew : 2
Operating Under FAR Part : Part 121
Mission : Passenger
Flight Phase : Parked
Maintenance Status.Maintenance Deferred : N
Maintenance Status.Maintenance Type : Unscheduled Maintenance
Maintenance Status.Maintenance Items Involved : Inspection

Person

Reference : 1
Location Of Person : Company
Reporter Organization : Air Carrier
Function.Maintenance : Technician
ASRS Report Number.Accession Number : 1571596
Human Factors : Communication Breakdown
Communication Breakdown.Party1 : Maintenance
Communication Breakdown.Party2 : Maintenance

Events

Anomaly.Aircraft Equipment Problem : Less Severe
Anomaly.Deviation - Procedural : Published Material / Policy
Anomaly.Deviation - Procedural : FAR
Detector.Person : Maintenance
When Detected : Routine Inspection
Result.General : None Reported / Taken

Assessments

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

Narrative: 1

[The aircraft] was scheduled to have an ETOPS check done. Upon inspection, I noticed evidence of lightning strike damage. Also, the previous day, the aircraft had a static wick

blown off. I wrote the item in the logbook regarding the lightning strike and the plane was removed from service and taken to the hangar. The mechanic at the hangar signed the item off without performing a lightning strike inspection. The plane is in revenue service as we speak. I notified tech services with an e-mail and photos.

Synopsis

B777 Maintenance Technician reported that a procedure was signed off by Maintenance that was not accomplished.

ACN: 1571302 *(33 of 50)*

Time / Day

Date : 201803

Place

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

Aircraft

Reference : X
Aircraft Operator : Air Carrier
Make Model Name : B777 Undifferentiated or Other Model
Operating Under FAR Part : Part 121
Mission : Passenger
Flight Phase : Parked
Maintenance Status.Maintenance Type : Scheduled Maintenance
Maintenance Status.Maintenance Items Involved : Work Cards

Component

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

Person

Reference : 1
Location Of Person : Hangar / Base
Reporter Organization : Air Carrier
Function.Maintenance : Technician
ASRS Report Number.Accession Number : 1571302
Human Factors : Time Pressure
Human Factors : Workload

Events

Anomaly.Deviation - Procedural : Published Material / Policy
Detector.Person : Maintenance
When Detected : Routine Inspection
Result.General : Maintenance Action

Assessments

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

Narrative: 1

I was part of the crew that worked on [the aircraft]. We were assign to accomplish the rudder lube job card. If I recall we didn't follow the AMM (Aircraft Maintenance Manual) or part of the AMM because we didn't have enough time to accomplish the task in our shift,

so instead we follow instructions from a senior mechanic on how he uses a 2x4 wooden block to maintain the rudder pedals to the full right position with hydraulics on. By having that configuration we were able to lube all the zerk fittings on the left side of the rudder. If I remember correctly, I was doing the actual lubrication process of the rudder with a lift but I don't remember which mechanics were inside the flight deck watching the flight controls.

Synopsis

A B777 Maintenance Technician reported that procedures were not followed when the rudder was lubricated.

ACN: 1568973 *(34 of 50)*

Time / Day

Date : 201808
Local Time Of Day : 0001-0600

Place

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

Aircraft : 1

Reference : X
ATC / Advisory.Ground : ZZZ
Aircraft Operator : Air Carrier
Make Model Name : Regional Jet 200 ER/LR (CRJ200)
Flight Phase : Taxi
Maintenance Status.Maintenance Type : Scheduled Maintenance

Aircraft : 2

Reference : Y
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
Maintenance Status.Maintenance Type : Scheduled Maintenance

Component

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

Person

Reference : 1
Location Of Person.Aircraft : X
Location In Aircraft : Flight Deck
Reporter Organization : Air Carrier
Function.Maintenance : Technician
Qualification.Maintenance : Airframe
Qualification.Maintenance : Powerplant
ASRS Report Number.Accession Number : 1568973
Human Factors : Situational Awareness

Events

Anomaly.Deviation - Procedural : Published Material / Policy
Anomaly.Ground Event / Encounter : Aircraft
Detector.Person : Maintenance

When Detected : Taxi
Result.Aircraft : Aircraft Damaged

Assessments

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

Narrative: 1

I was asked to taxi an aircraft by my Lead Mechanic from the back corner of our ramp to [a] gate at the terminal for its morning departure. It was parked next to another aircraft in a staggered formation. As we approached the aircraft, I looked to see the clearance between the aircraft winglets and determined that I would be able to turn out away from the other plane and still have good distance between the planes on the right and also between the fences on the left. My partner removed the chocks from the nose landing gear and I connected the torque links. As I was doing this, my Lead was walking up and asked if I needed to be tugged out or if I thought that I could turn out. Another mechanic was also approaching with our Lektro to help tug it out of its current position. I told them both that I would be able to turn out and that I did not require to be tugged.

Both my partner and myself opened the main passenger door and went inside the aircraft. I sat in the left seat and started the sequence to start the APU. While the APU was starting, I adjusted the left seat, then turned on the APU generator for aircraft power. Then, I turned on all 3 hydraulic systems and armed nose wheel steering while my partner closed the passenger door. After she sat down in the right seat, I started the right Number 2 engine as that provides hydraulic pressure to the brakes in the event that the generators failed. After it stabilized, I started the left Number 1 engine and flipped on the Number 2 IDG. After the Number 1 engine stabilized, I flipped on the Number 1 IDG. I ran through all the EICAS synoptic pages and turned on both COM Number 1 and Number 2 to Ground frequency. After all things were set properly, I asked my partner to watch the right wing and make sure that I was clear. She did exactly as I asked and did not look away. We did not have a wing walker watching the left wing or right wing.

I turned the nose wheel fully to the left and gave the right engine thrust as to move the aircraft. She stated that it looked like I was clear from her vantage point. We moved a few feet from our original location and hit the winglet of the other aircraft with our winglet. At which point, I stopped and set the parking brake, shut down both engines and proceeded to check everything in the cockpit before I exited the plane to see what [had] happened. During which time, several individuals came out from the hangar to see what had happened. I came out and looked at the damage, at which time I went back and completely shut down the aircraft.

I did not use my checklist for starting the APU or engines and I also did not have wing walkers to watch as I moved the aircraft from a tight parking spot. Always use your checklist and always have wing walkers when in close proximity to other objects and planes.

Synopsis

CRJ Maintenance Technician reported that when attempting to taxi out of a congested area, the winglet struck the winglet of another aircraft.

ACN: 1568187 *(35 of 50)*

Time / Day

Date : 201807
Local Time Of Day : 0601-1200

Place

Locale Reference.Airport : ZZZ.Airport
State Reference : US
Altitude.MSL.Single Value : 23000

Aircraft

Reference : X
ATC / Advisory.Center : ZZZ
Aircraft Operator : Air Carrier
Make Model Name : B737-400
Crew Size.Number Of Crew : 2
Operating Under FAR Part : Part 121
Flight Plan : IFR
Mission : Passenger
Flight Phase : Climb
Airspace.Class A : ZZZ
Maintenance Status.Maintenance Deferred : Y
Maintenance Status.Maintenance Type : Unscheduled Maintenance
Maintenance Status.Maintenance Items Involved : Testing

Component

Aircraft Component : Pressurization Control System
Aircraft Reference : X
Problem : Malfunctioning

Person

Reference : 1
Location Of Person : Company
Reporter Organization : Air Carrier
Function.Maintenance : Technician
Qualification.Maintenance : Powerplant
Qualification.Maintenance : Airframe
ASRS Report Number.Accession Number : 1568187

Events

Anomaly.Aircraft Equipment Problem : Less Severe
Detector.Person : Flight Crew
When Detected : In-flight
Result.General : Maintenance Action
Result.Flight Crew : Requested ATC Assistance / Clarification
Result.Flight Crew : FLC Overrode Automation
Result.Flight Crew : Returned To Departure Airport
Result.Air Traffic Control : Provided Assistance

Assessments

Contributing Factors / Situations : Aircraft
Primary Problem : Aircraft

Narrative: 1

The aircraft returned to ZZZ for a loss of Cabin Pressurization. Altitude Alert sounded to notify crew of an emergency. Climbing through FL230, lost the cabin pressurization. Altitude Alert sounded. Captain advised First Officer (F/O) to run the check list, Captain had aircraft and radios. Requested immediate descent to MSA. Was given confirmation to descend to 14,000 ft, then continue descent to 10,000 ft. F/O and myself determined that we did not have Auto and STBY modes for cabin pressurization. For the safety of the crew and passengers, we requested a priority landing , because I was not sure if I could maintain cabin pressurization in the Manual Mode. We returned to ZZZ, I was advised to do an operational test of the outflow valve in the manual mode by Maintenance Control. I performed a ops test of the outflow valve in the manual mode, and the ops test passed. Maintenance Control advised me that I was to MEL and DMI the cabin pressurization and dispatch the aircraft. I dispatched the aircraft under MEL.

Synopsis

Maintenance Technician reported the pressurization system on a B737 was inoperative in auto and standby modes.

ACN: 1567214 *(36 of 50)*

Time / Day

Date : 201808
Local Time Of Day : 0001-0600

Place

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

Aircraft

Reference : X
Aircraft Operator : Air Carrier
Make Model Name : Airbus 318/319/320/321 Undifferentiated
Crew Size.Number Of Crew : 2
Operating Under FAR Part : Part 121
Mission : Passenger
Flight Phase : Parked
Maintenance Status.Maintenance Type : Scheduled Maintenance
Maintenance Status.Maintenance Items Involved : Work Cards

Component

Aircraft Component : Chip Detector
Aircraft Reference : X
Problem : Improperly Operated

Person

Reference : 1
Location Of Person : Company
Reporter Organization : Air Carrier
Function.Maintenance : Technician
Qualification.Maintenance : Powerplant
Qualification.Maintenance : Airframe
ASRS Report Number.Accession Number : 1567214

Events

Anomaly.Aircraft Equipment Problem : Less Severe
Anomaly.Deviation - Procedural : Published Material / Policy
Anomaly.Deviation - Procedural : Maintenance
Detector.Person : Maintenance
When Detected : Routine Inspection
Result.General : Maintenance Action

Assessments

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

Narrative: 1

I am submitting this [report] as informational. [A mechanic said] he has serious concerns about contract maintenance being performed in ZZZZ. He stated the following: that he worked on Aircraft X after it returned to ZZZ after left engine oil loss. He was assigned to investigate the oil loss and discovered the Chip Detector o-ring had been installed incorrectly (when installed incorrectly one can see green indicating improper installation) and when he followed up with [Maintenance Control] he discovered the Chip Detector and o-ring had been serviced in ZZZZ. I asked why is he telling me this so much later after the event and he said "because it just happened again today on Aircraft Y". He went on to state: he got involved today on Aircraft Y because ZZZ mechanics were investigating an engine oil leak after the aircraft returned to the airport and it seemed familiar to him. Upon further investigation and experience they found the Oil Filter Drain Plug o-ring improperly installed and once again green was showing. He went on to state the aircraft had the work card performed in station ZZZZ by contract maintenance.

According to the ZZZ mechanic, he expressed the contractor in ZZZZ either lacks the training or skill level necessary to safely complete the chip detector cards on Airbus aircraft. He explained the housing is aluminum and that the mechanics in ZZZZ may be applying too much torque to the detector when it is installed in the housing.

Ensure training of contract maintenance and FAA oversight of contract maintenance is on par with what is required of [the company] in the United States. He also stated that maybe the contractors are not applying the correct torque due to the specified torque value not being converted correctly.

Synopsis

Airbus A320 Series Technician reported that aircraft maintained by foreign contractor have excessive oil loss due to improper maintenance.

ACN: 1566584 *(37 of 50)*

Time / Day

Date : 201808

Place

Altitude.AGL.Single Value : 0

Environment

Light : Daylight

Aircraft

Reference : X
Aircraft Operator : Corporate
Make Model Name : Embraer Phenom 100
Operating Under FAR Part : Part 91
Flight Phase : Parked
Maintenance Status.Maintenance Type : Scheduled Maintenance
Maintenance Status.Maintenance Items Involved : Testing
Maintenance Status.Maintenance Items Involved : Inspection

Component

Aircraft Component : Pitot-Static System
Aircraft Reference : X
Problem : Improperly Operated

Person

Reference : 1
Location Of Person : Repair Facility
Reporter Organization : Corporate
Function.Maintenance : Technician
Qualification.Maintenance : Powerplant
Qualification.Maintenance : Airframe
ASRS Report Number.Accession Number : 1566584
Human Factors : Situational Awareness
Human Factors : Time Pressure
Human Factors : Training / Qualification
Human Factors : Workload
Human Factors : Troubleshooting

Events

Anomaly.Aircraft Equipment Problem : Less Severe
Anomaly.Deviation - Procedural : Published Material / Policy
Anomaly.Deviation - Procedural : Maintenance
Detector.Person : Maintenance
When Detected : Routine Inspection
Result.General : Maintenance Action

Assessments

Contributing Factors / Situations : Aircraft
Contributing Factors / Situations : Equipment / Tooling
Contributing Factors / Situations : Human Factors
Contributing Factors / Situations : Incorrect / Not Installed / Unavailable Part
Contributing Factors / Situations : Manuals
Contributing Factors / Situations : Procedure
Contributing Factors / Situations : Staffing
Primary Problem : Procedure

Narrative: 1

Prior Maintenance Planning had been done to schedule the aircraft as 'Out of Service' for Maintenance for Standby Pitot/Static probe restoration (cleaning), Standby Instrument Functional Check, & Transponder functional check. Work to be performed would be under our 145 repair station by a trained tech. Due to scheduling conflicts, it was determined earlier in the week that only one of the two techs certified to perform the work and allowed to work this aircraft via company policy would be on site to perform. Two other 145 certified techs, not able to work the aircraft due to company policy, were on site all day and able to provide advisement and inspection of work performed; one of which was present during the incident and first noticed the issue in real time. I had reviewed the work pack for the original intended scheduled maintenance earlier in the week to ensure familiarity and look for any potential pitfalls or denotation of tools/procedures required that we may have missed in the initial planning and creation of the work pack. I was advised by management to revise the work pack to include ADC functional checks and restoration of the primary pitot sources. The work pack would then reflect all Ch. 34 items on the 24 month inspection time limit in the 91.411 & 91.413. Prior to the revision, the 91.411 ADC Check and 91.413 transponder checks had been split by roughly 365 days due to equipment changes and re-certification in the past. Performing the ADC checks despite not being due would realign all of the 91.411 & 91.413 related tasks together to all come due at the same time in the future. I updated the work pack on our computerized labor system, task tracking, and billing system, revised the billing as advised, printed out the additional applicable Aircraft Maintenance Manual tasks that were being added and compiled them with the previously printed and organized work pack binder. I also reviewed the tasks to re-familiarize and search for pitfalls/any issues I may have ran into the next day. Between the work pack update as described above and phone calls regarding other aircraft on our certificate with Admin work needing to be handled, I found myself leaving work finally as noted above.

The first half of the work day I accomplished both Pitot Probe Restoration tasks per IAW the AMM instruction despite numerous delays from possible aircraft hangar movement requirements, maintenance labor/work order program tech issues that had to be resolved by the provider company tech support, and tool fashioning requirements that I was not able to predict despite prior preparations. The pitot lines for Embraer have different securing features than typical corporate/GA AN-fitting style line connections. This was not seen in the manual references for the tasks being accomplished. After a very brief lunch, I started back on the aircraft, continuing to deal with delays related to retrieving AN fitting adapters and setup for a P/S test and transponder test immediately after. After a parts run to the local hydraulic store for an oddball fitting required for the Standby Pitot/Static probe adapter that we were unaware of prior to the day we did not have any more of, It was afternoon and I was finishing final setup and preparations. I followed the Embraer AMM for the EMB500, in reference to our S/N aircraft, and made noticed it did not call for pulling the pitot/static heater breakers as a safety precaution. From experience with other aircraft of multiple manufacturers when dealing with pitot/static related tasks, I pulled the all heater breakers in the cockpit of the aircraft to disable the system. Once I applied power,

and allowed for stabilization of the Standby and both PFD's, I set the pitot/static test box to 1500 ft altitude and 100 knots airspeed with a 1500 ft/min vertical speed as a preliminary check before committing to higher altitude for a leak check of the full system. It was at about 1000 ft altitude on the test box, while I was in the cockpit monitoring the PFD's and standby readout to follow the pitot/static tester handheld readout, that my coworker/inspector for this event yelled from outside the aircraft that we had smoke. I jumped out to identify the source and we saw the pilot side Pitot Probe adapter starting to ooze out the inside plastics from the heat. [The technician] immediately jumped into the cockpit as I told the tester handheld to go to ground so we could disconnect without damaged the aircraft systems. The altitude came down quickly, I yelled for [the technician] to shut down the aircraft power and we grabbed rags to pull the pitot adapters off while the plastics were still liquid, we promptly cleaned off the molten contaminants so it would not dry on the probes. Note- the aircraft was weight on wheels and knew it was on the ground.

After everything cooled we inspected the adapters and found they would need replacement insides that can be ordered as kits. We also found some contaminants on the pilot side pitot tube had seeped through the drain hole. I broke up the solidified contaminants and performed the Pitot Tube Restoration task again, verifying the pitot tube was serviceable. Upon discussing the incident with our Director of Maintenance not long after, we were informed that Embraer's will in fact turn on Pitot Heat if certain breakers in the cockpit are pulled. We later found at the top of the AMM task for the ADC Functional Check I was performing, that Embraer lists AAM Task 34-10-00-480-801-A/200 'Pitot/Static Tester Connection' in the references section, however, in the set up and order of operations I followed up until the part where instructed to take the aircraft to altitude with the test box, it does not mention to reference this task like it does other tasks for preparing a safe aircraft for the following maintenance. The task also does not explicitly mention or have any warnings regarding leaving any heater breakers closed/opening them. We acquired another set of adapters and leak checked the pitot system for both ADC's and the standby, with the Test Box, due to the connection lines being opened earlier in the day for the Pitot Restoration tasks and the system showed leak free and functional. At this point I was able to sign off the work performed and RTS the aircraft for it to make its departure the next morning without delay. We experienced no delay in flight operations, however, very likely could have missed the next day flight if we couldn't resource other pitot adapters that fit properly, or even if we have damaged the pitot tubes in some way that the AMM would advise replacement.

Embraer [should consider an] update to the AMM Task 34-15-00-720-801-A to include the referenced Pitot/Static Tester - connection task in the setup steps before applying pitot/static pressures to the aircraft to ensure safe configuration. Many pull breakers as additional safeties when performing work just in case other systems fail. A "WARNING" note would be helpful as well, stating that improper pitot/static heat breaker configuration could potentially cause damage to equipment/the aircraft/personnel. I believe this would be an important update to have for the task because I'm sure this is not the first time someone with a lack of experience personally, with Embraer aircraft, has made this mistake, to ensure safety. Also, on our department's end, we will have to shoot for more realistic time allotments for work, planning, and setups. Also ensuring the proper training for each airframe and available hands to work the project will come into play. Without my coworker being able to double as my inspector, despite company policy deeming he does not under normal circumstances work on this aircraft, this could have been much worse. With ever changing schedules and customer needs, we all strive to do the best we can, but we will have to do better with recognizing the limits of safe operation schedules.

Synopsis

EMB-500 Maintenance Technician reported the test connections melted on the pitot probes while testing the pitot/static system.

ACN: 1566147 *(38 of 50)*

Time / Day

Date : 201808

Place

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

Aircraft

Reference : X
Make Model Name : B767 Undifferentiated or Other Model
Operating Under FAR Part : Part 121
Flight Phase : Parked

Person

Reference : 1
Location Of Person : Company
Reporter Organization : Air Carrier
Function.Maintenance : Other / Unknown
ASRS Report Number.Accession Number : 1566147
Human Factors : Situational Awareness
Human Factors : Training / Qualification

Events

Anomaly.Conflict : Ground Conflict, Less Severe
Anomaly.Deviation - Procedural : Published Material / Policy
Detector.Person : Maintenance
When Detected : Routine Inspection
Result.General : None Reported / Taken

Assessments

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

Narrative: 1

The move team was bringing in Aircraft X and didn't even notice that they nearly clipped the wing tip on Aircraft Y. They left without noticing their error. When the move team brings in an aircraft to the gate, they are not required to have wing walkers but when maintenance brings in an aircraft, ramp comes out and guides the plane in and has wing walkers. The mechanics are the most experienced to move aircraft since we have been doing it for many years. The reason why it was given to ramp was the cost to move. If a mechanic moves an aircraft, we are required to have one man in the cockpit, one on each wing, a tractor driver and guide man and one more at the tail. Supposedly too costly for us doing it. Now the move team does it with two people and no guide man.

I don't have a solution because someone over rode, the way maintenance moves aircraft

to a cheaper way not considering the safety factor. Give it back to the mechanics since their way of moving aircraft is safer.

Synopsis

A maintenance person reported that a move crew towed an aircraft into a gate without marshalers and nearly clipped the wingtip of an adjacent aircraft.

ACN: 1564843 *(39 of 50)*

Time / Day

Date : 201806
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 : Commercial Fixed Wing
Flight Phase : Parked
Maintenance Status.Maintenance Type : Scheduled Maintenance

Component

Aircraft Component : Exterior Pax/Crew Door
Aircraft Reference : X
Problem : Improperly Operated

Person

Reference : 1
Location Of Person : Hangar / Base
Reporter Organization : Air Carrier
Function.Maintenance : Other / Unknown
ASRS Report Number.Accession Number : 1564843
Human Factors : Situational Awareness
Human Factors : Training / Qualification
Human Factors : Confusion

Events

Anomaly.Flight Deck / Cabin / Aircraft Event : Other / Unknown
Anomaly.Deviation - Procedural : Maintenance
Anomaly.Deviation - Procedural : Published Material / Policy
Detector.Person : Maintenance
When Detected : Routine Inspection
Result.General : Physical Injury / Incapacitation

Assessments

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

Narrative: 1

I walked up the stairs to the aircraft, and when I tried to lift the door open handle, it resisted. So I immediately looked at the small window for the flashing light which would

indicate pressurization, but it was not flashing. I moved the door handle another fraction of an inch and the door exploded open sending me flying over twenty feet landing at nearly the bottom of the stairs.

Neither the job card nor the AMM were followed. Many mechanics in the area did not know that the aircraft was being pressurized and those who did know were unaware that the procedure was being started. The job card should be as rigorous as the fuel tank entry job card, i.e., Foreman should be required to document that he has verified that there are two people in the cockpit (there was only one in this incident). That radio communication has been established between the cockpit and the ground crew (there was no radio communication in this incident and possibly only one radio present). [There should be] a requirement for a barrier to the entry door [to] be present (again, not present in this incident). [We should] require a stamp off assuring that all unnecessary personnel be removed from the aircraft and the immediate work area (many mechanics were milling about the area completely oblivious to the pressurization in progress). The exit slide circuit breakers [should] be confirmed CLOSED prior to any aircraft pressurization being initiated.

Synopsis

A maintenance person reported that the aircraft was pressurized when the door was opened, causing the door to explode open sending the mechanic back about 20 feet.

ACN: 1563930 *(40 of 50)*

Time / Day

Date : 201807
Local Time Of Day : 0601-1200

Place

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

Environment

Light : Night

Aircraft

Reference : X
Aircraft Operator : Air Carrier
Make Model Name : MD-80 Series (DC-9-80) Undifferentiated or Other Model
Operating Under FAR Part : Part 121
Mission : Passenger
Flight Phase : Parked
Maintenance Status.Maintenance Type : Unscheduled Maintenance
Maintenance Status.Maintenance Items Involved : Repair
Maintenance Status.Maintenance Items Involved : Testing
Maintenance Status.Maintenance Items Involved : Inspection

Component

Aircraft Component : Rudder Control System
Aircraft Reference : X
Problem : Malfunctioning

Person

Reference : 1
Location Of Person : Company
Reporter Organization : Air Carrier
Function.Maintenance : Technician
Qualification.Maintenance : Airframe
Qualification.Maintenance : Powerplant
ASRS Report Number.Accession Number : 1563930
Human Factors : Troubleshooting

Events

Anomaly.Aircraft Equipment Problem : Critical
Anomaly.Deviation - Procedural : Published Material / Policy
Anomaly.Deviation - Procedural : Maintenance
Detector.Person : Maintenance
Result.General : Maintenance Action

Assessments

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

Narrative: 1

Aircraft X, on approach to ZZZ had following PIREP: on approach the rudder travel unrestricted light did not illuminate until 140 kts. Per MM 27-20-00 Page block 101. Rudder and Tab-Troubleshooting. 1. Troubleshooting A.F.Steps 1-5. The Rudder Travel Unrestricted Warning Light should have come ON at or before 191 kts. It did not illuminate until 140 kts. The Contract Maintenance Employee only accomplished step 3 in the troubleshooting guide. Contract Employee's signoff: Accomplished bite check of both rudder proximity switches...inspected rudder throw limiter proximity sensor brackets...cleaned debris from sensors. This contract employee's actions are covered under step 3 in the troubleshooting guide, and all was found to be OK. Employee DID NOT DO ANY MORE TROUBLESHOOTING to determine why the rudder travel did not become unrestricted until 140 knots. If the Pilot Flying had to execute an evasive maneuver, i.e. possible bird strike, windshear, go-around, auto-pilot disconnect, weather event, evasive action to prevent mid-air collision, etc.... The aircraft's rudder movement was limited, thereby restricting its movement and the subsequent full-authority control of the aircraft. The ZZZ employee should have done more troubleshooting to determine why the discrepancy occurred. Rudder not rigged properly. Rudder Limiter System, Excessive Friction. Pitot tube sump clogged. Throw-Limiter actuator and linkage out of adjustment. The employee only accomplished a sensor check - Step 3- and returned the aircraft to service. The problem repeated on another flight. Cause: Inadequate experience level, troubleshooting skills, MD-80 familiarity, unfamiliar with Maintenance Manuals. Suggestions: Follow Maintenance Manual Procedures as defined by company policy and CFR's.

Synopsis

MD-80 Maintenance Technician reported that Contract Maintenance did not complete the Rudder Travel Unrestricted Warning Light troubleshooting procedure.

ACN: 1563926 *(41 of 50)*

Time / Day

Date : 201807

Place

Altitude.AGL.Single Value : 0

Aircraft

Reference : X
Aircraft Operator : Air Carrier
Make Model Name : B737 Next Generation Undifferentiated
Operating Under FAR Part : Part 121
Mission : Passenger
Flight Phase : Parked

Component

Aircraft Component : Winglet
Aircraft Reference : X
Problem : Failed

Person

Reference : 1
Location Of Person : Company
Reporter Organization : Air Carrier
Function.Maintenance : Technician
ASRS Report Number.Accession Number : 1563926
Human Factors : Communication Breakdown
Human Factors : Other / Unknown
Human Factors : Situational Awareness
Communication Breakdown.Party1 : Maintenance
Communication Breakdown.Party2 : Maintenance

Events

Anomaly.Aircraft Equipment Problem : Less Severe
Anomaly.Deviation - Procedural : Published Material / Policy
Anomaly.Deviation - Procedural : Maintenance
Anomaly.Deviation - Procedural : FAR
Detector.Person : Maintenance
When Detected : Routine Inspection
Result.Aircraft : Aircraft Damaged

Assessments

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

Narrative: 1

Aircraft arrived with damage to right wing upper scimitar trailing edge and had missing material and rough edges. Upon closer inspection it was discovered a lightning strike damage. This was also confirmed by a sheet metal technician on duty and called into the controller by radio to take aircraft OOS (out of service) for lightning strike inspection. But the Maintenance Supervisor signed off lightning strike inspection at the gate within minutes and without complying with procedure outlined in AMM (Aircraft Maintenance Manual). Not only that, but the damage at the trailing edge was not even addressed or blended smooth per SRM (Structural Repair Manual), but deferred to paint and aircraft released for service. Maintenance Supervisor signed off lightning strike damage to prevent further delay of revenue flight. This compromises safety of equipment, crew, and passengers and is against [the] core value of [the company]. This was immediately brought to attention of Union Stewards and Shift Manager on duty.

Synopsis

Maintenance Technician reported that the required action was not taken after a lightning strike on a B737 scimitar winglet.

ACN: 1563924 *(42 of 50)*

Time / Day

Date : 201807
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 : Regional Jet 900 (CRJ900)
Operating Under FAR Part : Part 121
Flight Phase : Parked

Component

Aircraft Component : Hydraulic System Lines, Connectors, Fittings
Aircraft Reference : X
Problem : Failed
Problem : Improperly Operated

Person

Reference : 1
Location Of Person : Company
Function.Maintenance : Other / Unknown
ASRS Report Number.Accession Number : 1563924
Human Factors : Troubleshooting

Events

Anomaly.Aircraft Equipment Problem : Less Severe
Anomaly.Deviation - Procedural : Published Material / Policy
Anomaly.Deviation - Procedural : Maintenance
Anomaly.Deviation - Procedural : FAR
Detector.Person : Maintenance
When Detected : Routine Inspection
Result.General : Maintenance Action

Assessments

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

Narrative: 1

Maintenance crew went over to the gate to bring it back to the hangar and noticed hydraulic fluid dripping off of the tail section of the aircraft. It was running down from the APU bay area to the door to the aft equipment bay. They also noticed the hydraulic level

was 25%. Level was serviced before taxi. On way to hangar level dropped 15%. Gained access to the aft equipment bay to look for leaks. Noted that the aft bay was filled with fluid on the right hand side. Checked into [inventory] for maintenance history regarding hydraulics and flight controls. Noted aircraft had a couple for write ups for low pressure and had maintenance done on it with replacing a couple of switches, Job Card X and Job Card Y according to [inventory]. Upon further inspection, found the cause of the leak to be coming from Job Card Z. After removal of switch, it was found to be installed with no O-ring, the back shell to the connector was not tight and the switch was not safetied. The sign off and reference used was also incorrect. Job Cards X/Y is for the Number 1 system, not the Number 2 system which was the write up that was being worked by [a Technician]. There is no AMM (Aviation Maintenance Manual) 29-XX-XX. It was also found that the top switch, Job Card Z was also not safetied, but did have an O-ring installed.

I did go back into aircraft in the Maintenance Control screen and saw that [the aircraft] was worked on by a road trip. I would have to guess that lack of manuals and knowledge played a part in the errors committed.

Synopsis

CRJ-900 Maintenance Supervisor reported that the aircraft was losing hydraulic fluid due to a switch that was installed without an "O" ring.

ACN: 1563016 *(43 of 50)*

Time / Day

Date : 201807
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 : Commercial Fixed Wing
Crew Size.Number Of Crew : 2
Operating Under FAR Part : Part 121
Flight Phase : Parked
Maintenance Status.Maintenance Type : Scheduled Maintenance
Maintenance Status.Maintenance Items Involved : Installation
Maintenance Status.Maintenance Items Involved : Inspection

Component

Aircraft Component : APU Fuel System
Aircraft Reference : X
Problem : Improperly Operated

Person

Reference : 1
Location Of Person : Company
Reporter Organization : Air Carrier
Function.Maintenance : Technician
Qualification.Maintenance : Powerplant
Qualification.Maintenance : Airframe
ASRS Report Number.Accession Number : 1563016

Events

Anomaly.Aircraft Equipment Problem : Less Severe
Anomaly.Flight Deck / Cabin / Aircraft Event : Smoke / Fire / Fumes / Odor
Anomaly.Deviation - Procedural : Maintenance
Detector.Person : Maintenance
When Detected : Routine Inspection
Result.General : Maintenance Action

Assessments

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

Narrative: 1

I was tasked a Periodic Service Check with a removal and replacement of Fuel Control Unit of the APU on [the] aircraft. After completion of PS Check, I removed and replaced APU Fuel Control Unit referring [to] AMM. While performing Operation and Leak Check, I observed flames emitting from APU exhaust. I called to cockpit to notify of fire, then proceeded to extinguish fire and call to notify fire department and Lead. Subsequent to fire being extinguished, an inspection was performed on APU compartment and APU exhaust with no damage noted.

Synopsis

Air Carrier Maintenance Technician reported that while performing an operational check on the APU, flames started coming out of the exhaust.

ACN: 1562749 *(44 of 50)*

Time / Day

Date : 201806

Place

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

Aircraft

Reference : X
Aircraft Operator : Air Carrier
Make Model Name : MD-11
Operating Under FAR Part : Part 121
Mission : Cargo / Freight
Maintenance Status.Maintenance Type : Unscheduled Maintenance
Maintenance Status.Maintenance Items Involved : Inspection

Component

Aircraft Component : Hydraulic System Lines, Connectors, Fittings
Aircraft Reference : X
Problem : Malfunctioning

Person : 1

Reference : 1
Location Of Person : Hangar / Base
Reporter Organization : Air Carrier
Function.Maintenance : Technician
ASRS Report Number.Accession Number : 1562749
Human Factors : Communication Breakdown
Human Factors : Troubleshooting
Human Factors : Time Pressure
Communication Breakdown.Party1 : Maintenance
Communication Breakdown.Party2 : Maintenance

Person : 2

Reference : 2
Location Of Person : Company
Reporter Organization : Air Carrier
Function.Maintenance : Technician
ASRS Report Number.Accession Number : 1562750
Human Factors : Situational Awareness
Human Factors : Communication Breakdown
Communication Breakdown.Party1 : Maintenance
Communication Breakdown.Party2 : Maintenance

Events

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

Anomaly.Deviation - Procedural : Maintenance
Detector.Person : Maintenance
When Detected : Routine Inspection
Result.General : Maintenance Action
Result.Aircraft : Aircraft Damaged

Assessments

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

Narrative: 1

My partner and I found a major hydraulic leak covering the entire bottom of the tail section on the belly. We went up through the tail access door to inspect the hydraulic components since that's where the fluid seem to be coming from. There was way too much fluid everywhere in there covering everything going up to the highest point, my partner said he thought he might know where its coming from which is a hydraulic line near the engine so he wanted to partially open the patio doors. The patio doors were documented in the logbook that they were opened to F.O.M. ONLY because we had another plane we needed to catch, so we documented exactly what we did at the time being due to worrying about catching the inboard aircraft and doing the check on it. We never turned on hydraulics or even moved flight controls the entire time. Once we realized it was too involved, we let our supervisor know that the out of service crew would need to come take over and work it, as we still had another plane to come in and catch. The out of service crew never met with us and vica versa to get/give a proper turnover as to what's been done. Later on in the morning our supervisor asked us if we had turned hydraulics on and moved the elevators which we said no, as we simply just went up to check the obvious first before moving forward.

Narrative: 2

Called to investigate a hydraulic leak at the tail section (fwd. of APU comp.) Ran electric pumps to help find the source. While looking inside tail section (fwd. stab. & reservoir comp.) my partner exercised the flight controls to possibly help expose the source (no help). We entered the tail section up towards the patio and noticed the doors were partially open. At this point, we fully opened the doors and secured the hold open rods. While checking that area for leaks we noticed damage on the left patio door and elevator tip. We promptly contacted our supervisor. Upon reaching the ground and looking up we noticed damage on the other side of the aircraft.

Synopsis

MD11 Technician reported the maintenance platform was left partially open causing the elevator tip to make contact with the patio door.

ACN: 1557823 *(45 of 50)*

Time / Day

Date : 201807
Local Time Of Day : 1801-2400

Environment

Light : Night

Aircraft

Reference : X
Aircraft Operator : Air Carrier
Make Model Name : B737-700
Crew Size.Number Of Crew : 2
Operating Under FAR Part : Part 121
Flight Plan : None
Mission : Passenger
Flight Phase : Parked
Maintenance Status.Maintenance Type : Scheduled Maintenance
Maintenance Status.Maintenance Items Involved : Inspection

Component

Aircraft Component : Trailing Edge Flap
Aircraft Reference : X
Problem : Improperly Operated

Person : 1

Reference : 1
Location Of Person : Company
Reporter Organization : Air Carrier
Function.Maintenance : Technician
Qualification.Maintenance : Powerplant
Qualification.Maintenance : Airframe
ASRS Report Number.Accession Number : 1557823
Human Factors : Situational Awareness
Human Factors : Communication Breakdown
Communication Breakdown.Party1 : Maintenance
Communication Breakdown.Party2 : Maintenance

Person : 2

Reference : 2
Location Of Person : Company
Location In Aircraft : Flight Deck
Reporter Organization : Air Carrier
Function.Maintenance : Technician
Qualification.Maintenance : Airframe
Qualification.Maintenance : Powerplant
ASRS Report Number.Accession Number : 1557825
Human Factors : Communication Breakdown
Human Factors : Situational Awareness

Communication Breakdown.Party1 : Maintenance
Communication Breakdown.Party2 : Maintenance

Events

Anomaly.Deviation - Procedural : Published Material / Policy
Anomaly.Deviation - Procedural : Maintenance
Anomaly.Ground Event / Encounter : Object
Detector.Person : Maintenance
Result.General : Maintenance Action
Result.Aircraft : Aircraft Damaged

Assessments

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

Narrative: 1

I was working pax window inspection on aircraft. The cabin check had the APU on along with the packs for cooling the cabin. I had my ear plugs because I was working the pax window inspection card outside. I was inspecting the windows on the left side of aircraft fwd of the eng. A mechanic called down and asked if the wings were clear for flaps, I looked at both wings and gave him the clear sign. Several minutes went by I completed the window inspection fwd of the wing so I moved the ladder and tool box to the aft side on wing. I positioned my ladder to continue with the inspection. I climbed the ladder and started with the inspection again. With ear plugs in APU running and packs on I didn't hear him call out or see him for movement of the flaps and I couldn't see the beacon on because I was up against the fuselage. Once I saw the flaps moving down I jumped off the ladder but could not move out of the way before the flaps contacted the ladder. A person needs to keep in eyesight with all flaps moving, and be in contact with the person who is moving flaps and to the position that they are moving to.

Narrative: 2

I was in the cockpit working on some Avionics cards on the cabin visit. Another mechanic said they needed the flaps lowered. I asked if they were clear, he responded they were clear but he said, let him double check. When he told me they were clear, I lowered them. He then said to stop because he lost sight of someone at the wing. He then came back and told me they were clear. I lowered the handle and they began to move. While in transit to full down I heard people yelling STOP! I then moved the flap handle towards up while killing the hydraulic pump. By then it was too late. Someone had moved a ladder under the flaps and the left inboard trailing edge flap came down on the ladder and broke the trailing edge flap.

This was a breakdown in communication between myself, the mechanic clearing the flaps and the mechanics on the ground. I should have had a spotter I could see out the First Officer's window the whole time before I lowered the flaps. Someone could have been injured by this incident. The aircraft damage was later found to have a broken bellcrank and bent pushrods that drive the trailing edge, as well as the flap trailing edge.

Synopsis

B737 Maintenance Technicians reported the flaps were lowered onto a ladder that was positioned under the trailing edge of the flaps.

ACN: 1557250 *(46 of 50)*

Time / Day

Date : 201807

Place

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

Aircraft

Reference : X
Aircraft Operator : Air Carrier
Make Model Name : B757-200
Operating Under FAR Part : Part 121
Mission : Passenger
Flight Phase : Parked
Maintenance Status.Maintenance Items Involved : Installation

Component

Aircraft Component : Speedbrake/Spoiler
Aircraft Reference : X
Problem : Improperly Operated

Person : 1

Reference : 1
Location Of Person : Company
Reporter Organization : Air Carrier
Function.Maintenance : Technician
ASRS Report Number.Accession Number : 1557250
Human Factors : Situational Awareness
Human Factors : Communication Breakdown
Communication Breakdown.Party1 : Maintenance
Communication Breakdown.Party2 : Maintenance

Person : 2

Reference : 2
Location Of Person : Company
Reporter Organization : Air Carrier
Function.Maintenance : Technician
ASRS Report Number.Accession Number : 1557252
Human Factors : Training / Qualification
Human Factors : Situational Awareness
Human Factors : Communication Breakdown
Communication Breakdown.Party1 : Maintenance
Communication Breakdown.Party2 : Maintenance

Person : 3

Reference : 3
Location Of Person.Aircraft : X

Location In Aircraft : Flight Deck
Reporter Organization : Air Carrier
Function.Maintenance : Technician
ASRS Report Number.Accession Number : 1557253
Human Factors : Training / Qualification
Human Factors : Communication Breakdown
Human Factors : Situational Awareness
Communication Breakdown.Party1 : Maintenance
Communication Breakdown.Party2 : Maintenance

Events

Anomaly.Aircraft Equipment Problem : Less Severe
Anomaly.Flight Deck / Cabin / Aircraft Event : Illness
Anomaly.Deviation - Procedural : Published Material / Policy
Anomaly.Deviation - Procedural : Maintenance
Detector.Person : Maintenance
When Detected : Routine Inspection
Result.General : Maintenance Action
Result.General : Physical Injury / Incapacitation

Assessments

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

Narrative: 1

After finishing my assigned aircraft, lead directed me to assist 2 other mechanics in spoiler EHSV (Electro-hydraulic Servo Valve) change. One of the mechanics assigned to that aircraft was going to do the replacement the other was in the flight deck operating the spoiler and hydraulics as required. So I was assigned as ground mechanic giving clearance to the flight deck mechanic to power on/off hydraulics and spoiler. Mechanic replacing valve requested hydraulics on and spoiler deployed. I relayed the message to flight deck mechanic, when mechanic removed spoiler lock, the spoiler came down and caught mechanics arm for about 15-20 seconds then shot up and deployed releasing his arm.

Narrative: 2

I was directed by my lead to follow a section of Maintenance Manual that only included the replacement of the EHSV. I was removing the spoiler lock but it was wedged in there so we had cycled the spoiler. I tried to remove the lock with hydraulics off but I couldn't, so I asked the guy in the cockpit to turn hydraulics on and put the spoilers in the up position. With hydraulics on I was able to remove the spoiler lock and as soon as I removed it the Number 1 spoiler came down on my hand and began to crush it. After about 30 seconds of having my arm/hand crushed the spoiler came up and eventually released my arm. I was using AMM (aircraft Maintenance Manual) 27-XX-XX. Flaps were supposed to be down but they were locked out by avionics which led me to access the EHSV valve over the wing.

Narrative: 3

I was directed by my lead to see my coworker for additional job which was to replace spoiler EHSV with another mechanic. It was agreed that I will be operating the hydraulic switches and controls. I am getting the clearance from my ground man to turn hydraulics

on and off and move the spoiler handle as directed by my ground man's request. I was not in direct communication with the other mechanic who was doing the installation process.

Synopsis

B757 Technicians reported that the spoiler lock was removed causing the spoiler panel to come down onto a Mechanic's hand.

ACN: 1554863 *(47 of 50)*

Time / Day

Date : 201806

Place

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

Aircraft

Reference : X
Make Model Name : No Aircraft
Maintenance Status.Maintenance Items Involved : Work Cards
Maintenance Status.Maintenance Items Involved : Inspection

Component

Aircraft Component : Turbine Assemb Disc

Person

Reference : 1
Location Of Person : Company
Reporter Organization : Air Carrier
Function.Maintenance : Lead Technician
ASRS Report Number.Accession Number : 1554863

Events

Anomaly.Aircraft Equipment Problem : Less Severe
Anomaly.Deviation - Procedural : Published Material / Policy
Anomaly.Deviation - Procedural : Maintenance
Detector.Person : Maintenance
When Detected : Routine Inspection
Result.General : None Reported / Taken

Assessments

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

Narrative: 1

Static Balance Low Pressure Turbine (LPT) 4th stage disk assembly which includes, disk, blades and air seal, was assembled without proper procedures or inspection buybacks. I was lead and reviewed [engine] for work still needing to be accomplished, I found the bladed assembly on the static balance machine with no air seal, yet there was no stamped offs for work completed on the JIC (Job Instruction Cards). After further investigation the procedures that have been accomplished or needed to be accomplished was not complete and/or lacking information. Procedures that were performed and/or needed to be performed (open area inspection for air seal) to complete the task was NOT reflected in the signoffs in the non-routine write ups nor in the Job Instruction Cards.

[My suggestion is the] mechanical (safety side) stop assembly correct issue as to following procedures, that is out of my control.

Synopsis

A Maintenance Technician reported that work accomplished on a turbine disk was not signed-off and it was unknown what procedures were performed.

ACN: 1554612 *(48 of 50)*

Time / Day

Date : 201806
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 : Government
Make Model Name : Eurocopter AS 350/355/EC130 - Astar/Twinstar/Ecureuil
Flight Phase : Parked
Maintenance Status.Maintenance Deferred : N
Maintenance Status.Released For Service : Y
Maintenance Status.Maintenance Items Involved : Installation

Component

Aircraft Component : Tail Rotor Blade
Aircraft Reference : X
Problem : Improperly Operated

Person

Reference : 1
Location Of Person : Company
Reporter Organization : Government
Function.Maintenance : Technician
Qualification.Maintenance : Powerplant
Qualification.Maintenance : Airframe
Experience.Maintenance.Technician : 15
ASRS Report Number.Accession Number : 1554612
Human Factors : Time Pressure
Human Factors : Communication Breakdown
Communication Breakdown.Party1 : Maintenance
Communication Breakdown.Party2 : Maintenance

Events

Anomaly.Aircraft Equipment Problem : Critical
Anomaly.Deviation - Procedural : Published Material / Policy
Anomaly.Deviation - Procedural : Maintenance
Anomaly.Ground Event / Encounter : FOD
Detector.Person : Maintenance
When Detected : Routine Inspection
Result.General : Maintenance Action
Result.Aircraft : Aircraft Damaged

Assessments

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

Narrative: 1

I was asked to remove and replace two bent tracking tabs on a tail rotor blade by my supervisor and sign off the logbook [and] return to service. The tail rotor had come in contact with tall grass and weeds while landing in a field. You could see green chlorophyll approximately 6 to 8 inches up the leading edge of the tail rotor blade. I researched the manuals and found the Aircraft Maintenance Manual reference AS350 B2B3 05-50-00,6-7 that directs if a tail rotor blade while turning makes contact with a body which may apply resistance against the movement of the rotor and it gives examples such as water, snow, shrubs, etc. Must be removed and sent to the factory. I told my supervisor that I couldn't just change the bent tabs because the blades must be inspected. As of now I've been suspended from work due to insubordination. The tabs were changed and the AS350 is flying.

Synopsis

AS350 Technician reported that the tail rotor was not properly inspected after it encountered debris from landing in a grassy field.

ACN: 1552733 *(49 of 50)*

Time / Day

Date : 201806
Local Time Of Day : 0601-1200

Place

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

Environment

Light : Daylight

Aircraft : 1

Reference : X
Aircraft Operator : Air Carrier
Make Model Name : Brasilia EMB-120 All Series
Crew Size.Number Of Crew : 2
Operating Under FAR Part : Part 121
Flight Phase : Taxi

Aircraft : 2

Reference : Y
Make Model Name : Fairchild Swearingen Undifferentiated or Other Model
Flight Phase : Parked

Component : 1

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

Component : 2

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

Component : 3

Aircraft Component : Wingtip
Aircraft Reference : Y
Problem : Improperly Operated

Person

Reference : 1
Location Of Person : Company
Reporter Organization : Air Carrier
Function.Maintenance : Technician
Qualification.Maintenance : Powerplant
Qualification.Maintenance : Airframe
ASRS Report Number.Accession Number : 1552733

Human Factors : Training / Qualification
Human Factors : Situational Awareness

Events

Anomaly.Ground Event / Encounter : Aircraft
Detector.Person : Maintenance
When Detected : Taxi
Result.Aircraft : Aircraft Damaged

Assessments

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

Narrative: 1

After towing aircraft into parking position on north side of hangar, noticed that right lower wing tip did not clear the left upper wing tip of [another] aircraft parked next to it. There is a scratch in the paint on the underside of [the towed aircraft] right wing, a broken static wick, and trailing edge damage to the R/H aileron. [The other aircraft] has fiberglass damage to the L/H wing tip on the upper side. Although it appeared to have clearance from my viewing angle from the tug, I should have ask for more personnel to assist by wing walking. It was at the end of the day shift and I was trying to get all the aircraft moved before day shift left and I would have been by myself for the rest of the shift.

Synopsis

Maintenance Technician reported that while towing an EMB-120 the wingtip made contact with another aircraft's wingtip.

ACN: 1552725 *(50 of 50)*

Time / Day

Date : 201806

Place

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

Aircraft

Reference : X
Aircraft Operator : Air Carrier
Make Model Name : B757-200
Operating Under FAR Part : Part 121
Mission : Passenger
Flight Phase : Parked
Maintenance Status.Records Complete : N
Maintenance Status.Released For Service : Y
Maintenance Status.Maintenance Type : Unscheduled Maintenance
Maintenance Status.Maintenance Items Involved : Inspection
Maintenance Status.Maintenance Items Involved : Work Cards

Component

Aircraft Component : Chip Detector
Aircraft Reference : X

Person

Reference : 1
Location Of Person : Gate / Ramp / Line
Reporter Organization : Air Carrier
Function.Maintenance : Technician
Qualification.Maintenance : Powerplant
Qualification.Maintenance : Airframe
ASRS Report Number.Accession Number : 1552725
Human Factors : Troubleshooting
Human Factors : Confusion

Events

Anomaly.Aircraft Equipment Problem : Less Severe
Anomaly.Deviation - Procedural : Maintenance
Anomaly.Deviation - Procedural : Published Material / Policy
Detector.Person : Maintenance
When Detected : Routine Inspection
Result.General : Maintenance Action

Assessments

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

Narrative: 1

Aircraft had a write up for generator drive light inoperative. Mechanics were working the item. Mechanic was asked to tail watch. I became involved as a fifth mechanic simply by being interested in what was happening. After performing engine run to check light and process the MEL that was going to be applied, engine cowls had to be opened to reset the generator. This is the point that I was around the engine. As there were several mechanics involved prior to my arrival, I did not take charge planeside.

While closing up, [a] mechanic noticed an MCD (Magnetic Chip Detector) laying on the inboard fan cowl. A discussion started about what to do next and several folks (not sure who) looked at all exposed areas for a missing MCD. I decided to take the part inside to try and cross the number on it. No [MCD] number was crossing. I also asked several other mechanics if they had seen this type of MCD plug. The ones that I asked said it was not a Pratt part. Several of us also tried to look for any signed off log pages for recently signed engine work and found none. I then did an archive search and found [another station] had done an MCD check [several weeks prior]. After several minutes of back and forth discussion and having found no leaks or evidence of missing MCDs, the decision was made to close it up and release the aircraft.

However, after departure and several hours later I decided on my own to notify [Maintenance Control] that we may have a missing MCD after I actually printed the [electronic task] card signed at [the other station] and looked at the referenced figures. I asked if he would please enter an item to check it after it got to [the other station]. I made this decision after finally seeing that the part would cross [Maintenance] if only a section of the number was used and the blue top plug is an optional part according to the AMM. Also, after looking at the [electronic task] card and referenced diagrams, made me rethink that perhaps one was missed after it was found in the cowl and may not be installed.

[The electronic task card] and AMM do NOT match up exactly when dealing with a blue cap MCD. Also, part number crossing was not happening until the end of the part number was entered by itself.

Edit [the electronic task] card that was used for the original work since the [electronic task] card only talks about alignment marks and not these odd, blue-capped no alignment mark MCDs. Create a possible [maintenance] bulletin about finding uninstalled parts on aircraft that cannot be identified. As for my own personal lesson learned, be more assertive even if this is not my plane when seeing a possible quality escape. Call the Lead, foreman, etc.

Synopsis

Maintenance Technician reported that a Magnetic Chip Detector (MCD) was found on the engine fan cowl.