## 10/25/2023 **FOR YOUR INFORMATION**

2023-171/11-33

2021140

To: Airbus Industries

Info: FAA (AVP-1, AVP-200, AFS-200, AFS-100, AFS-260, AIR-720, AIR-360, SEA-AEG),

A4A, ALPA, AOPA, APA, ASAP, ATSAP, ATSG, CAPA, IAM, AMFA, IBT, IATA, ICAO,

ICASS, IFALPA, IPA, NATCA, NBAA, NTSB, RAA

From: Becky L. Hooey, Director

NASA Aviation Safety Reporting System

Re: A320 Aircraft Maintenance Manual Concerns

We recently received ASRS reports describing a safety concern that may involve your area of operational responsibility. We do not have sufficient details to assess either the factual accuracy or possible gravity of the report. It is our policy to relay the reported information to the appropriate authority for evaluation and any necessary follow-up. We feel you should be aware of the enclosed deidentified report.

To properly assess the usefulness of our alert message service, we would appreciate it if you would take the time to give us your feedback on the value of the information that we have provided. Please contact Dr. Becky Hooey at (408) 541-2854 or email at becky.l.hooey@nasa.gov.





ACN 2021140	
DATE / TIME	
Date of Occurrence	202307
Local Time Of Day	No Local Time Of Day Stated
PLACE	
Altitude - AGL	0
AIRCRAFT / EQUIPMENT X	
Make Model Name	A320
Operating Under FAR Part	121
PERSON 1	
Function - Maintenance	Technician
ASRS Report Number	2021140
PERSON 2	
Function - Maintenance	Technician
ASRS Report Number	2021141
PERSON 3	
Function - Maintenance	Technician
ASRS Report Number	2021142
EVENTS	
Anomaly	Aircraft Equipment Problem - Critical
Anomaly	Deviation / Discrepancy - Procedural - Maintenance
Anomaly	Deviation / Discrepancy - Procedural - Published
	Material / Policy
Anomaly	Ground Event / Encounter - Fuel Issue
Detector - Person	Maintenance
Result - General	Maintenance Action
NARRATIVE 1	

Supervisor assigned job to a late part that arrived to aircraft. All three mechanics were unfamiliar with job but were aware of the danger of fuel spilling. Arrived at aircraft, pulled breakers before turning on power, and created logbook write-up shorty after. Turned on power, noticed it had 3000 fuel, and asked older mechanics about defueling but after looking into the AMM (Aircraft Maintenance Manual). There was nothing that had details about transferring fuel beforehand, so continued. Proceeded to use the tool referenced in the manual to unseat the valve and started turning. There was a little fuel dripping from the seal as we turned it counterclockwise but not nearly enough for the manual that showed maximum of one bucket, so we kept turning until it started to have a lot of resistance and then proceeded to open the drain plug because then manual said to after the turning stopped. The drain plug showed no signs of fuel so we kept turning because the manual said only in steps beforehand to check the fuel flowing from the valve only after taking the assembly off. As we were turning the valve the keeper lock fell off from the body and dropped into the bucket and then the valve gave out, dropping the cover into the bucket and with a lot of resistance. We managed to lock the valve back in partially. I then had one of the mechanics go tell the Lead that we needed help and we tried to get the valve back in but it was locked in place. To add to this all three mechanics were reading the manual independently and wasn't following one single person reading off the manual.

The reference to change the fuel pump had very vague points and at one point told the Mechanic after taking the fuel pump off to gauge the amount that would possible to work with. The manual should reference fuel transferring beforehand to prevent larger spills along with a maximum amount of fuel total before using a fuel truck to drain the fuel if there is too much to transfer all in one wing. The manual highly highlighted the danger of cutting safety wire in red but had other warning orange.

## **NARRATIVE 2**

When we were working on Aircraft X, my coworkers were changing left wing tank inboard boost pump. I was helping them after I had done my jobs on the aircraft. We followed AMM (Aircraft Maintenance Manual) steps to remove, but the boost pump is stuck and hard to remove. While I was reviewing the AMM to find a solution related to this problem, other technicians removed the pump but fuel was coming out from the bank. They tried to put the pump back to the tank to stop the fuel, but that did not work. So I helped them put the bump back, also did not work. Because we could not stop and fuel leak, I went to grab fuel leak kit to clean the fuel. At the same time we notified the supervisors.

## **NARRATIVE 3**

I was following fuel pump AMM (Aircraft Maintenance Manual) task removal. Once the pump was removed fuel came out after following step in accordance with AMM. Fuel was out on ramp. Then, we tried to reinstall pump but could not because retaining pin and spring assembly failed.

I ask did we have to defuel but the AMM didn't call for a defuel.

## **SYNOPSIS**

A320 technicians reported the Aircraft Maintenance Manual (AMM) did not clearly provide defuel instructions for a fuel pump removal procedure. After removing the pump, fuel began to leak, spilling all over on the ramp.