

SAFETY BULLETIN

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TOOL F.O.D

INTRODUCTION

Tool control affects safety. Leaving a tool in an aircraft or engine is not just an inconvenience, it is a safety risk. Realizing this, most aircraft maintenance businesses enforce some sort of tool control procedures. Most MRO's realize that establishing and enforcing a tool control program can provide numerous benefits, the foremost of which is safety. To prevent tools from being left on or around aircraft, a certain level of control needs to be put into practice at all aircraft maintenance organizations.

POTENTIAL HAZARD AND MITIGATION ACTION OF TOOL F.O.D:

1. Tools left inside the aircraft after maintenance or servicing.

HAZARDS: Tools or other items can get tangled in control cables, jam moving parts, and short out electrical connections causing an unsafe conditions for other maintenance personnel.

MITIGATION ACTIONS: Assess your work area before, during & after the job and apply "clean as you go" philosophy while carry out necessary housekeeping.

Before Job:

- Visually assess your hangar or work area for any sign of FOD. If there is any FOD, clear it from the work area.
- Record all your tools and hardware on your tool sign-in and out sheet.

During Job:

- Every 10-15 minutes visually assess your tool and working area for any missing hardware or tools. If something is missing, immediately try and locate it.

After Completed Job:

- Confirm and sign-in all unused hardware and tools.
- Carry out housekeeping around the entire vicinity of your workspace to pick up and dispose of any FOD.

2. Tools that have been misplaced or lost in the job process.

HAZARDS: Sometimes tool crib technicians overlooked of which tools that are not being returned at the end of the day. This issue may lead to tools left in the aircraft or working area thus becoming tool FOD.

MITIGATION ACTIONS: The most effective way in our opinion to keep track of our tools before and after the job is by implementing a tool shadow board system for our tool crib. Shadow board is simply a way to outline or dedicate a certain area of your board to each tool. Think of it like creating a specific home for every tool and it will ease the work of a tool crib technician at the end of the day as they can quickly identify which tools are not returned.



3. Personnel tends to lose track of the tooling they use throughout the day.

HAZARDS: While focusing on the task, human limitations may come in place and causes them to forget. Therefore, contributes to the potential hazard of tool FOD.

MITIGATION ACTION: Every time you go to do a job, first go to your tool sign out sheet and log everything you are taking out of the tool crib. Hardware, tools, anything you name it and log-it. Once you are finished for the day, put all your tools and extra hardware away. Before you leave, go back to your tool sign out and in sheet and add the time you put the tools back. As you are filling out the sheet be sure to visually confirm the tool is back in its “shadowed” home before checking off the “confirmation” column on the right. This process is extremely important for tool accountability and preventing any unwanted FOD in the hangar. Make this a habit by doing it every single day no matter how big or small the job is.

4. Staff are not well versed on reporting procedure in case of any tool that is missing.

HAZARDS: Aircraft maintenance personnel are not aware of the current reporting scheme that are currently in place within our organization. Leading them to not report of the current situation.

MITIGATION ACTION:

In order to achieve the goal of accounting for all tools to ensure a safe product for the customer, our organization have set a procedure to report missing tool as per Workshop Department Manual 2.27 para 6.0:

- Whenever a lost / damage of tool is reported, Form no: AAe/OP/020 (Report on lost/damage tool or tag) shall be raised by the reporting staff.
- AAe lost / damage tags shall be placed at the allocated bin.
- Any lost / damage tool report, the Workshop Manager shall notify the QA and Safety Department for further action.
- If tool is suspected lost in aircraft, the matter will be reported to Department Manager and Form no: AAe/OP/020 (Report on lost/damage tool or tag) shall be raised too.
- Department Manager on receipt of the report will notify QA and Safety Department and he will issue a stop work order to facilitate a search.
- Form no: AAe/OP/069 (Notification of Aircraft Search and Clearance Report) will be raised.
- A search of the aircraft will be initiated and if tool is not found it is the responsibility of the Department Manager to proceed a clearance by filling up Form no: AAe/OP/069 (Notification of Aircraft Search and Clearance Report) and to notify QA and Safety Department.

5. Use of personal unregistered tool

Hazards: Use of personal unregistered tool will cause a huge risk if left unattended whether around the aircraft or even worse in the aircraft itself. It will surely become a tool FOD with no accountability as it is not registered.

MITIGATION ACTION: Our organization have a policy set regarding the use personal own tool as per CAAM MOE 2-6 Para 4.0 which said:

- Own tools/instruments of the Maintenance staff are not allowed for usage in AAe unless registered with the Tool crib. **These tools are limited to common inspection tools such as flash lights and inspection mirrors.**

CONCLUSION

Knowing what is FOD is the first step in preventing it in our work environment. Implementing these Mitigation actions best will make a safer working environments for all, and will also give the overall organizations a peace of mind that we are taking this preventative steps in our workplace.

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