



LACK OF RESOURCES

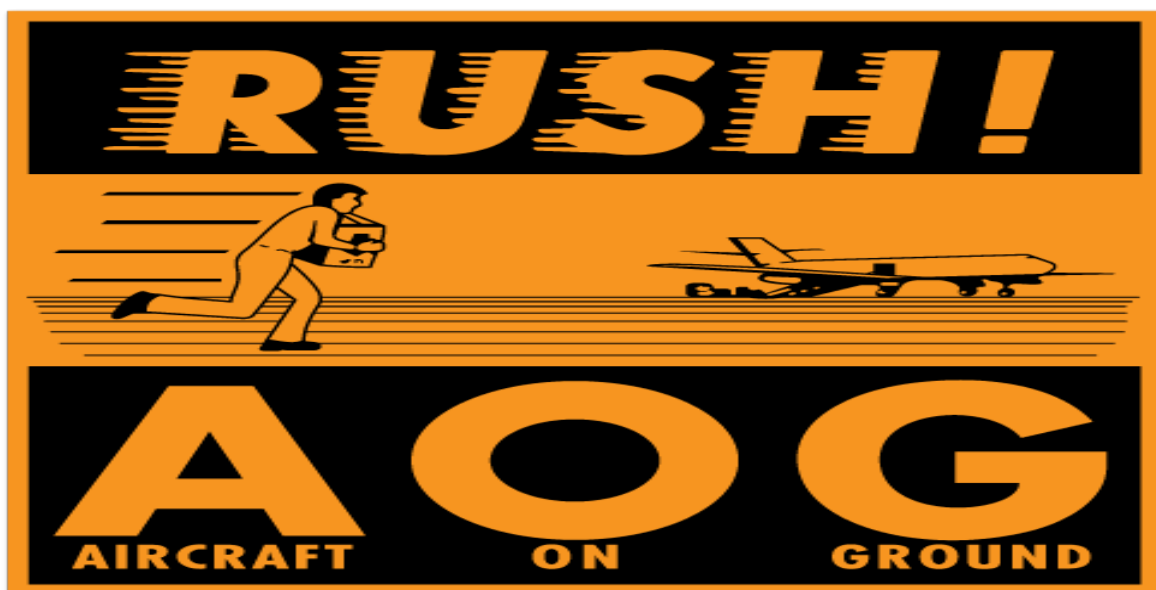
Introduction

A lack of resources can interfere with one's ability to complete a task because there is a lack of supply and support. Low quality products also affect one's ability to complete a task. Aviation maintenance demands proper tools and parts to maintain a fleet of aircraft. Any lack of resources to safely carry out a maintenance task can cause both non-fatal and fatal accidents. For example, if an aircraft is dispatched without a functioning system that is typically not needed for flight but suddenly becomes needed, this could create a problem.

PARTS AND SPARES

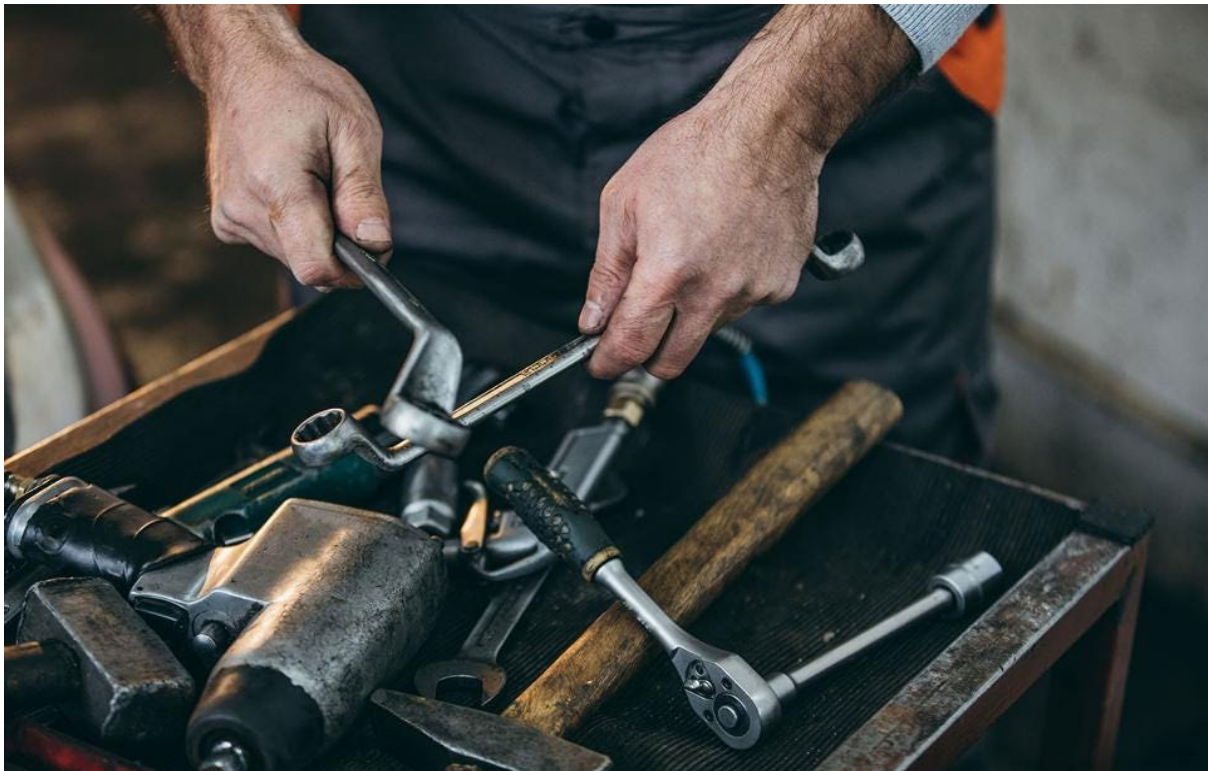
Parts are not the only resources needed to do a job properly, but all too frequently parts become a critical issue. Aircraft maintenance personnel can try to be proactive by checking suspected areas or tasks that may require parts at the beginning of the inspection. **AIRCRAFT ON GROUND (AOG)** is a term in aviation maintenance indicating that a problem is serious enough to prevent an aircraft from flying. Generally, there is a rush to acquire the parts to put the aircraft back into service and prevent further delays or cancellations of the planned itinerary. AOG applies to any aviation materials or spare parts that are needed immediately for an aircraft to return to service.

AOG suppliers refer qualified personnel and dispatch the parts required to repair the aircraft for an immediate return to service. AOG also is used to describe critical shipments for parts or materials for aircraft "out of service" (OTS) at a location. If the status of an aircraft is AOG and materials required are not on hand, parts and personnel must be driven, flown, or sailed to the location of the grounded aircraft. Usually, the problem is escalated through an internal AOG desk, then the manufacturer's AOG desk, and finally competitors' AOG desks. All major air carriers have an AOG desk that is manned 24 hours a day, 7 days a week by personnel trained in purchasing, hazardous materials shipping, and parts manufacturing and acquisition processes.



TOOLS AND EQUIPMENT

Within an organization, making sure that personnel have the correct tools for the job is just as important as having the proper parts when they are needed. Having the correct tools means not having to improvise. For example, an aircraft that had received a new interior needed to be weighed prior to being released to fly. Two days before the planned release, the aircraft was weighed without the proper electronic load cells placed between the aircraft jack and the aircraft. Because the correct equipment was not used, the aircraft slipped off one of the load cells and the jack point creased the spar. The cost of improvising can be very steep. The right tools to do the job need to be always used, and if they are broken, out of calibration, or missing, they need to be repaired, calibrated, or returned as soon as possible.



DOCUMENTATION

Technical documentation is another critical resource that can lead to problems in aviation maintenance. When trying to find out more about the task at hand or how to troubleshoot and repair a system, often the information needed cannot be found because the manuals or diagrams are not available. If the information is not available, personnel should ask a supervisor or speak with a technical representative or technical publications department at the appropriate aircraft manufacturer. Most manuals are in a constant state of revision and, if organizations do not identify missing information in the manuals, then nothing is done to correct the documentation. Resources, such as publication departments and manufacturer's technical support, are available and should be used rather than ignoring the problem.

MANPOWER

Another valuable resource that organisation should rely on is the crew or manpower. Organizations should encourage open communication between the flight crews and the maintenance crews. The flight crew can provide valuable information when dealing with a defective part or problem. Several questions that flight crews can be asked to help resolve and understand maintenance issues. When the proper resources are available for the task at hand, there is a much higher probability that maintenance will do a better, more efficient job and higher likelihood that the job will be done correctly the first time. Organizations must learn to use all the resources that are available and, if the correct resources are not available, make the necessary arrangements to get them in a timely manner. The result saves time, money, and enables organizations to complete the task knowing the aircraft is airworthy.

MITIGATING THE RISK

When there is a lack of resources available to properly fix something, a decision should be made to cease maintenance until the proper parts are available.

- Maintain a sufficient supply of parts and order any anticipated parts before they are required.
- Never replace a part with one that is not compatible for the sake of getting the job done.
- Preserve all equipment through proper maintenance.

