

# Aircraft Maintenance Facility

## Background

This aircraft maintenance client achieved an impressive turnaround.

The organisation faced extended maintenance durations, misplaced tools and a growing backlog. It really was in need of a strategic boost. This case study shows the pragmatic solutions that enabled a remarkable 78% reduction in turnaround time and a 67% boost in productivity. See how effective visual displays and systematic organisation lifted this facility to new heights of efficiency.

## Challenge

- **40 days** to conduct routine maintenance on aircraft (target was **20**)
- **100 hours** of labour to complete maintenance tasks (target was **80**)
- **15 aircraft** being worked on at any one time
- Each plane only worked on for **~2.5 hours/ day** as only **8 technicians** across 15 aircraft
- Backlog of aircrafts due for maintenance grew over time.

## Current Situation

- Floor was littered tools, oil, and waste material
- Workers complained that their tools were constantly going missing
- Workers spent up to 25% of their day looking for tools and spare parts
- Spare parts were unorganised, stored in adhoc locations.
- Part replenishment was based on judgement and "experience" of Stores manager.

## Solution

- Implemented an extensive Visual Management & 5S Workplace Organisation program which included ...
  - Re-painted floor to polished concrete look – allowed for easy identification of abnormalities such as oil spills, dropped fasteners or lost tools
  - Marked out floor colour coded tape to highlight the home location for all items in the facility
  - Created a visible home for all tools and were located immediately adjacent to the place of work
  - Spare parts were barcoded, allocated to specific aircrafts and placed in trays next to the worker executing the maintenance
  - Visual management boards were placed adjacent to aircrafts and highlighted each aircraft's maintenance status relative to plan.

## BEFORE Visual Management



## AFTER Visual Management



## Results



### Throughput time: 78% reduction

Days in hangar reduced from 40 days to 9 days (target was 20 days)



### Productivity: 67% increase

Hours labour required per aircraft reduced 100 hours to 60 hours (target was 80 hours) color