

[100% Effective]

100% Effective Case Study Lean Six Sigma and the RAF



Cpl. Jamie Peacock



RAF



Lean Six Sigma Black Belt

100% Effective Heroes

As with all investments, people want to know that the time, money and effort they spend on Lean Six Sigma will see a healthy return. As such, we are often asked about the expected benefits, savings and outcomes of training as a Lean Six Sigma Belt, along with questions of how quickly these benefits will be seen.

Of course, the answer varies depending on the individual in training, the organisation they work for and the projects they select. However, what is true for all Lean Six Sigma Belts and their projects, is that their success rates and

savings significantly increase the more they commit to the structure of Lean Six Sigma.

To give you an example of the rewards that can be achieved through proper implementation of the Business Improvement method, we have taken a closer look at one of the many successful projects achieved by our newly certified Black Belt, Jamie Peacock. A corporal in the RAF, Jamie's Lean Six Sigma projects are already saving time, money, and transforming important military procedures.

The Torque Wrench Project

£ Saving over £25,272 per year

🕒 Reduced process time by 40.5 days per year

✈ Transformed critical RAF procedures

For one such project, the goal was to reduce the time it takes to carry out the three-month calibration of torque wrenches, a vital tool in the manufacturing of laser guided weapons. The improvement project was to be completed in time for the next calibration period - which was only three months away!

Despite being faced with such a tight timeframe, Cpl Peacock's training had

taught him that there could be no wiggle room when it came to completing each of the DMAIC steps; for a Lean Six Sigma project to succeed and the benefits to be sustainable, all steps must be thoroughly completed.

With a strong understanding of the DMAIC steps and the support of Master Black Belt Mike Titchen, Cpl Peacock and his team set to work. The project plan was rigorous, no corners were cut and their meticulous efforts certainly paid off.

“

Mike really emphasised the importance of getting the finer details correct and that has helped the quality of the final product shine through.

The specific goal was to reduce the mean time of 16.5 hours per calibration, to 6.5 hours.

A Closer Look



Original Mean Time 16.5hrs

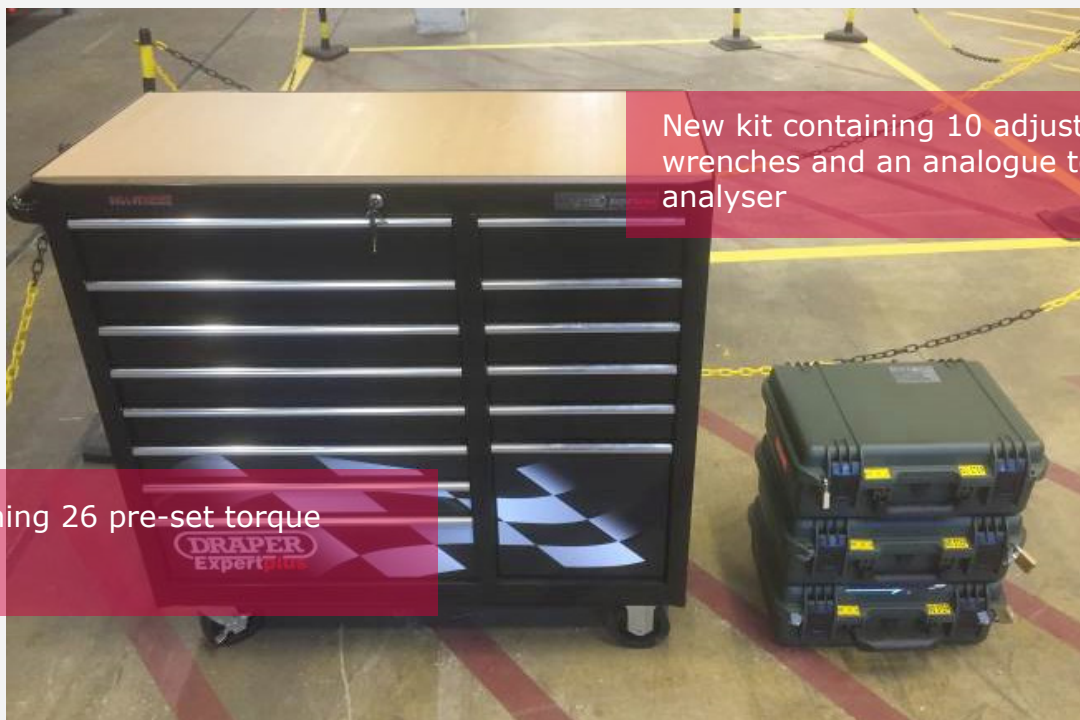
Goal Mean Time 6.5hrs

Achieved Mean Time 4hrs

Using the appropriate Lean Six Sigma tools and techniques, the project team thoroughly explored the potential issues. They eventually identified and agreed upon the specific root cause as being the high quantity of torque wrenches that required testing each time.

The next step was to find the solution, which came in the form of an adjustable wrench. With the necessary budgetary approval and having gained support from the appropriate stakeholders, prototypes

of ten adjustable wrenches were created that would replace the need to calibrate 26 pre-fixed wrenches. An analogue analyser was also included in each of the ten kits to reduce the potential for errors, and the secure and transportable container made the movement of the tools simpler and safer. Alongside this new prototype, the team also replaced the paper certification procedure with a simplified, computer-generated certificate.



Old kit containing 26 pre-set torque wrenches

New kit containing 10 adjustable torque wrenches and an analogue torque analyser

The results of the team's improvements were impressive; while the target was to reduce the calibration time to 6.15 hours, they achieved a new mean time of just four hours. After thorough control tests were completed to ensure that this time was optimum, sustainable and, most importantly, did not compromise the quality of the calibration, it was time to roll it out to the whole team.

What Happened Next?



Saving of 40.5 days each year



Annual financial saving of £25,272



Significant reduction to the cost of military flights



Increase in engineering quality



Military award for Operational Improvement

The new wrench and calibration process resulted in a total saving of 243 hours per calibration period. Taking into consideration the number of kits and the wage of the operators calibrating the tools, the project is set to achieve an annual saving of £25,272. As 20 of the new toolkits were necessary overall, the total cost of implementation equated to £16,500. As such, the team can be confident that their cost of implementation will be covered in no

time and their project will see a return on investment within the first year.

And that's not all. Other benefits of the project include a noticeable increase in engineering quality and a weight reduction of the toolkit, both of which will result in financial savings. In fact, it has been calculated that the weight of the new toolkit will consequently save £350 per military flight, of which there are around 14 each year.



However, the rewards for the project team have stretched far beyond the increased efficiency and financial benefits. The team have received high praise from senior military positions and, as project leader, Cpl Peacock's efforts and achievements have been recognised with the 2016 Ministry of Defence Operational Award.

Harriett Baldwin MP (left), Minister for Defence Procurement, presenting Cpl Peacock (right) the award for Operational Improvement at the 2016 GEMS Annual Award Ceremony

Looking to the Future

Following the great success of this project, the torque wrench toolkit has also been incorporated in the improvement of even larger scale RAF initiatives. What's more, Cpl Peacock has since been approached by other areas of the MOD to be part of their toolkit development process.

Cpl Peacock's story so far is testimony to the type of benefits Lean Six Sigma Belts can stand to achieve. And it's important to note that this is just one of many projects that Cpl Peacock has, and will, run. As a flexible and adaptable approach, wherever his career takes him, his Lean Six Sigma training will prove invaluable.

“


The support from the admin staff, as well as Mike in particular, really helped me fully understand the concepts of Lean.


“As far as the training, I only have positive words to say.” Cpl Peacock commented when asked about taking Lean Six Sigma training with 100% Effective. “The support from the admin staff, as well as Mike in particular, really helped me fully understand the concepts of Lean.”

And with our lifetime support guarantee, Cpl Peacock can rest assured that he will continue to benefit from our guidance throughout his career. With several accomplished projects already under his belt, we are truly looking forward to seeing and supporting his future success stories.

The new toolkit is secure, lightweight, and easy to transport



 @100pcEffective

 /100pceffective

 /company/100-effective-training-ltd

100% Effective

Copyright 100% Effective Ltd
www.100pceffective.com | 0800 066 3749