

THE Connector

COMMERCIAL OUTLOOK 2020/2021

Ian Rowe - Commercial Director, FGP Systems, FGP Lufton & RSC

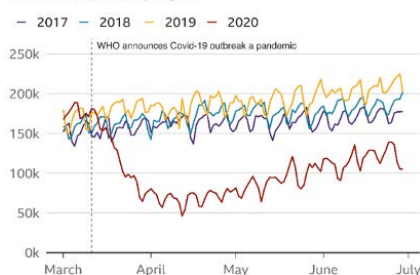
COVID 19 & THE MARKET IMPACT:

Whilst all our lives have changed and will continue to change since March 2020, we should firstly recognise and celebrate how the FGP Group has stayed Safe and Operational during what will go down in history as one of the major impacts to both human lives and the Global economy.

Some Markets such as the Pharmaceutical, Medical and Fast Moving Consumer Goods (FMCG) have seen substantial growth here, whereas Retail, Entertainment, Airlines, Tourism and Travel have seen significant reductions in business. Airline flights were down 95% at its peak in mid-April, but passenger flights have increased steadily since then plus Airbus are still maintaining a build rate of 40 Single Aisle Aircraft per month based on their market confidence. Several Operators have also chosen to accelerate the scrapping of both their aged and less efficient 4 engined aircraft such as the Boeing 747, A340 and even the A380 which only entered service 12 years ago.

Flights picking up again

Number of total daily flights



WHAT DOES THIS MEAN TO THE FGP GROUP?

Some of the Commercial Aerospace Orderbook Demand softening we are experiencing was coming regardless of COVID 19, this has just accelerated the softening, with demands being rescheduled out to late 2021. Good news being the demand has been rescheduled out rather than cancelled.

As regards to the Defence Aerospace Orderbook Demand, good news here in that this has in fact held up very well. Primarily due to ongoing Global Security threats plus Defence budgets were already allocated and in place prior to COVID 19.

WHAT IS THE FGP GROUP DOING TO PROTECT THE BUSINESS?

Reviewing our operating costs and conserving cash has and will continue to be a key priority. Like-wise we are pursuing several new business opportunities. Some will continue to be in the Aerospace sphere, but others could be across totally different markets such as Medical, Fighting Vehicles, Marine and Avionics Housing applications.

WHAT WILL THE FUTURE HOLD FOR THE FGP GROUP?

The future will hold whatever we want it to hold. Despite the impact from COVID, we have set course on a 3-year Strategic Plan that will both grow and future proof the business. Opportunities will abound as we continue to recover and come out of COVID, we just need to be diligent and innovative in aligning the business to these opportunities.

WHAT CAN I DO TO HELP HERE?

Firstly, we will need to continue to stay safe until a vaccine has been proven. Then in our day to day we need to ensure that the business continues to perform and demonstrate further agility around the execution of the new business opportunities. We need to be AGILE not FRAGILE!



3D PRINTING FACE SHIELDS

James Bishop - Head of Planning, FGP Systems & FGP Lufton

In April 2020 FGP quickly purchased a 3D printer to support with the on going pandemic of COVID 19. With the use of the Printer and in-house router, FGP was underway.

Utilising a free design by Prusa, FGP has manufactured 80+ face shields to support local businesses on their return to work. Ranging between Pubs, Hairdressers, schools and personal use.

With 3D printing being so versatile there are many applications that FGP can use the printer for. As well as the Face Shields, the printer has already produced masking aids for RSC and a gauge tool to support automation.



Supported materials – PLA, ABS, PET, HIPS, Flex PP, Ninjaflex, Laywood, Laybrick, Nylon, Bamboofill, Bronzefill, ASA, T-Glase, Carbon-fiber enhanced filaments, Polycarbonates.

- Future uses could include:
- Inspection Fixtures
- Assembly fixtures
- Tapping Fixtures
- Masking Aids
- Machining Fixtures... and much more!



Gary Northway - Head of Group Quality
David Brigg - Quality Manager FGP Lufton & RSC

GROUP SUSTAINS SUCCESS IN 2020

In these challenging times we all need to ensure we do not take our eye of the ball and ensure our high-quality standards we have set ourselves are maintained and continually exceeded. To maintain and surpass the high bar we have set takes all of us to pull together, communicate and still be diligent in going about our daily tasks.

In 2020 this has been demonstrated across all 3 sites with key NADCAP & AS9100 audits being conducted under strict social distancing conditions achieving ZERO findings across the board. In the case of FGP Lufton's NDT audit we have now completed the criteria to achieve merit status meaning we now have 18mths until the next audit. Next target is the 24-month audit period.

Systems have completed the majority of their AS9100 audit and have had no findings, this has been carried out with what appears will be the standard for communicating into the future – live video conferencing. This brings a new dimension to auditing and its own set of challenges! Along with a great accreditation audit for FGP Systems we have had very positive feedback from numerous customers including Martin Baker (World's leading manufacturer of ejection seats) "Well

done to all at FGP for this very positive audit score/result, and the hard work to achieve such a high scoring result."

RSC have continued their great record in there AS9100 and NADCAP audits in 2020 with zero findings and only a handful of findings respectively – again leading to being on the NADCAP merit scheme – another 18mth audit period! Along with the audit good news stories RSC have obtained continued registration with the JOSCAR (Joint Supply Chain Accreditation Register) organisation. JOSCAR is a collaborative tool used by the aerospace, defence, and security industry to act as a single repository for pre-qualification and compliance information.

During the first half of 2020 QA have revised and streamlined the structure of the quality departments across all three sites, in conjunction with this we have consolidated and standardised many of the company's individual processes and documentation. The above and continued investment into the latest measurement technology has helped reduce customer rejects across group by over 15% year on year with a 50% reduction seen over the last 3 years.



Derek Smith - Operations Director, RSC



Following the return of the “new” normality, RSCL has now started to gain momentum, the introduction of the new plating lines is starting to take shape and all major plant is now on order and in manufacture.

RSC are introducing an evaporator, this will have huge savings on waste water treatment. This plant is completely computer based for continuous operation

and will handle most of RSC’s wet waste, its low energy cost and low CO2 footprint makes this an ideal addition to our treatment department.

Electroless Nickel and Zinc Plate will open us up to new substrate coating, which in itself will open us up to markets involving Defence Vehicle structures and the like.

WHAT IS ELECTROLESS NICKEL PLATING?

Electroless Nickel-phosphorous plating is a chemical process that deposits an even layer of Nickel phosphorous alloy on metals or plastics. The process involves dipping the substrate in a water solution containing nickel salt and a phosphorous-containing reducing agent, usually a hypophosphite salt. It is the most common version of electroless nickel plating. Electroless nickel is used in many industrial applications, especially aerospace and electrical, is used for Prevention of Corrosion or wear, and in some cases just cosmetic.

WHAT IS ZINC NICKEL PLATING/ZINC PLATING?

Zinc Nickel Plating is one of the best corrosion resistant finishes available offering over 5 times the protection of conventional plating and up to 1,500 hours of neutral salt spray test performance. This plating is a combination of high-nickel alloy and some variation of chromate, used to protect Steel, Cast Iron, Brass, Copper etc.

Zinc coatings prevent oxidation of the protected metal by forming a barrier and by acting as a sacrificial anode if the barrier is damaged. Zinc oxide is a fine white dust that does not cause a breakdown of the substrates surface integrity as it is formed. The Zinc oxide can act as a barrier to further oxidation, in a similar way to the protection afforded to Aluminium and stainless steels by their oxide layers. The majority of hardware is now zinc plated, rather than the more hazardous Cadmium plate.

WHAT IS HARD ANODISING?

Hard anodising is very similar to sulphuric anodising, but produces a thicker oxide layer and therefore increased corrosion resistance and increased wear resistance compared to standard sulphuric anodising. A thickness of 20µm to 70µm can usually be achieved with this process, with thickness up to 100µm possible on some aluminium alloys. Hard anodising is sometimes referred to as hard coat or Type 3 anodizing in North America.

- Excellent corrosion resistance
- Improved hardness and wear resistance
- Scratch resistant
- Cost effective
- 20 to 100µm coating thickness

Specifications & Approvals

- Mil-A-8625 Type 3
- Def Stan 03-26
- NGPS 37

WHAT IS TITANIUM ANODISING?

Anodising titanium is a process that adjusts the oxide level of metal surfaces. This adjustment changes the spectrum of light, resulting in perceived colour. By precisely controlling the surface oxide level, an entire range of colours can be produced.

The process provides the advantages of hardening and colouring the surface of titanium components without altering the mechanical properties of the metal. Imparting lasting colour to a component’s surface allows the easy identification of devices and parts.

Titanium is an extremely hard, durable metal used in a variety of applications. Anodising titanium is a specialised capability which is not standard throughout the metal finishing industry. It is, however, essential to engineers and manufacturers who are relying more and more on the strength and applicability of titanium products in today’s high-tech markets.

Specifications & Approvals

- FEIS 112
- AMS 2488
- ISO 8080



TRAINING CENTRE NEWS: NEW TECHNOLOGIES

Andrew Johnson



GETTING TO GRIPS WITH THE LATEST TECHNOLOGY

In February we had a few members here from X-stk who brought with them the UR3 robotic arm as shown. They showed the apprentices a variety of commands that can be demonstrated by the UR3 robot. The tablet was the main control center for the robotic arm.

At the press of a button simple and complex command signals would be sent to the robot so it could perform the task at hand. The UR3 is the lightest table-top robot (11kg) offering unrivalled flexibility and positioning accuracy in a compact form. It is perfectly suited for automated precision tasks up to 3kg and has a footprint of 118mm. It is force sensitive and can be set to stop immediately when it encounters a force as low as 50 Newton.

First of all, the apprentices were given a short introduction and demonstration on how to operate the robot arm. With a bit of practice as a team they learnt how to pick up, move and place an object in a sequence of operations. With more practice the tasks became more complex. One of the final tasks was to program the robot to pick up, move and spray a deodorant can. This taught the team how to adjust the depth and pressure of the handling gripper in a controlled manner.

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A LITTLE BIT OF BACKGROUND...

At Universal Robots, we constantly strive to make the advantages of collaborative robots (cobots) in the workplace accessible to all. With Universal Robots Academy's online modules, we've lowered the automation barrier by making core programming skills available to cobot users regardless of their robotics experience or backgrounds.

SECRET
SEVEN



Gary Northway
Head of Quality

Favourite 90's show?

So many, I'm going with Gladiators

First Job?

My first ever job was working as a Kitchen Porter at a hotel in Torquay and my first job in engineering was as a Manufacturing Engineer at Northern Telecom.

When you're not working, how do you spend your time?

Surfing, Squash, Cycling, Guitar, Fishing

Favourite subject at school?

Technology

What is your hidden talent?

Martial Arts - 2nd Dan Ju Jitsu, 1st Dan Kickboxing, 5th Gup Taekwondo

Something you say you'll do, but never do?

Visit old friends from far away

What is the best fancy dress costume you've worn?

Pirates (on a canal boat through Bath)

MANAGING CHANGE WITHIN GROUP

Paul Clark - Operations Director, FGP Systems & FGP Lufton

The challenge following the transformation of FGP Systems & FGP Lufton into a single manufacturing entity operating with shared resource and capability whilst also promoting People and Process development across both sites.

AREAS OF FOCUS:

- Performance (Past Due) → Communication Flow
- Operating systems / SCIPe → Empowerment / Standard work.

HOW:

Establish standard work & Processes within Operations, ensuring Robust and repeatable results, ensure a consistent work approach with all customers, mitigate reliance on hidden factory / knowledge is power culture. Applying Bruce Tuckman Forming-Storming-Norming-Performing model (see below) all process steps necessary and inevitable in order for team development, problem solving, work planning and ultimately drive results.



FORMING

Team acquaints and establishes ground rules. Formalities are preserved and members are treated as strangers

TEAM FULLY INTEGRATED

STORMING

Members start to communicate their feelings but still view themselves as individuals rather than part of the team. They resist control by group leaders and show hostility

ESTABLISHED STANDARD WORK

NORMING

People feel part of the team and realise that they can achieve work if they accept other viewpoints

WEEKLY OPEN REVIEW - IMPROVEMENT

PERFORMING

The team works in an open and trusting atmosphere where flexibility is the key and hierarchy is of little importance.

PERFORMANCE LEVELS INCREASED

“ The secret of change is to focus all of your energy not on fighting the old, but on building the new! ”

Socrates

ESTABLISHED GROUP STANDARD OPERATING SYSTEMS

- Order book Deep Dives
- Manufacturing flow down
- Forward planning deliveries
- Past due recovery
- Team & Systems development



Project People



Kerry Weaver - Group HR Manager, FGP Systems, FGP Lufton & RSC

The FGP Group is transforming the HR function across our businesses and we have called this work Project People. It is designed to streamline and standardise our HR processes and policies, and to provide a more efficient, modern, and legally compliant HR service to all employees. This change has been planned for some time and is not related to the COVID19 crisis.

A key element of this project is the introduction of SAGE People, a digital app that will be linked to personal files and the payroll system. When SAGE People goes live we will all have access to the system to see personal records, enter leave dates, record sickness and other notifiable events.

Personal data will of course be secure in accordance with GDPR regulations. Project People is being run by myself and Harmony, with oversight from Wayne Churchill. We have been working on this in the background for several weeks and we are at the point where

the Project will start to impact on departments and individuals. This will require some attention and time from all of us in the next couple of months, but it will remove a lot of unnecessary administration from the business, giving the HR team more time to focus on you, our people.

Part of the project is reviewing employment contracts for everyone in the business. At present these are not of the standard we would like, vary between our three sites and are unfit to take us into the future as the business develops and grows. All contracts are now being rewritten and updated to take account of changes in the law. We are a precision engineering company and we need the same precision in our people systems. We are excited for what the future will bring and look forward to spending more time on our people.



MICROSOFT 365 ROLLOUT



Microsoft 365

Craig Phillips - Business Development Manager, FGP Systems & FGP Lufton

Over recent weeks, FGP Systems and Lufton have been migrating our current office software and mail environments to Microsoft 365.

With cloud-based file stores and improved functionality for shared documents, Microsoft 365 offers us new ways to collaborate on documents not just internally, but externally too. It enhances file backup and recovery procedures, and brings improvements to our remote working capabilities, beneficial when visiting customers, suppliers, and working

between sites. There are new tools, features, and shortcuts waiting to be discovered.

Microsoft Teams is also being deployed as part of this rollout. While its conferencing and communications tools are already seeing lots of use during the lockdown, it has the potential to greatly improve the way we manage group projects and structure our PC based standard work. Through use of addons and a clever automation suite called 'Flow', businesses are still learning and have barely scraped the surface on how Teams can help improve productivity within the office.

However, despite these advantages, the main driving factor for these changes is once again: Security.

Our email access has been secured behind three-factor authentication. This means even if your username and password falls into the wrong

hands, the cybercriminal will still be unable to access your mail. It is a considerable leap forward in IT security for FGP.

Additionally, all emails are now scanned by a pioneering mail defence system called Vade. The results so far have been very positive. Emails that would have previously entered staff's mailbox have been caught and appropriately discarded. Users can now have more confidence that the intent of an email is as it says, and any attachments/links are safe.

Nevertheless, please remain diligent! There is no substitute to good IT practices and early reporting in cases of a suspected cyber-attack. Just as before, if something concerns you with an email, please ask IT to help determine if it is safe.



JOB VACANCY

Junior Inspect / Dispatch Packer

The Junior Inspector / Dispatch Packer will assist production by inspecting completed product to ensure compliance. Also ensuring items are packed sufficiently to customers' requirements for transportation.

- 40.5 hours per week
- Monday to Thursday / 7.30am until 5.00pm
Fridays / 7.30 until 12.00pm
- Lunx Trading Estate, Yeovil



To apply please submit a CV and covering letter to hr@fgpltd.co.uk

THE Connector



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