



**Aerospace supply chain companies help fight off
the effects of Coronavirus on the economy:
*MAA survey 2, 26th and 27th March 2020***

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This study

These are the results of a continuing survey of a panel of 20 Midlands aerospace suppliers into the impact of the Coronavirus outbreak in a key UK regional manufacturing cluster. The panel represents both manufacturers of aircraft parts and companies that provide specialist services to the manufacturers. We have set the panel up to help us monitor the impact of the Coronavirus outbreak, share the knowledge across the industry and with relevant authorities, and identify how best the alliance can support member companies.

The first MAA Coronavirus survey was conducted on Thursday and Friday 19th and 20th March 2020. These are the results of the **second survey**, conducted on Thursday and Friday 26th and 27th March 2020.

The MAA's own media searches have noted this relevant news from some big aerospace customers published in recent days, which provides useful context.

North America

- Boeing expects to receive big emergency loans, around \$17bn, from the US government (CNN). (Andrew Mair: last week Airbus announced it would not seek government support for itself.)
- Several large aerospace companies have announced there will be no shareholder dividend (Bloomberg).
- Safran Cabin has suspended 1,500 low-paid employees at its Washington State facilities without pay (Seattle Times)
- Bombardier has suspended aircraft production until 26th April (Montreal Gazette)

Europe

- Safran in France stopped engine production for four days last week to reorganise and has re-started. It hasn't reduced engine deliveries to Airbus and doesn't intend to (Les Echos de la Bourse).
- Rolls-Royce has announced a one-week closure of its civil aerospace manufacturing facilities. "This would allow the group to confirm the effectiveness of safety measures taken to protect employees from the virus and allow it to 'sustain modified operations and activities over a longer period'" (Financial Times).

Highlights of the second MAA survey

In sum, the second survey

- reveals that some parts of the industry are continuing to produce at high rates, while other supply chain segments are increasingly being hampered by the impact of Coronavirus;
 - gives us a clearer window onto aerospace customers and suppliers rolling out their business continuity plans; we'll be able to judge the effectiveness of these at a later date.
1. Some customers are urging their suppliers to continue to produce parts. Other customers are reporting their own temporary closures. "Little communication" is still a prominent feature of Week 2.
 2. Customers are monitoring not only the levels of production suppliers are achieving but also supplier risk mitigation actions, so that in a turbulent environment they can gauge for themselves the likelihood supplier forecasts will be accurate. A significant proportion of customers are still pressing for full supplier commitments to be delivered.
 3. There is a mixed picture emerging with respect to lower tier supply chains, with many Midlands companies experiencing no disruptions from their own suppliers, while the same proportion are experiencing -- or expecting -- disruptions to deliveries of parts and materials to them.
 4. A wide array of other issues is raised, related to staffing, cashflow, supply chain disruptions and confusing government announcements that create extra work.
 5. Most actions companies on our panel are undertaking relate to the reorganisation of work in order to strengthen health and safety measures, and managing relationships with employees.
 6. A variety of production levels, compared to pre-Coronavirus levels, is reported by manufacturers. There appear to be output tail-offs now due to many of the factors reported in answer to previous questions (e.g. staff availability, interruption to supplies).
 7. The clearest request of government is to be accurate with words and ensure words are followed by corresponding actions.

8. Survey respondents ask the MAA to concentrate on applying its core capabilities to the current situation: information and communication, sharing best practice, connecting members and showing positive leadership.

Midlands aerospace Coronavirus survey

To understand the effects the Coronavirus outbreak is having on the Midlands aerospace cluster, and how companies are responding, on Thursday 19th and Friday 20th March, then again on 26th and 27th March, the Midlands Aerospace Alliance set up a panel of 20 representative aerospace suppliers for an impact survey; with a view to repeating the exercise at future intervals. These twenty companies may serve as front-line bellwethers, early indicators, of what is happening across the UK aerospace industry. The knowledge generated from the survey is being shared with the MAA's 300 member organisations and with the relevant local, regional and national authorities with a view to helping all parties make the best possible decisions for people, companies and communities.

The panel includes manufacturers supplying the likes of Boeing, Airbus, Rolls-Royce, Collins Aerospace and Leonardo and the first-tier suppliers to these companies. The manufacturers have both regional and global customers and both regional and global supply chains. The panel also includes a number of the specialist service provider companies that are integral parts of the aerospace cluster and play a vital role in "oiling the wheels of industry."

The survey questions (second survey)

1. What kinds of information are your customers giving you?
2. What information are your customers asking you for?
3. Do you have issues with your own suppliers?
4. Do you have other issues/challenges? Please list up to three.
5. What policies are you adopting (in the supply chain, with working patterns, with employees)
6. What is your level of activity/work currently compared to pre-Coronavirus? (estimate is fine) (new question)
7. What do you most need government to do?
8. Please suggest ways the MAA can help companies like yours? (new question)

Second survey results in detail

1. What kinds of information are your customers giving you?

Some customers are urging their suppliers to continue to produce parts. Other customers are reporting their own temporary closures. "Little communication" is still a prominent feature of Week 2.

Starting with points most frequently mentioned, survey respondents report as follows:

- Very little communication (reported by 40% of companies)
- The customer is closing temporarily (40% report at least one customer is closing)
- Asking us to keep working (30%)
- Are we open/ closed?
- What are our staffing and shift patterns?
- Giving us instructions on what parts to prioritise making

Other communications from customers include: logistics information (about third party carriers); new projects deferred for several months; minimise outgoing cash.

2. What kinds of information are your customers asking you for?

Customers are monitoring not only the levels of production suppliers are achieving but also supplier risk mitigation actions, so that in a turbulent environment they can gauge for themselves the likelihood supplier forecasts will be accurate. A significant proportion of customers are still pressing for full supplier commitments to be delivered.

Again starting with points most frequently mentioned, survey respondents report as follows:

- Are we still operational and at what level and how? (60% monitoring)
- What are our internal workplace precautions? (40%)
- Can we deliver our commitments to them? (30% still pressing)
- How are we managing our supply chains?

Other points: some report there is now better two-way communications with customers after some days of interruption.

3. Do you have issues with your own suppliers?

There is a mixed picture emerging here too with respect to the lower tiers of supply chains, with many Midlands companies experiencing no disruptions from their own suppliers, while the same proportion are experiencing or expecting disruptions to deliveries of parts and materials to them.

Starting with points most frequently mentioned, survey respondents report as follows:

- No/ not yet (40%)
- Suppliers have commenced or plan temporary shutdowns (40%)
- Problems with supplies from abroad (e.g. Italy)

Other responses include: suppliers in throes of reorganising and can't therefore currently give commitments; unrealistic plans from suppliers that commit to deliver yet tell us about their own changes that will clearly prevent this; some suppliers not delivering to plan; not responding when contacted; suppliers increasing production to make sales quickly and bring in cash.

4. Do you have other issues/challenges?

A wide array of other issues is raised, related to staffing, cashflow, supply chain disruptions and confusing government announcements that create extra work.

Starting with those most frequently mentioned, the issues are:

- Managing impacts of high levels of absences now experienced/ expected (25% of companies report this specifically)
- Cashflow concerns; e.g. will customers be able to pay for parts that are delivered?
- Staff morale when government messaging confusing, keeping staff positive
- Sustaining deliveries as our suppliers close
- Time spent unpicking government's ambiguous announcements and dealing with different interpretations by staff
- It is hard to maintain communications remotely; e.g. IT issues

Other points made include: it takes longer to solve problems in this new environment; large amount of time spent keeping abreast of changes internally and externally; shippers telling us overseas shipments are being held up; school closures have serious impact on staff availability; choosing which manufacturing lines/ sites to focus on keeping open; planning for long term impact of today's problems; sales of our equipment have dropped off; maintaining the 2m rule in the factory.

5. What policies are you adopting (in the supply chain, with working patterns, with employees)?

Most actions respondent companies are undertaking relate to the reorganisation of work in order to strengthen health and safety measures, and managing relationships with employees.

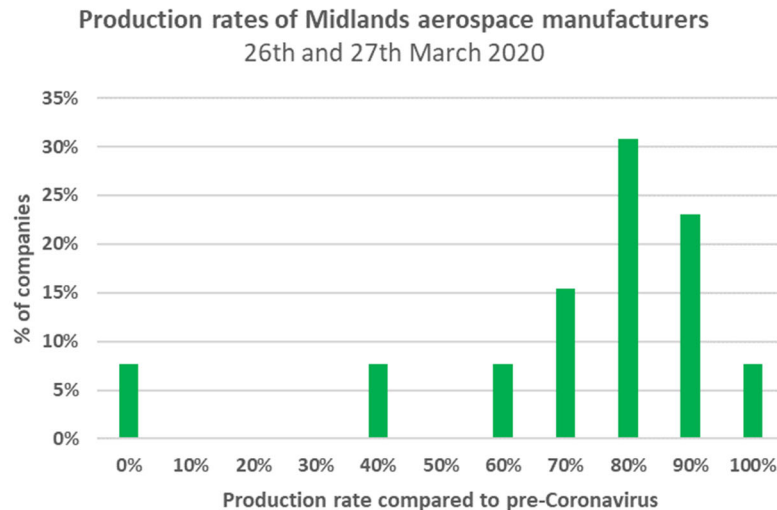
These include, again starting with those mentioned most frequently:

- Social distancing (75%)
- Remote working including upgrading networks (60%)
- Sanitising workspaces (40%)
- Increase level of communications
- Be as flexible as possible with employees
- Closure of some facilities

Other actions include: continuity planning, mental health initiatives; keep in contact with supply chain; speeding up deliveries to help with cashflow.

6. What is your level of activity/work currently compared to pre-Coronavirus? (estimate is fine) (new question)

A variety of production levels, compared to pre-Coronavirus levels, is reported by manufacturers. There appear to be tail-offs of output now, due to many of the factors reported in answer to previous questions (e.g. staff availability, interruption to supplies).



Asked to comment on their reported production rate, some companies said that customers are still expecting the same output levels to be continued. However, more companies commented that they do not expect current rates to be sustainable, because even a small number of bottlenecks will gradually propagate and disable the wider production system.

7. What do you most need government to do?

The clearest request of government is to be accurate with words and ensure words are followed by corresponding actions.¹

- Make sure words and actions match (too many examples where they don't) (45%)
- Inject cash into system, reduce business costs further (beyond staff furloughs)
- Keep up high level of communications
- Prioritise widespread testing including in industry

Other points made include: consider total temporary lockdown; recognise positive government actions; need to plan for the recovery.

8. Please suggest ways the MAA can help companies like yours? (new question)

Survey respondents ask the MAA to concentrate on applying its core capabilities to the current situation: information and communication, sharing best practice, connecting members and showing positive leadership.

- Keep information flowing (45%)
- Communicate with government
- Research and share best practice in current situation
- Connect members for opportunities
- Promote positivity

¹ A more detailed report we have compiled from the survey results reflecting how government actions are viewed from the "industry front line" is being communicated to government bodies separately.

Other comments: continue the excellent work; keep safe and well for the long term future; perhaps some form of register of who is still operating and who isn't; push for tests in companies; refrain from criticism of government and or policy (leaders and people will make mistakes as we go through this, it is inevitable. recognise positive intent and a sense of the scale of this task, we are all doing our best in an uncontrollable and dynamic situation, we will succeed by getting in the trenches with one another).

The MAA view

According to Dr Andrew Mair, Chief Executive of the Midlands Aerospace Alliance:

“Like our 300+ member organisations, it’s our job to do everything we can in the current situation. Several of our member companies are supporting the national initiative to make intensive care ventilators by manufacturing parts. This second survey reveals how the effects of the Coronavirus are starting to permeate industry supply chains. Companies are prioritising the health and safety of their employees, and some lower-tier supply chains are beginning to seize up. So it is not surprising that output levels are now being affected.

We will be sending industry feedback about government policy directly to government agencies. Generally, manufacturing supply chain companies are pleased with the big scale of government announcements, and frustrated when recommendations are unclear or actions don’t follow quickly.”

Annex: Midlands aerospace before Coronavirus

The aerospace sector is one of the UK's flagship manufacturing industries, and the Midlands region is home to one of the world's biggest aerospace business clusters. The cluster is centred on aero-engine maker Rolls-Royce and big makers of sophisticated aircraft systems such as Collins Aerospace, Moog Aircraft Group and Meggitt. More than 300 supply chain companies, both manufacturers and providers of specialist services, are rooted deeply in the region's historic engineering base.

The Midlands aerospace industry has grown rapidly between 2005 and 2020, with output doubling and employment increasing by more than half. This growth has been fuelled by high-technology and precision engineering companies ramping up components production to meet global demand for the new more fuel-efficient aircraft that the global giants Airbus and Boeing are producing whilst investing in developing new technologies that can make aircraft lighter and consequently greener.

More recently, a number of uncertainties have been clouding the aerospace industry horizon. Boeing has temporarily ceased production of its best-selling 737 MAX aircraft after fatal crashes revealed a major design flaw, Rolls-Royce has experienced technical problems requiring redesigns and replacement of parts on one of its new engines. Meanwhile, the advent of Brexit has creating unwanted uncertainties for the industry about future trading patterns and the competitiveness of the UK as a location in the world economy.

By early 2020, these headwinds were already placing strains on aerospace supply chain companies that simultaneously were making significant investments in order to expand their production and R&D capacities. The Coronavirus outbreak is therefore hitting an economically healthy but financially stressed aerospace cluster.

Annex: highlights of first survey (19th and 20th March)

1. Big aerospace customers are not yet giving much information to suppliers or changing their order books. Service providers are using their informal personal connections with customer staff to identify the latter's reactions to the Coronavirus outbreak (e.g. restructuring of shift patterns).
2. Aerospace customers have heightened their close monitoring – and are encouraging continuity -- of the supply of parts from their suppliers.
3. Manufacturers are already identifying red-flag issues when their customers or their own suppliers -- in Italy, for example -- have now had to stop work.
4. The key current issues that manufacturers raise relate to their staff and the organisation of work in their factories so that the huge globalised aircraft production systems in which they play small parts can keep functioning. Issues faced by service providers focus more on short-term revenue and cashflow problems already raising questions about the survival of some companies, because many of their projects are easier for customers to delay or switch off – and this is happening.
5. For three weeks, since early March, both manufacturers and service providers have been steadily putting in place sophisticated human resource management and work organisation policies so they can protect employee health and safety while maintaining business activity.
6. Both manufacturers and service providers want government bodies a) to be more decisive in terms of actions to reduce the impact of the Coronavirus outbreak, and b) to offer financial support to industry to keep capability intact and keep staff employed if and when manufacturing has to be halted.