



Aerospace

Aerospace Industry Trends: What COVID-19 Means for Manufacturers and Suppliers

Tam Harbert | Apr 14, 2020

As contagious as the COVID-19 virus is, the aerospace supply chain has yet to feel its full impact. But it won't be long before the fever starts, analysts say. Here's how the global aerospace industry can manage through this unprecedented crisis.

Already suffering from the stoppage of the Boeing 737 MAX jet, aerospace industry suppliers are now facing the ripple effects of reduced air travel, plummeting airline revenues and the resulting deferral of orders and deliveries of aircraft.

The International Air Transport Association (IATA) estimates at least a 39 percent decrease in passenger traffic for 2020, with *airline revenues that will be \$252 billion lower than in 2019*. The most severe impact will be in the second quarter, with revenues expected to be down 68 percent compared with the same quarter one year ago, says IATA.

"We are in a massive pump-the-brakes situation."

Peter Zimm

Principal, Charles Edwards Management Consulting

With so few routes operational, "We are in a massive pump-the-brakes situation," says Peter Zimm, principal at Charles Edwards Management Consulting, a consultancy and market research firm focused on the aerospace industry.

When Will Coronavirus Cut Into Aerospace Revenue?

As of early April, a few impacts on the aerospace supply chain were apparent. But observers warn that suppliers should brace themselves for greater blows.

"A lot of suppliers—machine shops and assembly and fabrication companies—already had a significant amount of their revenue tied to the 737 MAX, so this is definitely going to compound the problems for them," says Glenn McDonald, senior associate at AeroDynamic Advisory, a boutique consultancy on the

aerospace industry.

Who Are the Critical Manufacturing Workers?

In its *Guidance on the Essential Critical Infrastructure Workforce*, the U.S. Department of Homeland Security notes the following for manufacturing:

- Workers necessary for the manufacturing of metals (including steel and aluminum), industrial minerals, semiconductors, materials and products needed for medical supply chains, and for supply chains associated with transportation, energy, communications, information technology, food and agriculture, chemical manufacturing, nuclear facilities, wood products, commodities used as fuel for power generation facilities, the operation of dams, water and wastewater treatment, processing and reprocessing of solid waste, emergency services, and the defense industrial base.
- Workers necessary for the manufacturing of materials and products needed to manufacture medical equipment and personal protective equipment (PPE).
- Workers necessary for the mining and production of critical minerals, materials and associated essential supply chains, and workers engaged in the manufacture and maintenance of equipment and other infrastructure necessary for mining production and distribution.
- Workers who produce or manufacture parts or equipment that supports continued operations for any essential services and increase in remote workforce (including computing and communication devices, semiconductors, and equipment such as security tools for Security Operations Centers (SOCs) or datacenters).

Unless they have a COVID-19 outbreak at their facility, most shops are probably still operating, even if their state has a shelter-in-place order. That's because most shops would be considered essential businesses under the *Department of Homeland Security's Cybersecurity and Infrastructure Security Agency (CISA) guidelines*, notes Omar Nashashibi, founding partner of The Franklin Partnership LLP and head of government relations for One Voice, the advocacy program of the Precision Metalforming Association and the National Tooling and Machining Association. Initially there was confusion over what was considered essential business and critical infrastructure, but now most states are following CISA guidance, he adds.

Pivoting to Medical Machinery

Whether these shops can afford to stay open likely depends on how much, and how quickly, funding from *the Coronavirus Aid, Relief, and Economic Security (CARES) Act* trickles down through the supply chain.

Signed into law in late March by President Donald Trump, the legislation delivers \$2 trillion in relief to commercial businesses and workers. It includes \$377 billion in small-business loans and \$500 billion in loans, loan guarantees and other investments for passenger airlines, cargo air carriers, businesses deemed "important to maintaining national security," and states and municipalities. One condition of those loans is that the borrower retains 90 percent of its workforce until Sept. 30, 2020.

If aerospace orders dry up, some suppliers may try shifting to another market: selling parts for ventilators. President Trump has invoked the Defense Production Act to draft large companies like General Electric Co. into making ventilators to meet the looming medical needs. According to Nashashibi, some automotive suppliers have already switched to making ventilator parts.

"Aerospace, defense and medical device markets are somewhat similar in that they require specific levels of security, safety and certifications," he says. "So, if you're in aerospace and you are making parts to those levels of precision, you may be able to adapt your machinery and manufacturing processes to do medical devices as well."

Read more about handling the COVID-19 crisis: "Coronavirus and Workplace Safety: How to Manage Employees During a Pandemic."

Coronavirus Tips for the Manufacturing Industry

Meanwhile, experts say these tips should help suppliers in all industries looking to weather the COVID-19 crisis:

- Conserve cash.
- Consult with your attorney to consider a force majeure notice. If you or your suppliers are impacted by a shelter-in-place order, or if employees are unable to work because of the spread of COVID-19, consider giving the appropriate notice to your customers, Zimm says. That could help mitigate any late delivery charges.
- Identify orders that are essential and therefore unlikely to disappear. Orders for medical devices or electrical transmission, for example, ***are considered critical infrastructure*** according to the Cybersecurity and Infrastructure Security Agency (CISA), and so customers ordering them are likely to remain in business and able to pay their bills.
- Prepare proof for local authorities that your business is essential and critical. In ***a recent webinar***, Hale Foote, president of Scandic Springs, a spring and stamping company in Northern California, suggested creating a list of jobs and the employees who perform them to show why they must be on the factory floor. He also suggested posting letters from brand-name customers that illustrate where your parts are used (in Foote's case electrical systems at the Cleveland Clinic and at Walter Reed National Military Medical Center).
- Zimm advises using periods of downtime to clean up your processes: align your MRP system; validate your inventory; clean up your work orders.
- Carefully coordinate schedules with your suppliers and customers, Zimm adds. During the crisis, and even after a recovery starts, normal supply chain functions will be disrupted. Some suppliers may be ready to ship, and some will not. "You can only go as fast as your slowest supplier," he says.

Although no one can predict how bad it may get or for how long, those that survive the current crisis could emerge stronger, Zimm says.

"We have to get through this slam on the brakes, and the stoppage," he says. "But the foot will [eventually] move back over to the gas. Things will grow again."

What approaches has your shop found most effective for operating during the current COVID-19 crisis? What unique challenges have you faced?