HOW CAN THE AEROSPACE INDUSTRY PREPARE FOR A PRODUCTION RAMP DOWN?

The AlixPartners A&D Minute

With air travel down to a minimum, and predictions on when it may go back to precrisis levels in uncertain territory, the aerospace industry will need to ramp down production for the foreseeable future. This is a startling scenario for a supply chain that has only seen business boom over the last couple of decades. Aided by flourishing demand from new markets such as China and a bounty of low-cost airlines launching in the US and Europe, the commercial aerospace industry grew 4 to 5% year-on-year over the last two decades. This led to a record number of aircraft deliveries – 1,606 aircraft in 2018 (figure 1) – with the entire supply chain having been set up to continuously ramp production up.

Ramping down then, will come as a severe culture shock to the aerospace industry. This contrasts with the automotive sector, which had to deal with similar consequences in 2007-2009 and is thus familiar with the complicated process of reducing production levels quickly.

By even the most generous of predictions, commercial aerospace activity is not expected to recover for several years. This means that the reduction in production volumes will cascade from original equipment manufacturers (OEMs) to the rest of the value chain, including all supply chain tiers as well as service providers. All industry stakeholders must adapt their cost structures to the new environment to avoid bleeding unnecessary cash and risk going out of business.

This kind of companywide adaptation demands that senior management define realistic business scenarios to set topdown financial targets that then flow through to all business levels. Executive leadership must determine new cost structures and identify reduction levers for labor, material, and industrial footprint. Such a process will require a central project involving all company functions to drive

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and drumbeat execution that is monitored through key performance metrics at individual team level and ultimately aligns with overall company targets.

In the short term, lowering production levels will require this sequential set of activities:

1. **Adapt the production system:** Refocus the company on streamlined production first, then resize the industrial environment and its support organization.
   - Remove duplicate lines on the shop floor, merging stations and rebalancing routings to find a new optimal work sequence and shift patterns. The goal is to free up surface, reduce inventory, and maintain production lead times to lower fixed manufacturing costs and preserve commercial capabilities.
   - No adaption of production lines should impact program fixed costs and inventory efficiencies.

2. **Offload excess direct labor and increase workforce flexibility:** Factory workers as well as corporate employees who focus on production-related activities must match the new workload and shop floor setup. This will lower recurring costs proportionately to the required production rate decrease.
   - Preserving competencies is essential to ensuring readiness for when production programs need to start ramping up again.
   - Human resource (HR) support is critical in retaining mandatory competencies and expertise as well as training staff for new competencies. HR will also be instrumental in setting up redeployment platforms and organizing and structuring all personnel moves and transfers.

3. **Reduce the fixed costs base:** Expenses related to workforce in central functions such as engineering or selling, general, and administrative support also need to be adjusted. A zero-based budget approach will help challenge and resize fixed costs in line with new activity levels.
   - Organizations must identify their sizing drivers and review sizing of resources for each activity. This includes revisiting central versus local allocation, consolidating program teams, and applying span and layer rules for a leaner structure.
   - Strong governance and discipline will be needed to stop or postpone improvement projects and drastically cut product modifications focusing on safety, airworthiness, and obsolescence. This is critical to resizing the engineering setup with exceptions to allow product development of highest value projects, hence preserving the future.

In the medium term, streamlining the industrial footprint and reshaping the supply base will be required. This will take more time to implement but needs to be initiated as part of the resizing plan. Reducing production rates is an opportunity to reshape the supply chain and manage transfer of work with minimal disruption. This may include site divestiture, consolidations, or closures. Such a plan enables consolidation as well as the reshaping of the target Tier 1 and Tier 2 supplier landscape.

Because lowering production levels is an unfamiliar situation for all stakeholders in the industry, this necessary approach must be planned carefully as well as decisively. Organizations need to adjust to the industry’s new reality, while ensuring that critical resources are preserved and redeployed in preparation for an eventual recovery.
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