

# Easing the Burden of Aerospace and Defense Manufacturing

## Improve Supply Chain Visibility and Customer Satisfaction

**ARTICLE**

Today's competitive and complex aerospace and defense (A&D) marketplace requires businesses to implement efficient best practices through a fully faceted ERP system to thrive. Here we discuss the top five considerations for mid-sized A&D manufacturers navigating ERP solutions.

### 1. Building in Compliance

Compliance is a critical area of focus for A&D companies. Failure to comply with government regulations can mean loss of future contracts and revenue as well as criminal liability.

Governmental regulations now extend much deeper into the A&D supply chain because traceability—ideally the ability to trace every part from original supplier through final product—is essential. In addition, organizations responsible for auditing have increased their pressure on programs to remain on budget and on schedule. As a result, many manufacturers are finding the scrutiny surrounding required compliance reporting to be daunting.

Compounding the challenge is the fact that each customer, partner and supplier has their own set of requirements and reporting. Rather than reactively producing reports, a better solution is to build compliance measures into the manufacturing process so that every time a product is built, tested or analyzed, the dates, people and processes are recorded, triggering notifications to be sent out as required. Identifying your quality, regulatory and customer requirements is mandatory, so look for a system that automatically includes the needed reports and processes. A major

benefit of merging stakeholder requirements is improved traceability and compliance for all stakeholders.

### 2. Expanding Control and Insight Into the Supply Chain

Accurate forecasting of the supply chain demands is critical. As an A&D manufacturer, you are caught in the middle. Both the suppliers and customers are demanding and expecting more status and visibility. You're trying to predict what changes your prime contractors will send next, so you can alert your suppliers to ensure they have the inventory you need when you need it.

A seemingly small engineering change order can create a huge ripple effect throughout the process. One of the best things you can do for your business is to set up workflows that ensure every ECO (engineering change order) is automatically communicated throughout the supply chain. You'll also want workflows that send project status alerts at every critical juncture. With ongoing awareness, you'll significantly reduce delinquencies due to inventory shortages and increase your responsiveness to customers. Improved supply chain visibility increases on time delivery and customer satisfaction.

### Navigating ERP Solutions for Mid-Sized A&D Manufacturers

Best practices to consider:

- Building in compliance
- Expanding control and insight into the supply chain
- Instituting repair process management
- Planning and scheduling
- Running your business

### 3. Instituting Repair Process Management

As the manufacturer, you are frequently required to repair your own equipment. Because the margins on repairs can be quite significant, implementing and maintaining an accurate, sustainable and reliable process is a must. Establishing a MRO (maintenance repair and overhaul) process will help you keep track of:

- Which repairs have been proposed
- When equipment is due for maintenance
- Where the work is being done – at the shop or in the field
- Whether you have the right materials, tools and people for the job
- How you are getting paid for this job. If the customer is covered under a maintenance contract or if this is a one-off repair that needs to be separately quoted and invoiced
- Whether the repairs are FAA requirements or customer driven



Maintaining a solid repair and maintenance management process quickly pays off. Your customers are reassured that you're in control, communicating on the status, shipment dates and any delays. Employees can be less stressed and more proactive in meeting customer needs. More visibility into the repair process means you will be able to give customers accurate lead times for their repairs. You'll know that your people, tools and supplies are in the right place.

#### **4. Planning and Scheduling**

One missed deadline can damage your reputation, which may cost you future contracts. Scheduling is predicated on having complete inventory control, machine maintenance scheduling and close integration with suppliers. In addition, you have to be able to accurately forecast demand and enable signal-based replenishment, so you don't run out of stock. One way to enhance capacity planning is to build integration points throughout the entire supply chain. Because of indeterminate demands to the business, being able to accurately forecast requirements to the entire supply chain and your customers is absolutely required.

#### **5. Running your Business**

At its core, your ERP system should be designed to help you build, repeat and refine best practices. The advantage of choosing an industry ERP solution, such as Hitachi Consulting's Aerospace Enterprise Solution (AES), is that you'll automatically be following industry best practices because your solution is tailor-fit for the A&D industry. AES will help you maximize financial performance, while staying in compliance with industry regulations. You'll be able to track your costs in detail— from raw materials through delivery. Rather than running post-mortem reports long after the project has been shipped and improving next time, set up dashboards and alerts that give you information you can act on immediately.

Contact a Hitachi Consulting team leader to discuss how our solutions can help improve your operations.



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