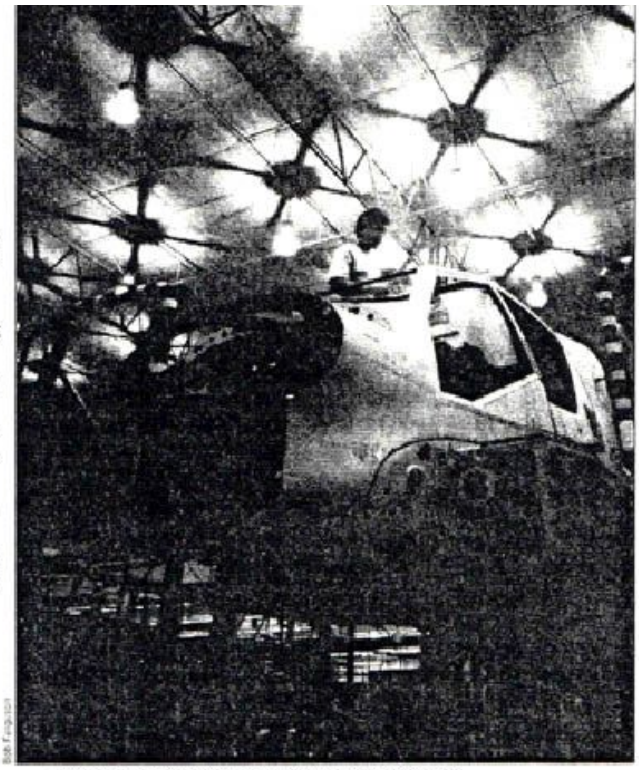
MDHS Slashes Apache Cycle Time



Bob Ferguson

Apache production time has been cut in half thanks to a successful cycle time reduction program in Mesa.

It used to take four years to produce an Apache helicopter.

Today it takes two.

The dramatic cycle time reduction is the result of an ambitious "Team Apache" effort encompassing MDHS, its customer and suppliers.

The benefits, like the effort, are shared. MDHS and its suppliers have reduced inventory and production costs and increased their ability to capture new business, such as foreign military sales, through improved customer responsiveness. The U.S. Army has gained a more efficient and flexible supplier ready to respong more quickly to evolving requirements.

MDHS Material, Planning, Procurement, Subassembly, Final Assembly, Test, and Culver City functions were key elements of the cycle time reduction program - and they aren't finished yet.

The group is ahead of schedule to meet an ultimate goal of reducing Apacthe cycle time 75 percent by the year 2000, according to Bill Duncan, director of Materials Management and author of the strategic plan for emprovement.

The plan was launched in 1992, when a team led by Randy Schalbuch, manager of Master Scheduling, identified the critical paths involved in building an Apache. Critical paths are the network of functions that take the most time in the Apache production process.

Procurement worked closely with suppliers to reduce their lead times, according to Director Jim Mulcrone who lauded the suppliers' outstanding coopersation and customer focus. For example, Teldeyne Ryan Aeronautical reduced the time to produce Apache airframes from 24 to 17 months. At the same time, parts shortages have been reduced by significalntly increasing the number of parts received on time from suppliers, Mulcrone said.

Shortages of internally produced parts were another problem, and teammates from diverse areas of the company pulled together to meet all commitments.

For example, when teammates at the Composites Manufacturing Center reduced and prroritized work orders on the shop floor, shortages dropped from 800 a week to less then 50.

Culver City teammates achieved dramatic results, too. In 1990, the facility was overwhelmed by parts shortages and was behind on production of more than 400 different part numbers for the Apache. At press time, Culver City owed just one part to the Mesa production line.

And the Mesa Backshop reduced average weekly shortages from 19 to two.

Overall, the most important improvements were in Final Assembly, where cycle time has been slashed from 50 to 29 days according to Production Operations Drrector Donny McGlothin, who lauded the efforts of Production Operations Manager Hich Manhardt and the entire Final Assembly team.

Working together to identify critical paths, industrial and manufacturing engineers learned that the way work was scheduled was contributing to delays.

"We learned that some jobs needed to be worked continuously for maximum efficiency," said Manhardt.

So Production resequenced schedules and redeployed some workers to second shift to constantly attack critical path operations.

"The results have been dramatic," McGlothin said.. "Frankly we were shocked by the improvement."

Cycle time reduction plans again are being implemented on the MD 500. MD Explorer and Apache modernization prgrams, and Duncan expects similarly positive results.

"It's great to see the tabgible results of our work," he said. "In this case, that's a satisfied customer and an aircraft flying away in half the time."