Room with a view

A problem-solving technique from Japan is helping Rotorcraft Systems improve—and increase—production

By Jeff Barnett

The H-47 Chinook and V-22 Osprey programs recently received multiyear contracts from the U.S. Department of Defense that will require production rates to more than double over the next five years. This will require an increase in output to seven Chinooks and five V-22 fuselages per month by 2014.

Although the solution to this Rotorcraft Systems challenge seems simple enough—increase the rate of production of Chinooks and Bell Boeing V-22 Ospreys—increasing production creates a number of challenges of its own. Building more aircraft means increased resource and manpower needs, as well as mounting capital requirements. It also creates a greater need to integrate planning, scheduling and the work itself in a way that's transparent to everyone involved.

"The operational tempo of our forces around the world presents definite challenges in our production and manufacturing schedule," said Obie Jones, director of operations and Philadelphia site leader. "We want to make sure we supply our warfighters with the rotorcraft they need to get the mission done and get home safely."

To meet the challenge, Rotorcraft Systems put into action an effective, proven problem-solving tool that combines the power of people and the strength of the team to help prevent problems and create solutions. It's called the Obeya process.

Obeya is a Japanese term that translates into "big room" in the English language. In the business environment, Obeya translates into increased coordination among ordinarily disparate groups.

Under the Obeya process, teams are gathered from disciplines throughout the manufacturing and production processes and meet regularly, in a "big room," to focus efforts and coordinate actions.

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– Obie Jones, director of operations and Philadelphia site leader

The theory behind Obeya is based on a simple idea: Dedicate time and space to coordination and problem-solving and organizational barriers will be minimized. The result: effective solutions and actions that can be developed and implemented quickly.

A staple in the Japanese auto industry, Obeya promotes coordination, strategy and flexibility while leveraging the expertise and support of teammates from diverse areas. The process allows the teams to see issues and challenges before they have an impact on production—not afterward, when resolving them can be time-intensive and costly.

“To meet the demands of our customers and make our production process as lean and effective as possible we needed to sharpen our focus on quality and product integrity, Jones said. We think the Obeya process does just that … increasing the kinds of communication and coordination among our teams that make an impact on the end result.”

The room itself plays an important part in the process. Its walls are lined with boards that help teams visualize and track vital actions that are in process and scheduled. This helps team members “see” the process and know where and when actions need to be completed and where problems might arise.

Joe McCann, senior manager, Industrial Engineering, was tapped to facilitate the production Obeya process at the Philadelphia site in August of 2008.

“Once a week, representatives from more than 20 areas gather to discuss actions and solutions,” said McCann. “These areas include functions, programs, factory support, staffing, supplier management and quality. These meetings are more than just status reports, Obeya team members can request help from other disciplines, develop ideas within the group and rely on the wealth of expertise in the room.”

“The advantage of the Obeya process is, it allows you to share rate readiness activities with the different disciplines,” said John Labanda, staff analyst, V-22 Operations.

“It allows you to talk about what your team is doing near term and in the future to prepare in achieving our goals … communication is key and that’s why this process works.”

“This new process has enabled integration of our rate readiness activities across the site,” said Jones. “All our stakeholders are included and communication of rate readiness activities has improved significantly.”

The V-22 team has already seen an impact on its TAKT time, or the amount of production time required for each aircraft fuselage. The team was able to lower its time from 10 days to eight days. The H-47 program has also seen success, lowering its TAKT time to a seven-day cycle.

“The Obeya process has allowed us to play a proactive rather than reactive role,” Labanda added. “We identified and articulated the need for critical and near-term capital equipment and major tooling before they were issues.”

“The Obeya process is an approach to project management that has proved very effective,” McCann noted. “With this tool, we feel we have a great way going forward to meeting our production goals.” ■

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PHOTO: The room itself plays a key role in the Obeya process, offering visual progress metrics and milestones. From left: Joe McCann, senior manager, Industrial Engineering, Steve Bowe, methods process analyst, Industrial Engineering, and John Labanda, staff analyst, V-22 Operations. FRED TROILO/BOEING