



The 'next' step

For two Boeing teams, a small move to be closer has gone a long way in building new business

By Tabatha Thompson

PHOTO ILLUSTRATION: Symbolizing the synergy and modeling expertise of their recently co-located space shuttle propulsion teams, Boeing managers Steve Snell (left) and Steve Arrieta go “on-site” to inspect a virtual propulsion system.

BRANDON LUONG/BOEING; PHOTOS ELIZABETH MORRELL/BOEING

Sometimes, the person sitting across the aisle may have the answer.

That’s the thinking that inspired two managers working on Boeing’s space shuttle propulsion systems to co-locate their Houston-based teams for improved efficiency and interaction. Previously, the teams were in separate buildings three miles (five kilometers) apart. Now, they’re within steps of each other.

And the move is paying off—for the shuttle program as well as in new business opportunities for Boeing.

One of the Boeing teams is led by Steve Arrieta and deals with propulsion system hardware. Steve Snell leads the other team, which integrates propulsion on the Space Shuttle.

Shortly after their relocation, Snell’s team volunteered to learn from and assist their new suite mates on projects using a software program called Easy5, which models fluid and gas systems and allows users to virtually build components such as valves.

Both teams were soon working a modeling problem involving one of the space shuttles. *Discovery* was on the pad and being readied for an April launch when an internal valve apparently failed. But the valve was in a place that was almost impossible to reach, so it could not be easily checked.

“The teams worked together to model the problem and found that even if the valve failed, we were well within [performance and safety] tolerances. It was a tremendous effort in getting answers quickly in order to fly the

mission successfully,” said Mike Snyder of United Space Alliance in Houston. The alliance is a 50-50 joint venture by Boeing and Lockheed Martin.

With the shuttle program winding down, the teams are looking to take advantage of their diverse skills to build new business. The results so far have been promising: “A couple of direct contracts with NASA not related to [the] shuttle,” according to Donald Varanauski, a Boeing propulsion and power engineer.

One project taps the teams’ Easy5 experience to model and analyze a proposed cryogenic rocket test stand for NASA.

“This is the first time NASA has attempted to build and test something in a computer model before building it in real life,” Arrieta said. “Our success in modeling the proposed test stand will position us to capture new propulsion design and analysis work from both the government and industry.”

Snell and Arrieta credit the relocation—and team members recognizing and encouraging one another’s strengths—for the new work. “We have a diverse set of skills across our two teams that we hadn’t fully appreciated before we were co-located,” Snell said. “We wouldn’t have brought in this new business without integration, or at least not as well. And we have a very happy customer.” ■

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