

JSC Competition brings in students for a challenging weekend

The year is 2045. The Foundation Society has issued a request for proposal of a Mars-based settlement to accommodate 19,000 residents. You have one weekend to meet with your colleagues and complete a proposal. Be ready to present your design in three days.

This was the situation that more than 100 10th, 11th and 12th graders faced as they arrived at JSC Friday, Feb. 2. Suddenly, the 122 students found themselves decades into the future, divided into four groups of unfamiliar faces and given a task as great as planning a dwelling on a planet they had only read about.

"The team focused early on a baseline concept and spent the remaining time refining the details of the design," said Boeing's Jon Zelon, of winning team Grumbo Aerospace. Time management and communication skills, as well as stamina, were tested as the high school students had to develop a safe and

pleasant working environment, with detailed allocation of resources. A cost for design was given to the students and, as Sean Cluster of Pearland High School learned, "it can get real expensive, real quick."

The participants spent their time against the mockups of the shuttle and the space station in the highbay of Building 9. The site was quite inspiring, especially for those students interested in engineering. But the competition draws students from many more disciplines, too.

As Astronaut Dr. Bonnie Dunbar explained, it attracts "students that are not only in science and math, but writers, public speakers and artists. So it was engaging students into space but in the same breadth of backgrounds that we use here at the agency. We're a team. They learn what we learn. It gives them a real life taste."

Working with a deadline, the students had to communicate ideas quickly.

"We're all tired, we're all working hard, but it's worth it at the end to see the finished product as a whole group, a team," said Ricky Chow, a member of Grumbo Aerospace.

"Teamwork is number one," Jon Zelon says. "The team either succeeds or fails based on its ability to make maximum use of its resources. The majority of students stay up the whole night completing the proposal and preparing for the oral presentation. It is very rewarding for me to be a part of this and to watch our future business leaders having this experience for the first time."

"I'm convinced that all of these students took away with them the memory of an experience that will benefit their future career paths. And it's so exciting to me to think that some of these students may play a key role in our eventual human mission to Mars—maybe even be a crew member," said Norm Chaffee, project coordinator for the event.

The three other teams—Rockdonnell, Vereinigten Flugfahrten GmbH and Vulture Aviation—left with certificates signed by former center director George W. S. Abbey. Grumbo received the certificates and medals of achievement.

Assisting the students were volunteers from government and industry serving as CEOs for the teams. Jon Zelon of Boeing worked with Grumbo Aerospace; Dr. Merri Sanchez and Nicole Mullins of NASA, with Jorge Molina Acosta of Boeing, worked with Vulture Aviation; Andrew Carmain and Carolyn Kostak of USA worked with Vereinigten Flugfahrten GmbH; and Brian Derkowski and Jim Geffre of NASA worked with Rockdonnell, Inc.

These volunteers gave of their time and expertise to help the students accomplish their goal. Dr. Dunbar insists that the competition "wouldn't work without the dedication of our civil service and contractor volunteers." ■

