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Center Provides Steady Flow of Global Participants

Approximately 110,000 visitors from all over the world visit the Boeing Tour Center in Everett, Wash., each year, making it the top tourist destination in Snohomish County and one of the most popular attractions in the state. The tour's popularity stems from several factors, not the least of which is that Everett is home to the Queen of the Skies - the 747 - as well as Boeing's other twin-aisle jets, the 767 and 777.

Seen here are participants at the first stop inside the Boeing Passenger Experience Center, where they are having their seated height measured. From here, visitors are escorted to assigned seats in an airplane interior mock-up, where they answer a series of multiple choice questions using wireless remote control devices.

Besides taking the tour, participants are now also providing valuable information to Boeing's airplane interior design research. Boeing and Teague, a Seattle firm that designs Boeing airplane interiors, have teamed up to establish the Passenger Experience Research Center adjacent to the Tour Center.

"The purpose of the research is twofold: to influence the design of airplane interiors with input from actual users, and to provide our airline customers with valuable information that will help them select their interiors," said Blake Emery, director of Differentiation Strategy for Boeing Commercial Airplanes.

The reason for the latter is that most of what is seen in an airplane interior is chosen by the airline, not provided in a standard package.

"We like to do this kind of research to find out what passengers prefer, rather than designing interiors according to what we think passengers might want," Emery said.

The location of the research center is perfect for passenger research due to its steady flow of participants from around the globe. The tour center typically sees about 1,000 visitors a day in the summer, with 25 percent coming from countries other than the United States, and 80 percent from states other than Washington.

"The tour center location allows us to test our concepts on a large, diverse group of people in a matter of weeks instead of a year or longer," said Ken Fox, Passenger Preference, Marketing, Boeing Commercial Airplanes. "We also get a lot of frequent flyers at the tour center, which is our target audience."

A team of scientists contribute to the design and analysis of this research effort. They include statisticians from Mathematics & Computing Technology at Boeing's research and development arm, Phantom Works, and experts from Human Factors and Industrial Design, Boeing Commercial Airplanes.

Three college students have been hired for the summer to staff the center. They escort willing participants who have taken a factory tour into a white 30-by-60-foot tent that resembles a party tent from the outside.

"It's not hard to get volunteers," said Catherine Calderon, one of the center's staffers. "People are happy to have a chance to make their preferences known."

Inside the Boeing Passenger Experience Center, participants are given instructions before taking the computerized survey with remote control devices. Survey participants are providing valuable information for Boeing's airplane interior design research.

Inside the tent is a mock-up of an airplane interior. After having their seated height measured in the outer lobby, participants are given hand-held remote control devices and shown to their assigned airplane seats.

After everyone is settled "aboard" the 56-person mock-up, the survey comes up on a screen at the front of the cabin. Surveys are conducted in English with written translations available in German, Spanish, Chinese and Japanese.

Participants answer a series of multiple-choice questions at the prompting of a narrator, and they submit their survey answers using the remote control.

Many people have commented favorably on the high-tech approach. "Excellent use of technology in aid of a survey," one said. "The survey area was very creative and fun," noted another.

About 200 to 300 people a day take the survey. The configuration of the mock-up is changed every couple of weeks to get feedback on various airplane interior concepts. Statistical methods for analyzing survey data are used to provide efficient and accurate information from the survey.

"Even in the few short months it's been in operation, we learned several pieces of valuable and sometimes

surprising information," Emery said. "One thing I can be specific about is that our Boeing Signature interior is proving to be a real hit with the flying public." (This is the interior based on the award-winning 777 interior.)

The Boeing tour has a well-deserved reputation as a unique, educational and fun excursion. Tours are offered Monday through Friday. For more information, call 1-800-464-1476 toll free in United States and Canada; 206-544-1264 in the Seattle area; or visit the Web site.

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