

PUBLIC RELATIONS

THE FRANKLIN INSTITUTE HAD A PLACE ABOARD THE HISTORIC FINAL MISSION OF THE SPACE SHUTTLE PROGRAM

At the personal request of native Philadelphian and Shuttle Commander Chris Ferguson, a stainless steel star cut from an original panel of the Fels Planetarium dome at The Franklin Institute was flown into space aboard the STS-135 on July 8.

Shuttle Commander Christopher Ferguson called Chief Astronomer Derrick Pitts in early March to offer the opportunity to fly something on his historic final mission, STS-135. A team of Franklin Institute staff members decided to send a star-shaped section cut from the original stainless steel Fels Planetarium dome, which was installed in 1933 (a new aluminum dome was installed during the 2002 Fels Planetarium renovation). The star-shaped section was selected because since 1933, some 25 million people sat under that Fels Planetarium dome. Ferguson, who visited The Franklin Institute often as a local student in the late 1960s and early 1970s, also sat under that dome several times!

The star did present one major problem for flight: it's made of stainless steel with *five sharp points* – which went against NASA flight safety guidelines, and would never pass NASA inspection. So the team called on Exhibit Development prototyper Eric Welch to design and build a secure casing that would both capture the points and leave the star easily visible for inspection. His solution: a 4-inch wide, clear acrylic circular 'sandwich' of plastic and steel. The steel star is now held in a 1/16 -inch thick, acrylic frame, sandwiched between two 1/4 -inch thick acrylic disks. Kyle Stetz, a prototyping consultant from University of the Arts, ran the computer-guided milling machine used to laser-cut the super-thin star frame. Looking like a circular crystal jewel box, the three pieces are held together with five aluminum rivets with chamfered edges for a very smooth and professional finish.

The completed package was sent to Commander Ferguson on March 25 for NASA testing and approval prior to the launch. The package will be returned to The Franklin Institute after the flight and permanently mounted for all visitors to see.

