

Soul of an Old Machine

LAST APRIL, on the 50th anniversary of Yuri Gagarin's orbital flight and the 30th anniversary of the space shuttle *Columbia's* first flight, NASA announced the disposition of the three orbiters remaining of the five that flew. The Smithsonian's National Air and Space Museum, currently displaying the test vehicle *Enterprise*, will get *Discovery*; *Enterprise* will be transferred to New York City's *Intrepid* Sea, Air & Space Museum. The Kennedy Space Center in Florida will keep *Atlantis*, and the California Science Center in Los Angeles, the dark horse in the race to snare a shuttle, gets *Endeavour*.

To the casual observer, the space shuttles look the same. But to the astronauts, engineers, and technicians who know the orbiters intimately, each has a distinct personality.

For Stephanie Stilson, shuttle processing flow director for *Discovery* and for the transition and retirement team for all three orbiters, it's not the dizzying complexities of the vehicles that make each one unique. She hopes the display sites will convey not only what was accomplished in orbit, but also some sense of the teams that took care of the orbiters.

"The ground processing team is the soul of *Discovery*," says Stilson. "The



orbiter is the pinnacle of the team, but without the team taking care of *Discovery*, she wouldn't have had this wonderful career."

Discovery, the oldest of the surviving orbiters, is also the heaviest because of more protective tile and instrumentation, and "has the unique distinction of leading American manned spaceflight back to operations following both the *Challenger* and *Columbia* tragedies," says shuttle launch director Mike Leinbach.

Mike Parrish, United Space Alliance assistant flow manager for *Endeavour*, says this orbiter is distinguished by its technical capabilities. As the newest orbiter, *Endeavour* navigated with the Global Positioning System; *Discovery* and *Atlantis* used the military's Tactical

***Atlantis'* main engines took center stage in the Kennedy Space Center's Orbiter Processing Facility last April as a backdrop for an announcement: the final resting sites of NASA's three space shuttle orbiters and the atmospheric test vehicle, *Enterprise*.**

Air Navigation system. Parrish added that *Endeavour* could spend additional time orbiting with the International Space Station "and had a smoother thermal protection system profile, making it a bit cooler to operate."

In September 2006, during mission STS-115, the occurrence of Hurricane Ernesto made it necessary to move *Atlantis* back to the Vehicle Assembly Building. Hail damage to the external tank forced a return to the building during STS-117 in June 2007. "*Atlantis* was jokingly called the Penguin, after the flightless bird, because she seemed to like to take a tour around the area before she launched," says Angie Brewer, *Atlantis* flow director. "We have learned to just take her penchant for wandering around in stride."

For NASA's Jim Bolton, *Atlantis'* vehicle manager, *Atlantis* was memorable for a few technical firsts. It was the first shuttle to dock with the Russian Mir space station and first to be outfitted with a glass cockpit. *Atlantis* also features a last: It will make the final shuttle flight to the International Space Station.

UPDATE

Meteorite Stays Put

THE METEORITE that crashed into the doctors' offices in Lorton, Virginia, in January 2010 and triggered the threat of a legal wrangle ("From the Asteroid Belt to the Courtroom," *Soundings*, Apr./May 2010) will now star in a display at the Smithsonian's National Museum of Natural History. Shortly after physicians Marc Gallini and Frank Ciampi gave the stony chondrite to the museum, their landlords moved to make a legal claim to it. Eventually they dropped the matter. "All we wanted to do was donate it to a different institution," a member of the family that owns the Lorton office building told the *Washington Post* last March. The Smithsonian paid the physicians \$10,000 for the 4.5-billion-year-old specimen. "We knew meteorite hunters would offer them something for it, and we wanted to be competitive," says the museum's meteorite collection manager, Linda Welzenbach. The physicians gave the money to the charity Doctors Without Borders.

■ ■ ■ JOHN R. WILLIAMS