JSC scientists have their names in the stars

By Cathy Watson and Kendra Ceule

Marilyn Lindstrom is #5281, David McKay is #6111 and Mike Zolensky is #6030. No, those are not these employees' PIN numbers – they are the numbers of the asteroids that bear their names.

The naming of asteroids is the responsibility of the Small Bodies Names Committee of the International Astronomical Union (IAU). Nearly 12,000 small bodies have been discovered so far in Earth's solar system and more than 10,000 of those have been named. Several past and present Johnson Space Center employees have been among those people honored with asteroid names, including the following:

Don Bogard:
asteroid name 'Bogard,' #4794
Bogard, Chief Scientist for Research on Astromaterials for the Astromaterials Research and Exploration Science (ARES) office, has worked at JSC since 1968. His asteroid was discovered in 1988.

Everett Gibson:
asteroid name 'Everett,' #14593
Gibson works at JSC as a Planetary Geochemist. He is the only U.S. scientist on the European Space Agency's Beagle2 Science Team.

"Having an asteroid named for your scientific accomplishments is one great honor by your colleagues," Gibson said.

Marilyn Lindstrom:
asteroid name 'Lindstrom,' #5281
Lindstrom has worked with meteorites for most of her NASA career and got her asteroid in 2000. Lindstrom is now a Program Scientist in the Solar System Exploration Division of NASA Headquarters' Office of Space Science.

"When I was reassigned after 14 years as meteorite curator, I felt honored to receive two very special gifts from NASA's partners," Lindstrom said. "The Smithsonian Institution and National Science Foundation named an asteroid and a ridge in Antarctica after me."

David McKay:
asteroid name 'Davemckay,' #6111
McKay is Chief Scientist for Astrobiology in the ARES office and got his asteroid in 2002. His IAU citation mentions his years of work on lunar samples as well as the positive effect his research on Martian meteorites has had on planetary research.

"It was an unexpected but very high honor to have an asteroid named after me," McKay said. "If it ever crashes into Earth, I will probably get the blame, but in the meantime it is very nice to have it out there orbiting the Sun for perhaps the next few billion years."

Dave Mittlefehldt:
asteroid name 'Mittlefehldt,' #5760
Mittlefehldt, Planetary Scientist, has been studying meteorites at JSC since 1985. He has made two trips to the Antarctic to search for meteorite samples.

"My first thought when it was announced was 'I hope they spelled my name right,'" Mittlefehldt said. "My second thought was a replay of the scene in 'Wayne's World' when Wayne Campbell and Garth Algar prostrate themselves in front of Alice Cooper and say 'We're not worthy!' After these initial reactions, it finally sunk in that the family name will be written in history for as long as astronomical records are kept. It's quite a humbling thought. I am deeply honored."

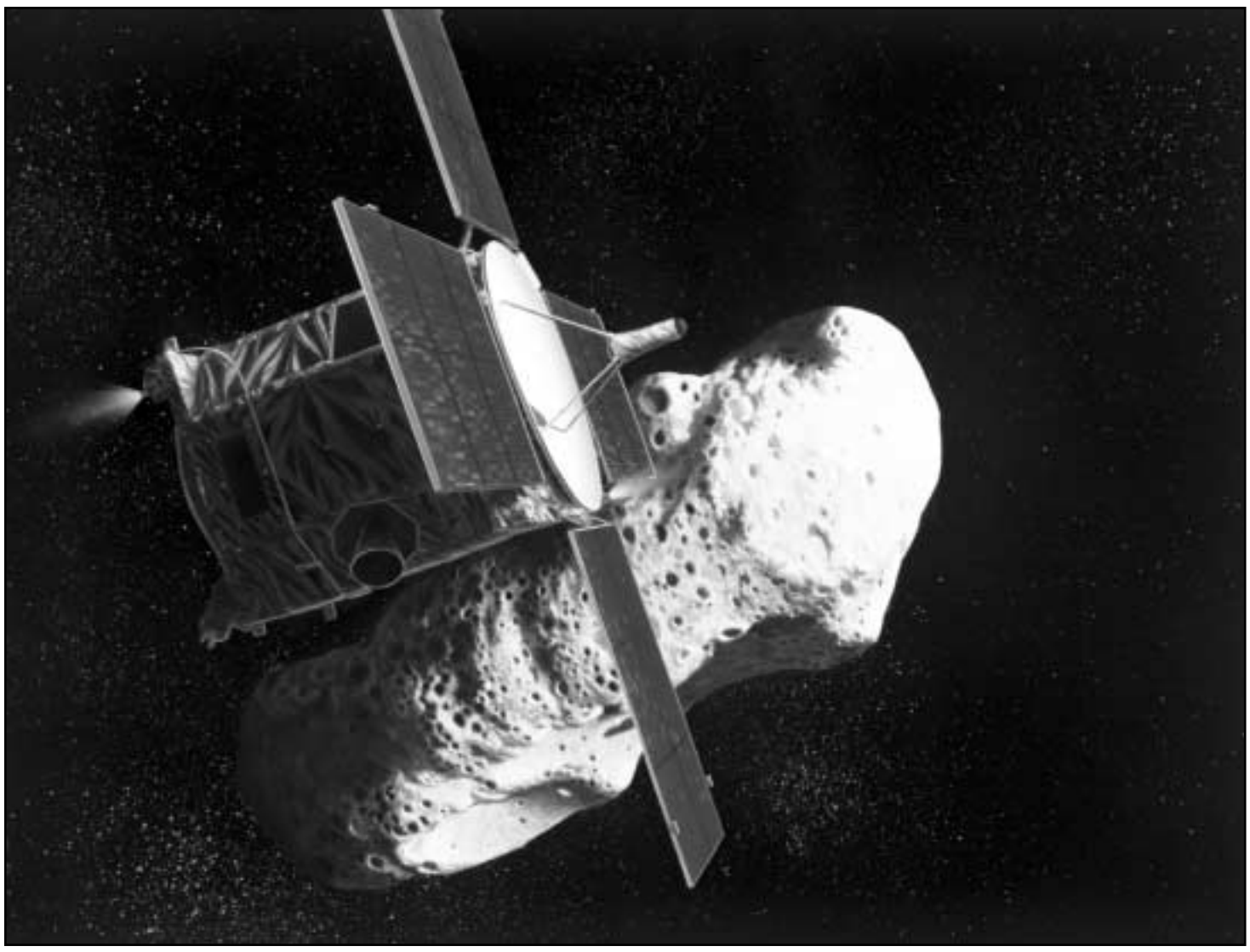
Faith Vilas:
asteroid name 'Vilas,' #3507
Vilas is a Planetary Astronomer studying the surface mineralogy of asteroids from telescopic reflectance spectra. She is the U.S. representative to the near-infrared spectrograph science team on the Japanese MUSES-C mission that will return a sample from a near-Earth asteroid. She is also one of the discoverers of the rings of Neptune.

"Cool!" said Vilas when she learned of her asteroid.

Mike Zolensky:
asteroid name 'Zolensky,' #6030
Zolensky has worked at JSC since 1983, specializing in meteorites and interplanetary dust particles (samples of asteroids and comets). He got his asteroid name in 2002.

"It's a real honor, but to put things in perspective, many rock stars and politicians have asteroids named for them as well," Zolensky said.

Herbert Zook:
asteroid name 'Zook,' #14267
Zook (1932-2001) was a Planetary Scientist at JSC who "advanced the understanding of the interplanetary dust complex," according to his IAU citation. Zook studied meteoroid orbital evolution, collisions, resonant orbit interactions, radiation pressure and electromagnetic effects.



Asteroids have fascinated scientists and skygazers alike ever since the first one, Ceres, was discovered on Jan. 1, 1801. Two-hundred years later, in February 2001, NASA's Near Earth Asteroid Rendezvous (NEAR) spacecraft became the first spacecraft to land on an asteroid. Today, several asteroids are named after JSC employees -- including the STS-107 crew and the scientists listed above. This artist's rendering of NEAR was produced for NASA by Pat Rawlings of Science Applications International Corporation.

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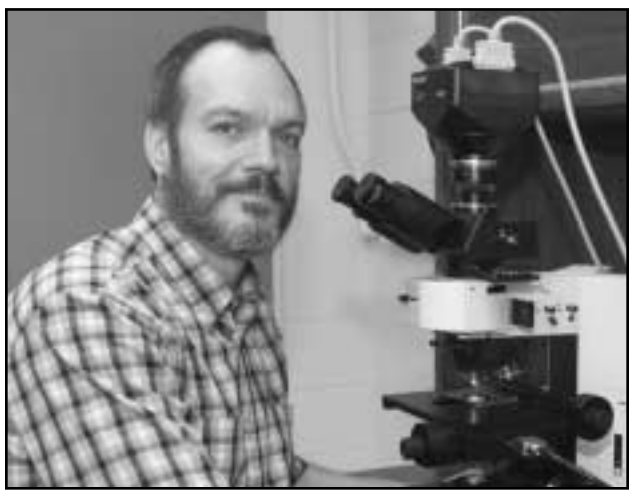

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FROM TOP, LEFT TO RIGHT

Don Bogard, Everett Gibson, Marilyn Lindstrom, David McKay, Dave Mittlefehldt, Faith Vilas, Mike Zolensky and Herbert Zook.

Photos by the JSC Photographers

Asteroids dedicated to STS-107 crew

The final crewmembers of the Space Shuttle Columbia *were memorialized in the cosmos August 6 when seven asteroids orbiting the Sun between Mars and Jupiter were named in their honor.*

The STS-107 crew – Commander Rick Husband; Pilot Willie McCool; Mission Specialists Mike Anderson, Kalpana "K.C." Chawla, Dave Brown and Laurel Clark; and Israeli payload specialist Ilan Ramon – will have celestial memorials easily found from Earth.

The names, proposed by NASA's Jet Propulsion Laboratory (JPL) in Pasadena, Calif., were recently approved by the International Astronomical Union.

The seven asteroids were discovered in 2001 at the Palomar Observatory near San Diego by former JPL astronomer Eleanor F. Helin, who retired in July 2002. The seven asteroids range in diameter from five to seven kilometers (3.1 to 4.3 miles).

"Asteroids have been around for billions of years and will remain for billions more," Dr. Raymond Bambery, Principal Investigator of JPL's Near-Earth Asteroid Tracking System, said. "I like to think that in the years, decades and millennia ahead, people will look to the heavens, locate these seven celestial sentinels and remember the sacrifice made by the Columbia *astronauts."*

The International Space Station at five

This month marks the fifth anniversary of the birth of the International Space Station. While crews have only been living and working aboard the Station since November 2000, it has been five years since the first ISS element – the Zarya Control Module – was launched from Baikonur Launch Complex in Kazakhstan in November 1998.

Zarya is a true symbol of United States/Russian cooperation. The module was U.S.-funded and built under a subcontract to The Boeing Company but was constructed in Moscow and has a Russian name. Zarya translates to "Sunrise," which is appropriate since the module symbolized the dawning of an exciting new era of international cooperation in space – not just between the United States and Russia but among all 16 ISS partner countries.

Zarya approaches the Space Shuttle *Endeavour* and the U.S.-built Node 1, also called Unity. Inside *Endeavour*'s cabin, the STS-88 crew readied the remote manipulator system for Zarya capture as they awaited the rendezvous.

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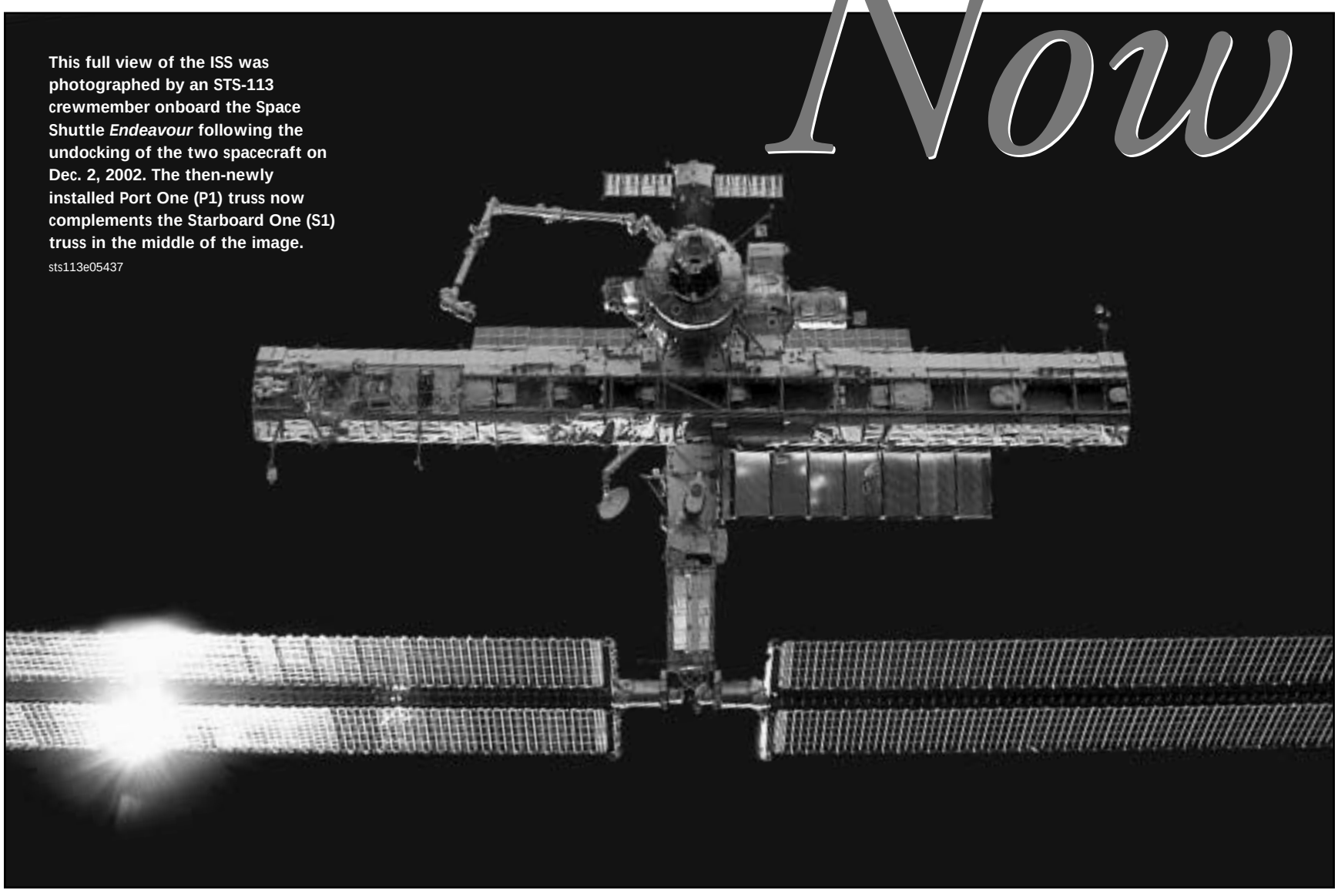
Then & Now



This full view of the ISS was photographed by an STS-113 crewmember onboard the Space Shuttle *Endeavour* following the undocking of the two spacecraft on Dec. 2, 2002. The then-newly installed Port One (P1) truss now complements the Starboard One (S1) truss in the middle of the image.

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