

2004 Astronaut Candidates

Joe Acaba, Mission Specialist-Educator

Even if he had not told them about his big news, Joe Acaba's students in Dunnellon, Fla. would have known something was up.

"When I found out I'd been chosen for astronaut training, I cut my long hair," Acaba says. "It's made me the butt of a lot of jokes at school."

Dunnellon Middle School, where Acaba teaches 7th and 8th grade science and math, has been abuzz since he got word of his new mission. When he reports to NASA's Johnson Space Center in Houston, he will be one of three educator astronaut candidates, training right alongside pilots, engineers, and researchers to be fully-trained, permanent members of the astronaut corps.

"I've always been intrigued by space travel," Acaba says. "My parents started me at a young age with 8mm films of the first man on the moon."

"Both of my parents were born in Puerto Rico. My dad moved to the States when he was about 10 and my mother moved when she was about 18. My dad is my hero. He came to the States with very little and worked hard to make sure we had what we needed," Acaba says. "He instilled a real work ethic in me."

That work ethic has helped Acaba earn two degrees in geology. He earned a Bachelor's degree from the University of California at Santa Barbara and a Master's degree from the University of Arizona. After working as a hydrogeologist – someone who studies water that is under ground -- Acaba spent two years as a Peace Corps volunteer in the Dominican Republic, teaching the people about the environment. "Once I did that, I knew that education was what I wanted to do. The only job that could take me away from teaching is being an astronaut," he says. "Being an educator astronaut is the best of both worlds."

Acaba, 36, has been an educator for the past five years. He was born in Inglewood, California and raised in Anaheim along with two older brothers and a younger sister. He now has three children of his own. He says that as an educator astronaut, he hopes to reach out to minority students.

A science-fiction buff, Acaba is thrilled by the new Vision for Space Exploration and NASA's goals of returning humans to the moon and eventually continuing on to Mars. "It's something that's only been written about in books, but it's going to become a reality soon.

"As an educator, I think the most important thing for me is to fulfill the goal of inspiring the next generation. Motivating kids to learn is as important as the subject matter," he says.

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Ricky Arnold, Mission Specialist-Educator

"When you do a web search on 'astronaut training,'" says astronaut candidate Ricky Arnold, "you come up with Malaysia's plan for training astronauts, as well as Japan's, South Korea's, and Europe's. There's a lot of international interest in space travel."

Arnold has a lot of international interests, too. For the past decade, he's been teaching science and math in schools from Morocco to Romania. Soon, the cosmos may be his classroom.

Arnold, 40, has been selected to train as one of three educator astronauts, fully-qualified mission specialists who will embody NASA's mission to inspire the next generation of explorers. He reports for training this summer to NASA's Johnson Space Center in Houston.

"My kids have never lived in America before," he laughs, "even though they think of it as home."

"I've had an interest in space since I was a kid," Arnold says, "but being a pilot wasn't my thing. When NASA started looking for people with my skills, I thought: Here's my opportunity. I hope to make a real connection with schools, to get them excited about what's going on in human space flight.

"The International Space Station is a great model for what people can accomplish when they work together," he says.

Arnold teaches a variety of science and math classes at the American International School in Bucharest, Romania. Students at the school include the children of Americans living in Romania, as well as local children, many of whom hope to study in the United States someday.

"It's remarkable, when my students are out socializing," Arnold says, "the different languages you hear, the different religious beliefs, different holidays. I am always learning something from the kids."

Arnold grew up in Bowie, Maryland, and his family still keeps a house on Maryland's Eastern Shore. He attended two Maryland colleges, earning a Bachelor of Science at Frostburg State and a Master's at the University of Maryland. Arnold's wife and two daughters will accompany him to Houston.

"Just getting selected to train as an astronaut is a dream assignment. I'll do whatever NASA needs me to do," he says. "I am excited about the future missions. Getting back to the moon will be a big step."

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Randy Bresnik, Pilot

Randy Bresnik had been hoping that his next assignment as a U.S. Marine Corps test pilot would be to test a next-generation aircraft. To be selected to help develop a next-generation spacecraft instead, he says, "Holy smokes! That's a dream."

Bresnik, a Marine major, is currently a F/A-18 pilot with the 3rd Marine Aircraft Wing at MCAS Miramar in San Diego, California. He is approaching 3000 hours of flight experience, including a recent tour in the war in Iraq. "We were there from before day one until the president declared an official end to hostilities," he says.

Bresnik says that he and his dad, a former military pilot in Vietnam, used to build models together when he was a child, including a model of a Gemini capsule with a spacewalker tethered outside. "As a kid, flying in space seems so impossible," he says.

But for a grown-up Bresnik, it is becoming a reality. He is one of two people selected to train as pilot astronauts in the 2004 astronaut candidate class, an assignment that could include development and testing work on the Crew Exploration Vehicle. He reports for training this summer at NASA's Johnson Space Center in Houston.

He was born in Fort Knox, Kentucky but moved to southern California when he was just two weeks old. Bresnik graduated from Santa Monica High School before attending The Citadel, where he earned a Bachelor's degree in mathematics. He also holds a Master's degree in aviation systems from the University of Tennessee at Knoxville.

Growing up in Santa Monica, Bresnik was the only boy in a family with four children. "I had a number of people in my life -- great teachers -- who were pretty influential. I remember a 6th grade teacher, a guidance counselor in junior high, a music teacher in college, all of whom went above and beyond. I've been thinking about them. Would they believe it for a moment that I've been selected to train as an astronaut?"

Bresnik, 36, is getting married at a castle in Scotland in May to a civilian lawyer he met while she was working at the Pentagon. "She's an extraordinary woman. She stuck with me when I got deployed for the war," he says. "We got engaged last July on a boat in the middle of a lake in Idaho."

Bresnik says he is looking forward to helping to fulfill the new Vision for Space Exploration. "What I hope to accomplish is to contribute to the NASA team," he says. "What more exciting thing can you do?"

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Chris Cassidy, Mission Specialist

Navy SEAL Chris Cassidy had just returned from a second tour Afghanistan when he got word that his next mission could take him much, much farther away.

"I hope to be the next guy on the moon," Cassidy says.

Cassidy has been selected to begin astronaut training this summer as a mission specialist at NASA's Johnson Space Center in Houston. It is an opportunity he has worked toward for years, after hearing about the achievements of a fellow SEAL.

"I heard about Bill Shepherd, and I found his story motivating," Cassidy said of the first International Space Station commander. "I contacted him and asked him what sort of things I should do to prepare myself to be an astronaut."

Among the things he says Shepherd recommended was that he go back to school. Already armed with a Bachelor of Science in Mathematics from the U.S. Naval Academy, Cassidy applied to the Massachusetts Institute of Technology, or MIT. He eventually earned a Master's degree there in Ocean Engineering.

Cassidy grew up in York, Maine, where he played basketball at York High School. He also attended the Naval Academy Preparatory School in Newport, R.I. His Navy career has taken him across the country and around the world, from Norfolk, Va. on the east coast to San Diego, Calif. on the west. After the terrorist attacks on New York and Washington, the Navy sent him to Afghanistan.

His platoon was deployed to fight in the war against terrorism shortly after September 11. He says that was a "nerve-racking" time for his family. During his second Afghan tour, he took on a greater leadership role and was involved heavily in planning. Cassidy, now a lieutenant commander in the Navy, says he is "just happy to come home in one piece."

Cassidy, 34, is married and has three children, all of whom, he says, are excited to move to Houston. Their dad is enthusiastic, too. Cassidy is "more excited than ever" by the new Vision for Space Exploration and is thrilled at the timing of his selection. By the time NASA is ready to return humans to the moon, he says, he'll be ready.

"I was attracted to NASA for the mystique of traveling into space," he says. "I want to contribute to the agency's mission in any way I can."

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Jim Dutton, Pilot

Jim Dutton was just a little too young to remember when, on July 20, 1969, humans first walked on the moon. Yet, that moment was a big part of his childhood. "When I was growing up, I had a poster of Neil Armstrong hanging on my bedroom wall," he says.

Now, Dutton may be getting his own chance to follow in Armstrong's famous steps. He's scheduled to begin astronaut training as a pilot this summer at NASA's Johnson Space Center in Houston. He will be part of an astronaut candidate class fully focused on fulfilling the new Vision for Space Exploration, which calls for returning humans to the moon, setting up a base there, and eventually sending people to Mars.

"I hope to be in on the ground work," Dutton says. "As a test pilot, I would love to be in on the development of the Crew Exploration Vehicle."

Dutton is a major in the U.S. Air Force and his most recent assignment has been as an F/A-22 test pilot at Edwards Air Force Base in California. During the 1990s, he flew F-15 combat air patrols over the no-fly zone in northern Iraq.

Dutton has degrees from the U.S. Air Force Academy and the University of Washington, but he says he was inspired to become an astronaut in middle school. "I was always interested in outer space, always looking at the stars," he said. "When I was in 7th grade, I got an assignment to research my dream job for career day. I thought, 'Why not an astronaut?' The school librarian, Mrs. Linda Ague, helped me do the research, and it was then I got my first glimpse of what it took to be an astronaut."

He also spent a lot of time learning about the space program with his father. "My dad and I watched a lot of documentaries," he says. "We were real documentary junkies."

Dutton had a "middle-America upbringing" in Eugene, Oregon, where he attended Sheldon High School. His parents ran a small company, and he and his siblings -- a brother and a sister -- spent a lot of their free time playing sports and enjoying the outdoors. "I love Oregon," he says. "I really miss it."

Dutton, 35, now has a family of his own. He and his wife are the parents of three boys ages six, three, and eight months. They've lived at Edwards for the last four and a half years but are looking forward to moving to Houston.

"The decisions that will have to be made over the next few years will set the course for the exploration vision," Dutton says. "It's going to be a real honor to make a contribution to that."

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Jose Hernandez, Mission Specialist

NASA engineer Jose Hernandez remembers exactly where he was when he heard the first Hispanic-American had been chosen to travel into space.

"I was hoeing a row of sugar beets in a field near Stockton, Calif., and I heard on my transistor radio that Franklin Chang-Diaz had been selected for the Astronaut Corps," says Hernandez, 41, who was a senior in high school at the time.

"I was already interested in science and engineering," Hernandez remembers, "but that was the moment I said, 'I want to fly in space.' And that's something I've been striving for each day since then."

Hernandez's work is now paying off. He has been selected to begin training as a mission specialist this summer as part of the 2004 astronaut candidate class.

One of four children in a migrant farming family from Mexico, Hernandez -- who didn't learn English until he was 12 years old -- spent much of his childhood on what he calls "the California circuit," traveling with his family from Mexico to southern California each March, then working northward to the Stockton area by November, picking strawberries and cucumbers at farms along the route. Then they would return to Mexico for Christmas, and start the cycle all over again come spring.

"Some kids might think it would be fun to travel like that," Hernandez laughs, "but we had to work. It wasn't a vacation."

After graduating high school in Stockton, Hernandez enrolled at the University of the Pacific in Stockton, where he earned a degree in electrical engineering and was awarded a full scholarship to the graduate program at the University of California in Santa Barbara, where he continued his engineering studies. In 1987 accepted a full-time job with Lawrence Livermore National Laboratory, where he had worked as a co-op in college.

In the early 1990s, his work at Lawrence Livermore with a commercial partner led to development of the first full-field digital mammography imaging system, a tool in the early detection of breast cancer. Most recently, he has worked as a NASA engineer at Johnson Space Center in Houston, supporting Space Shuttle and International Space Station missions.

During the astronaut application process, Hernandez had to meet with a review board. That's where he came face-to-face with his original inspiration: Franklin Chang-Diaz.

"It was a strange place to find myself, being evaluated by the person who gave me the motivation to get there in the first place," Hernandez says. "But I found that we actually had common experiences -- a similar upbringing, the same language issues. That built up my confidence. Any barriers that existed, he had already hurdled them."

Hernandez smiles. "Now it's my turn."

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Shane Kimbrough, Mission Specialist

Many people associate an astronaut career with adventure and glory, but for Shane Kimbrough, it's all about service.

"Service to this nation has always been important to me," Kimbrough says. "The benefits to society as a result of NASA's discoveries are phenomenal. That's what motivated me to want to work here."

Kimbrough, 36, has been selected to begin training this summer as a mission specialist in NASA's 2004 astronaut candidate class. It's a new job that won't take him far from home. He already works for NASA in Houston, as an engineer helping to train astronauts how to land the Space Shuttle.

"My family is ecstatic about my selection," he says. "It is especially nice to be in one place for a while."

Kimbrough has moved around a lot, first as the son of a soldier and now as a U.S. Army officer. He graduated high school at The Lovett School in Atlanta and is a graduate of the U.S. Military Academy at West Point, where he majored in mechanical engineering and was captain of the baseball team. He earned a Master's degree from the Georgia Institute of Technology.

As an Army pilot, Kimbrough trained to fly both airplanes and helicopters and was assigned to fly Apache helicopters. He served in the first Gulf War, Desert Storm in 1991, as a platoon leader in an Apache company. "It was one of the most interesting experiences of my life," he says. "It truly opened my eyes to how fortunate we are as a country."

In his Army career, he also taught math at West Point, including courses such as calculus and statistics. "What an incredibly rewarding experience to interact with the cadets who are now Army officers, defending our country overseas."

Kimbrough, now an Army major, is now married and a father of three. He says his hero is his 90-year-old grandfather.

Kimbrough is setting his sights on the new Vision for Space Exploration. "Once I finish my first year of astronaut training," he says, "I hope to be assigned to several technical jobs so I can improve myself, professionally. But then I'd be thrilled to take on any space mission -- even to the moon or Mars.

"I have been fascinated by space travel since I was a kid," he says. "I want to explore the unknown."

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Tom Marshburn, Mission Specialist

Tom Marshburn has already climbed some of the world's tallest mountain peaks, but he's determined to go even higher. For him, space is the ultimate summit.

Marshburn, a medical doctor, has been selected to train as an astronaut mission specialist beginning this summer, as part of an astronaut class fully focused on fulfilling the new Vision for Space Exploration. He is already a flight surgeon working at NASA's Johnson Space Center in Houston, where he will also do his astronaut training.

"It has always fascinated me how long journeys can change people for the better," he says. "I am just very curious about places that people rarely see." He is a "big fan" of the author Jules Verne, who often wrote about travel adventures in novels such as *Around the World in 80 Days*.

Dr. Marshburn could write travel books of his own. When he was 19 years old, he backpacked all the way from Canada to Mexico. His 3,400-mile trek took him along the Pacific Crest Trail, which runs along the backbone of the Cascade and Sierra Nevada mountain ranges. He says he has climbed mountains all over the world, including Mount Aconcagua on the border of Chile and Argentina. It's the highest mountain in the Western hemisphere.

"Now, I would be very excited to fly into space, particularly to the moon or Mars -- or to be part of the planning process for those missions," he says.

Dr. Marshburn, 43, says his family is excited about all of the adventures that await him.

"My wife is very excited, being a fan of the space program herself, and my older brothers and sisters are thrilled that their 'little brother' made it," he says.

Dr. Marshburn has an 18-month-old daughter, whom he "loves to play with." He also has a cat -- a girl -- named Steve. "We thought of the name before we got the cat," he says.

Through the years, his patients have been among his inspirations, when they have "successfully overcome incredible challenges." He also credits two college physics teachers, as well as his brothers and sisters, for helping him along.

Dr. Marshburn was born in Statesville, N.C. and attended Davidson College, earning a Bachelor's degree in physics. He earned two Master's degrees, first from the University of Virginia and later from the University of Texas Medical Branch. His M.D. is from Wake Forest University.

Through his work at NASA, Dr. Marshburn lived in Russia for two years, working with the International Space Station program. He also served as lead crew surgeon for the 7th expedition to the Space Station.

Even with all the miles beyond him and all of the adventures ahead, Dr. Marshburn says that, for him, "learning is the most exciting journey."

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Dottie Metcalf-Lindenburger, Mission Specialist-Educator

One of Dottie Metcalf-Lindenburger's astronomy students at Hudson's Bay High School in Vancouver, Washington once wanted to know how astronauts use the bathroom in space.

"Mrs. M.L.," as she's known to her students, went to the NASA.gov Web site looking to answer her student's question, and what she found changed her life.

"The educator astronaut position had just been posted," she says. "I got so excited. It seemed so perfect." She got the call in mid-April that she had been accepted to begin astronaut training this summer at NASA's Johnson Space Center. "When this big of a dream comes true, it's unreal."

Metcalf-Lindenburger considers herself a science teacher even when she's outside of the classroom. "My husband and I built a telescope last year and took it on our summer vacation, and wherever we stopped, we showed people things like Jupiter or the moon," she says. "So many of the adults had never even looked through a telescope."

"I guess I see myself as sort of a teacher for all people," she adds.

"A lot of kids aren't necessarily interested in science and math," she says. "But they do get excited about things like the Mars rovers, Spirit and Opportunity. I want to continue to build more connections with the community to get them jazzed about studying science."

Metcalf-Lindenburger grew up in Ft. Collins, Colorado and went to Ft. Collins High School. She has a younger sister who is a math teacher in Chicago, and the siblings often help each other with their lesson plans.

"We're very close," she says. "We had a lot of fun growing up. We were always creating newspapers or putting on shows for our grandparents."

Metcalf-Lindenburger got excited about science in high school when she traveled with a teacher to California to present ideas on how to turn food waste into fuel. She later earned a geology degree from Whitman College in Washington.

Metcalf-Lindenburger is an avid runner, and exactly one week after she was notified of her acceptance for astronaut training, she celebrated another accomplishment: completing the Boston Marathon. She and her husband Jason also enjoy hiking, biking, roller blading, and traveling.

At 28, she is the youngest of the 2004 class of astronaut candidates. Metcalf-Lindenburger says, "I like learning from people who are a little older, who have more life experiences. Sometimes I feel like, because I'm younger, I have to prove myself. Then, I realize I'm fortunate that I have so many opportunities to learn."

"People are doing great things with their lives to further science," she says. "I hope to bring the community into what's going on."

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Bobby Satcher, Mission Specialist

"There's some scientist in me. There's some explorer in me," says Dr. Bobby Satcher. "There's a humanitarian in me also. Space is the one venue that has the highest potential for benefiting people if we continue to be serious about exploring it."

Satcher, 38, a medical doctor who also holds a doctorate in chemical engineering, is one of 11 Americans selected to begin astronaut training this summer at NASA's Johnson Space Center in Houston. "I have always had an interest in service and an interest in science," says the future mission specialist. "I am interested in exploration, too. Becoming an astronaut lets me do all three."

Dr. Satcher comes to NASA from a research post at Northwestern University in Illinois. He's an orthopedic surgeon at Northwestern Memorial Hospital in Chicago. "The focus of my research has been studying how bone cells respond to stresses," he says.

He brings his experience to NASA at a key time, when it's working to fulfill the new Vision for Space Exploration. The vision calls for NASA to focus its research efforts on studying the effects of long-duration space flight. "One problem when it comes to living and working in space is bone loss. I'm interested in looking at ways of preventing that," he says.

In his medical practice, Dr. Satcher treats patients who suffer from cancer in their arms and legs. He teaches doctors-in-training and graduate students as well. "The questions we're interested in are how the skeleton responds to external forces and how cancer spreads to the skeleton.

"It's difficult to predict what the benefits of space travel and space-based research will be to those of us on the ground," he says. "There are things in our lives today -- things that have transformed society -- that are simply the result of exploration."

Dr. Satcher grew up in Hampton, Va. and attended Denmark-Olar High School in Denmark, S.C. He earned a Bachelor's degree in chemical engineering from the Massachusetts Institute of Technology and went on to earn his Ph.D. at MIT, as well. He went to medical school at Harvard University.

"When I was a kid, I spent a lot of time learning about space," he says, a hobby that followed him into adulthood. "I kept up an interest in NASA through college and also in my medical training."

Dr. Satcher is also enjoying his newest title: dad. His wife just gave birth to his first child, a baby girl.

Outside of the hospital, Dr. Satcher is "a low-level runner of races, mostly 10k and 12k races." He also has done some training toward becoming a private pilot, and he has done charitable medical work overseas.

"Things are out there to be discovered," he says. "Some of the things we dream about are now becoming more possible."

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Shannon Walker, Mission Specialist

For a city synonymous with the U.S. space program, Shannon Walker is a hometown girl made good. She was born in Houston, raised in Houston, earned three university degrees in Houston, and beginning this summer, she will begin living out her dream -- where else, but Houston.

Dr. Walker has been selected to begin astronaut training as a mission specialist at NASA's Johnson Space Center (JSC). "Most of my family and friends are very familiar with the human space flight program and with the excitement of becoming an astronaut," she says. "Everyone is quite thrilled."

Dr. Walker is also intimately familiar with space flight. She currently works at JSC, managing a team of engineers that monitors the health of the International Space Station. Her work has also given her the opportunity to live in Moscow, where she worked with Russian engineers, as part of the Space Station program.

"While I was there, I was able to take the Trans-Siberian Railway across Russia and into Mongolia, finishing the trip in Beijing, China. It was a fascinating way to see the countryside," she says.

As an astronaut, Dr. Walker says she would like to fly to the International Space Station, and she is even hitching her star to the new Vision for Space Exploration. "I would love to fly to the moon or Mars," she says.

"I also want to encourage young people to think about what the future can be like if we work together to accomplish difficult goals, such as the exploration of space," she says.

She graduated from Westbury High School in Houston, and she holds a doctorate in astrophysics from Rice University, where she also earned her Bachelor's and Master's degrees.

Dr. Walker says she likes to be outdoors running, biking, playing soccer, camping and hiking. "During and after college, I did a lot of biking and bike touring," she says. "I enjoy traveling and seeing new places -- especially places where I can go hiking."

Dr. Walker, 38, is also licensed as a private pilot and owns her own airplane. She comes from a "fairly large" family. Her father is a physics professor and university administrator, and her mother is a computer specialist. She has three siblings and nine nieces and nephews.

"I wanted to become an astronaut because I believe that the exploration of space by humans is extremely important," she says. "I want to be part of expanding humans' role in space flight."