

By Judy Bass

Blue Hills Regional Grad Fulfills Dream, Becomes Astronaut

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▼ NASA Astronaut Scott Tingle aboard the SEV (space exploration vehicle).



PHOTO COURTESY OF NASA

FRIDAY, NOVEMBER 4, 2011, WAS, AT LEAST FOR MOST OF US, JUST ANOTHER DAY

on the calendar. For Scott D. Tingle, however, that date marked the official culmination of a cherished, virtually lifelong dream of his—becoming an astronaut. It was a goal he had in mind even when he was a high school student in the 1980s at Blue Hills Regional Technical School in Canton, Massachusetts.

On that memorable November day, Tingle, 46, a Commander in the U.S. Navy and a highly decorated pilot, graduated from Astronaut Candidate Training in Houston, Texas. He is currently assigned to the Exploration Branch of the Astronaut Corps to participate in doing the latest cutting-edge research.

“I’ve been working with a few of America’s best contractors in the quest to build a new rocket that will carry people and cargo safely and reliably to and from the International Space Station,” explained Tingle. “I’m also working in our (NASA) heavy lift program that includes a capsule (called Orion), a rocket (Space Launch System, or SLS) and our ground operations program (21st Century Ground Systems Program, or 21CGS). The work has been exciting, as there is much design, process and leadership support needed to get our country’s future human space flight systems up and running.

“I’ve also been fortunate to have spent a couple weeks in the desert supporting Desert Rats, which is a test analog for exploration of asteroids, Mars, the moon, etc.,” Tingle continued. “We got to drive a couple new designs of future Space Exploration Vehicles, and got to live in a

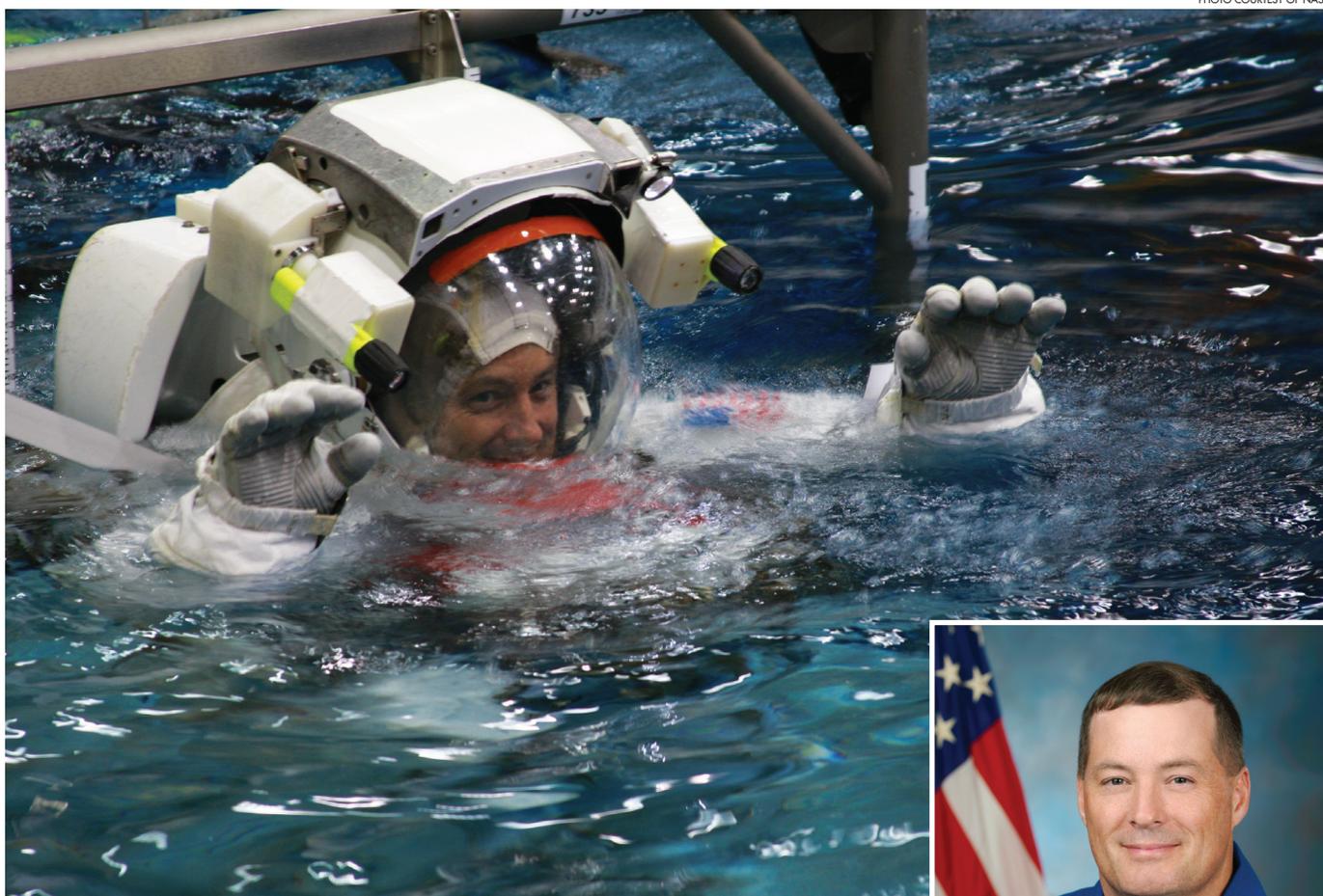
possible future Deep Space Habitat that might be used when we explore other planets. The test was a lot of fun. We got to study the geology of the Black Point Lava Flow in Flagstaff, Arizona, as if we were looking at a new planet for the first time—very exciting with lots of hands-on required!

“I’m also continuing to train for spaceflight by flying the T-38, practicing spacewalks in our Neutral Buoyancy Lab (a pool with a complete mockup of the International Space Station), practicing using the Robotic Arm as we will use on the Space Station and, of course, learning the Russian language. I’m very busy, but it’s also very rewarding to be part of this great team!”

Hometown Boy Makes Very Good

This exceptional young man was born in Attleboro, Massachusetts, but he calls home Randolph, another community in Southeastern Massachusetts where his parents still live. With great pride, anticipation and excitement, Tingle has joined the elite ranks of the men and women working for NASA who probe the mysteries of the heavens, making immense sacrifices to serve this nation in a necessary but hazardous capacity. It is another marquee chapter in Tingle’s already outstanding career.

At Blue Hills, he studied machine drafting and graduated in 1983. He earned a bachelor of science degree in mechanical engineering from Southeastern Massachusetts University (now the University of Massachusetts-Dartmouth), graduating *magna cum laude* in 1987, then got a master of science in mechanical



▲ With spacesuit checked and ready, NASA Astronaut Scott Tingle submerges in the Neutral Buoyancy Lab to begin a six-hour extra-vehicle activity (EVA, or spacewalk) training event on NASA's full-size mockup of the International Space Station.

engineering with a specialty in fluid mechanics and propulsion from Purdue University in Indiana in 1988.

According to Tingle's NASA biography, "Following graduate school, he was commissioned as a naval officer in 1991 and earned his wings of gold as a naval aviator in 1993. He began his operational flying career in 1994. He has accumulated more than 3,500 flight hours in 48 types of aircraft, 700 carrier arrestments and 54 combat missions in Iraq and Afghanistan."

His awards include a Meritorious Service Medal, three Air Medals, six Navy Commendation Medals, including a Combat V, four Navy and Marine Corps Achievement Medals and various unit

commendations. But the best was yet to come for Tingle, a milestone achieved by only a select few—being named as one of 14 men and women in NASA's 20th astronaut class. Tingle remembers that extraordinary day, June 29, 2009, very well. Upon hearing that he had been chosen out of about 3,500 applicants, he said, "I was speechless. I had thought of that day for pretty much 40 years. I was obviously elated with happiness and enthusiasm."

Tingle said that NASA doesn't specify exactly what the criteria for picking the astronaut candidates are, but he cited a few elements that he believes are heavily considered, such as a solid career track, academic and personal background, flight



PHOTO COURTESY OF NASA

experience, personality and willingness to be part of a team.

"They want a really highly qualified person to do a job in an extreme environment," Tingle explained.

The depictions of space travel in popular films like "Apollo 13" are "pretty real," Tingle noted, but he cautioned that what he called "the wow stuff" is only about 10 to 15 percent of it. You don't get a feel for the nuts and bolts actuality of it until you live it, Tingle said. His acceptance into the class would be the start of a



PHOTOS COURTESY OF NASA

- ▲ Tingle investigated new exploration concepts and techniques while driving a futuristic Space Exploration Vehicle through the Black Point Lava Flow in Flagstaff.

- ▲ Tingle investigating an outcrop of lava at the Black Point Lava Flow in Flagstaff, Arizona, using basic geologic techniques and observations as he would while visiting another planet.

protracted and grueling process of technical classroom instruction, field training, trips to Germany and Japan to see their space programs, and T-38 flight training. (Tingle said that given his expertise and know-how in this area, he was able to help his classmates become more acclimated to these sophisticated aircraft.)

There was also “Extravehicle Activity Training,” which consisted of donning a 200-pound space suit (just learning how to get into this cumbersome gear was “a bear,” Tingle confirms), then going underwater to perform various duties like releasing and installing lines, working with robotic arms, and talking to Mission Control in conditions roughly simulating those found on the Space Station. In

addition to learning how to maintain and troubleshoot every system on it, Tingle said that he and the others also had to achieve “intermediate low-level fluency” in the Russian language because the Russians are our primary partner in this venture.

The survival readiness entailed finding food, navigating, building structures and knowing emergency medical care. Sounding unfazed by all the intense physical and mental rigors of the previous several months, Tingle proclaimed it “great training.” Another type of training, his Blue Hills high school education, has also proven valuable. Today, nearly 30 years after Tingle graduated, he said, “Having that vocational background was abso-

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lutely huge [in my life]. Blue Hills was the right choice for me.”

At the school, Tingle said that he designed equipment, did work/study, welded, drilled, took college-level courses, and as a result, can fix everything in his house in League City, Texas.

“Blue Hills has a really good culture that promotes a work ethic,” he declared. “You’ve got an unstoppable equation going there.”

One of Tingle’s now-retired Blue Hills teachers, Bill Cahill, remembers him vividly. Calling him “one of the most liked students in the senior class,” Cahill said he was a “super student who was a pleasure to be around.”

“If I had a class of Scott Tingles,” Cahill noted, “I’d probably be teaching for another 30 years.”

Not Without Sacrifice

The unseen downside of Tingle’s demanding, peripatetic career, though, is the wear and tear on his family life. He said that in the last 10 years, he has only been able to come back home to Massachusetts to visit maybe three or four times. As for his wife, Raynette, and their three children—a 17-year-old daughter and two sons, 15 and 9 respectively—they have had to adjust to frequent separations and sacrifice. Tingle’s wife has handled the lion’s share of the caregiving and child-rearing in his absence, he said, and his daughter has moved six times in her young life due to her father’s 28 years of military service.

“My kids are actually very strong,” Tingle pointed out gratefully, and the

same surely applies to his wife. Now, having finally realized his dream-of career goal, Tingle said that serving his nation “means everything.”

Referring to being an astronaut, he said that 20 years ago, he would have called it “a really cool job.” Ten years ago, he’d have said “it’s awesome to be part of a team.”

“This time,” he said, “I want to serve. That is the part that really makes me tick.” **T**

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