

How do you learn to land a shuttle? **Start by soloing as a CAP cadet**

By Capt. Steven Solomon



Space Shuttle Endeavour's drag chute deploys as it rolls down Runway 04L at Edwards Air Force Base moments after landing on Nov. 30, 2008.

Photo courtesy of NASA

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After a 15-day mission to the International Space Station, it was time for Space Shuttle Endeavour to come back to Earth. The return on Nov. 30, 2008, was anything but routine.

First, a weather front with high crosswinds and thunderstorms was approaching the prime landing site at NASA's Kennedy Space Center in Florida, so mission managers decided to divert STS-126 to the backup location at Edwards Air Force Base, Calif. And then there was the matter of the main runway at Edwards being out of service because of maintenance, and the temporary runway being 3,000 feet shorter and 100 feet narrower than the main runway.

But for shuttle pilot Eric Boe, a senior member of Civil Air Patrol's Florida Wing, something seemed familiar.

“In a lot of ways, they’re very similar,” he said when comparing his first landing as a 16-year-old CAP cadet at a Georgia Wing flight encampment to landing a space shuttle for the first time. “Both were very exciting, but it was what I expected.”

That’s because Boe had practiced shuttle landings on a temporary runway in a jet that was modified to simulate a shuttle’s cockpit, motion and visual cues, and handling qualities. In flight, the aircraft duplicates the shuttle’s atmospheric descent trajectory from approximately 35,000 feet to landing.

“I got to fly the space shuttle as a glider. I flew it from the 180-degree turn to the 90-degree turn. We did a pull-up toward the field. At 300 feet I put the landing gear down. The real challenge is to get a nice deceleration.”

Noting that as pilot his primary role was to back up the shuttle commander as another set of eyes, Boe said he called out key points on a heads-up display to ensure the instruments matched up to reality.

“I’m checking radars. Speed breaks. Preflair. As you get closer, the calls get tighter.”

While Boe was doing this, he had support from six CAP California Wing members who assisted NASA during the landing as part of the Air Force Flight Test Center Shuttle Recovery Team. They took high-resolution photos of the orbiter from a CAP GA-8 Airvan and sent them via satellite phone back to the command



Photo courtesy of NASA/Tony Landis

STS-126 Commander Chris Ferguson, at the microphone, thanks employees of NASA’s Dryden Flight Research Center for their support of Space Shuttle Endeavour’s landing at Edwards Air Force Base in California. With him are, from left, astronauts Heidemarie Stefanyshyn-Piper, Eric Boe, Steve Bowen, Shane Kimbrough and Donald Pettit.

post. The images allowed NASA to see what was happening to the orbiter as it landed.

“The colors were truly amazing, so vivid and vibrant. It looked surreal,” Boe said. “You can really see our world is living.”

Touchdown for the seven astronauts aboard was at 4:25:22 p.m. EST.

Boe returned with a CAP seal and the Gen. Carl A. Spatz Award coin he took with him into space in honor of his CAP cadet experience.

He has been a regular speaker at CAP’s annual summer Air Force Space Command Familiarization Course at Patrick Air Force Base, Fla. One of the things he wants to do as soon as possible is speak again to the cadets, who always ask for advice on how they too can someday be an astronaut.

Boe’s suggestion: “Find something you love to do. Pursue your dreams. Dream big. Keep pursuing your goals.” ▲