



Yesterday's Pioneer BG Robert Stewart U.S. Army retired

Brigadier General (retired) Robert Lee Stewart, astronaut and Space pioneer famous for being one of the first two men to walk untethered in Space, has a long list of other achievements that also mark him as a pioneer, most notably being the test pilot who assisted in bringing the Apache helicopter into the Army inventory. Retired from the Army, he spoke to Army Space Journal's MAJ Laura Kenney at his home in Woodland Park, Colo. He spoke about the role of Space in current events, the tragedy of the Space Shuttle Columbia and how Space will assist in Army Transformation.

Transformation of any sort requires people who aren't afraid to step out, to take chances, who possess the pioneer spirit. Anyone who's worn the title of astronaut definitely fits that description. But you've had some other job descriptions that mark you as a pioneer, General. Test pilot, Vietnam veteran and combat helicopter pilot. Can you tell us what first drew you to flight, first in the air and then in Space?

Actually, I think the primary attraction for me has always been, first and foremost, wanting to be a soldier. Everything else came from that. My whole family had been military, and my father was a private first class during WWII, as an artilleryman. At the age of 11, I was camping out with the National Guard during summer camp, serving as their mess boy.

Flying — well, that's the way I worked my way through college. I attended ROTC at the University of Southern Mississippi. While there, I flew as a commercial pilot and as an instructor. About the only

thing I didn't do was crop dusting. By the time I joined the Army, I had over 2,000 hours of flying, and they STILL branched me Air Defense Artillery. I didn't get branched Aviation until a year and a half later.

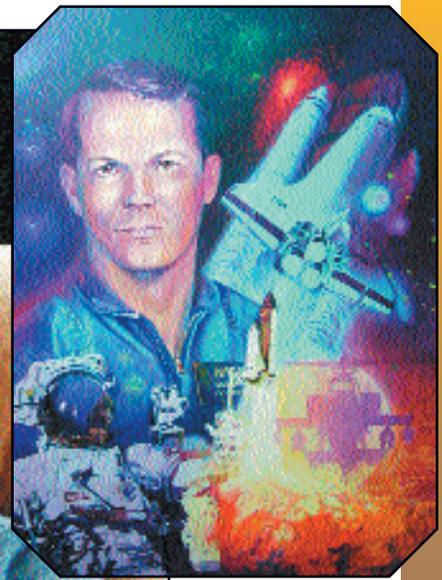
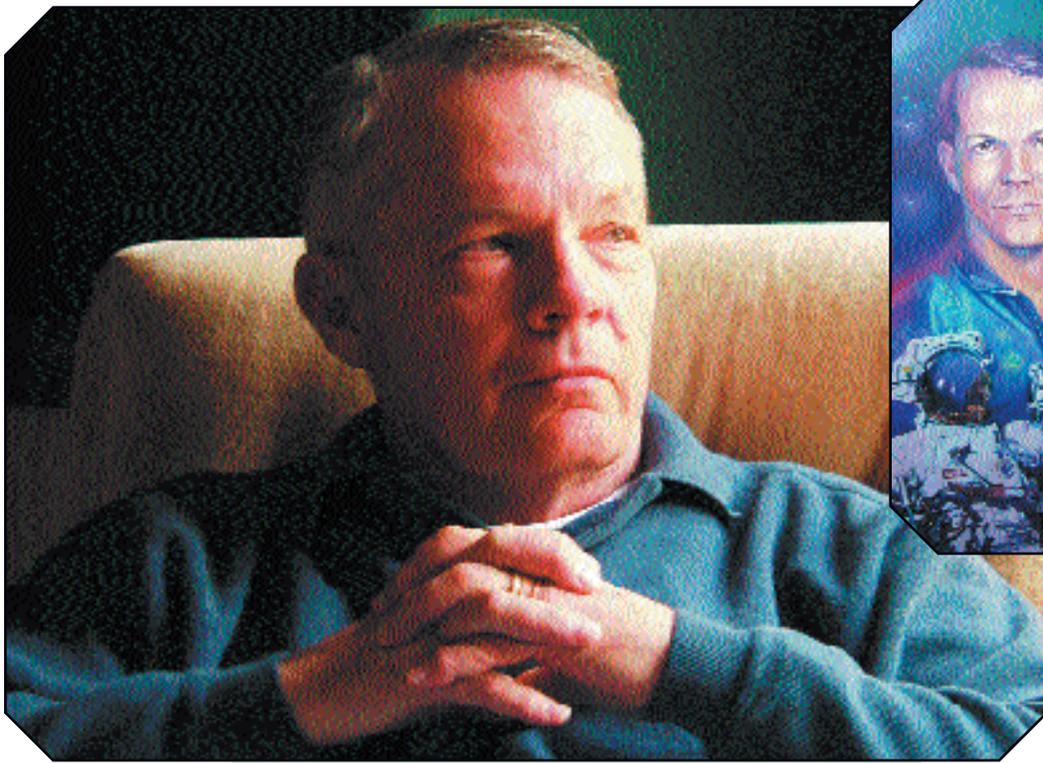
Flight was always something that appealed to me. But even though I read science fiction as a kid, and still enjoy a Star Wars movie, I see those as fantasy. There are enough real things to do in Space to make it fascinating.

Of all the many hats you've worn, Vietnam pilot, Air Defense Artilleryman, the test pilot who brought the Apache into the Army inventory, astronaut, and general officer, which one was the most personally rewarding, and why?

Hands down, my service in Vietnam was the most personally satisfying. To be in combat with a bunch of guys that you feel closer to than anyone else in the world ... and then to lead those men into combat — now THAT'S responsibility. I always joke that I had more responsibility as a gun platoon leader/first lieutenant than I did as a general officer.

What was it like, to be testing a totally new piece of equipment (the Apache) and are you proud of its performance since it became the combat helicopter of choice?

I'd call my efforts with the Apache the most gratifying of my military experiences. Flying an awesome machine like that before it was housebroken? The Apache is the best-armed helicopter in the world — nothing else even comes close.



What drew you to Space and how and when did you decide to become an astronaut?

That's actually kind of funny. It wasn't as if I'd been planning and praying for it all my life. I just happened to notice what was basically an advertisement seeking astronauts on the bulletin board at Edwards Air Force Base. That was back in 1977. I applied, and ... got the job.

What role do you see Space playing in current operations, such as war with Iraq?

I know that we've got some very sophisticated hardware, but I'm not privy to exactly what we have now. I do know that we have excellent strategic level intelligence due to Space assets. Other Space-based or related products will improve our ability to move, shoot and communicate, all critical functions of the Army. The Global Positioning System is a phenomenal benefit to be used in a multitude of ways, not least in helping us make friendly fire casualties a thing of the past. In the first Gulf War, we won a stunning tactical victory — but not a war. I'd like to see us win the war, and Space and the Army will play crucial roles in that.

And in the future? Are there boundaries? What sort of future do you see for the Army's role in Space?

Well, in one sense, the old cliché of "the sky's the limit" is true, because the potential is enormous, but in others, well, boundaries are set by what is realistically possible. By that I mean, I can envision colonizing Mars, building an underground outpost for civiliza-

tion, but doubt we'll go past our own solar system, at least not for hundreds of years, because the means to do so have not yet been invented. It would require a fundamental breakthrough in physics. But bringing it in closer, Space has vast potential. Anything that helps the Army move, shoot and communicate, as I said before, is a good thing, and Space can aid us enormously there. But do I see actual battles taking place in Space? No, I (smiling) think that's an Air Force vision. We live on Earth, and that's what matters to us as human beings. And anything worth fighting for, no matter how sophisticated we get, requires boots on the ground, which is where the Army comes in.

To narrow the focus of the last question, do you envision a role for the enlisted soldier in Space? You've worked with CW3 Tom Hennen, the first warrant officer in Space ... when do you think the first enlisted astronaut could "come on board?"

That was actually a vision of mine, to bring an enlisted photo interpreter with us. I wanted to see an enlisted man wearing astronaut wings — and it will happen, but can't give you a timeline.

Was your untethered walk the most exciting thing you accomplished in Space? If not, why, and what was?

I'd have to say the most exciting event in going to Space is always the liftoff. Nothing beats that. But the walk was definitely a thrill. Another astronaut, John Young, who was, without a doubt, known throughout his distinguished career as a daredevil almost without



peer, actually said to me “That (my untethered walk) was the craziest and bravest thing I’ve ever seen.” I looked at it that, as a test pilot, I was now flying higher and faster than I’d ever flown before.

In your opinion, why hasn’t, to date, an Army astronaut piloted the Shuttle?

Let’s just leave it at — politics. But I do think that NASA got a kick out of asking me, “the helicopter pilot” as they called me, to write the flight re-entry manual for the shuttle, instead of any of the jet pilots. I was simply chosen because I was the test pilot with the most experience.

And piggybacking on that last question ... as you know, and serve as one of the many illustrious examples of, the Army is very proud of its lineage as being “first in Space.” Now, when most people hear the phrase, “Army Space,” their first reaction is “Huh, the Army in Space? The Army is about ‘ground’ warfare, what’s it doing in Space?” Does this mean we’ve lost that edge, given it up to the Air Force, or is this just a problem of perception, are we still as valid now as we were when you took that historic trip outside the Challenger in 1984?

“First in Space” is right. We have the lineage going all the way back, as you know. But, I think we lost ‘ground’ in Space during Vietnam. We were simply too busy. Congress has always leaned toward the Air Force for the “high tech” aspect, and, truthfully, we are “muddy boots.” But I’ll remind you that the

rocket that put men on the Moon was an Army rocket, and, if not for political reasons, we, the Army, could have beaten the Russians into Space. We were ready before Sputnik. We did beat out both Navy and Air Force with a rocket that worked.

As for today, of course we’re viable. The best “muddy boots” in the world, made even faster and more efficient with Space technology? Unbeatable.

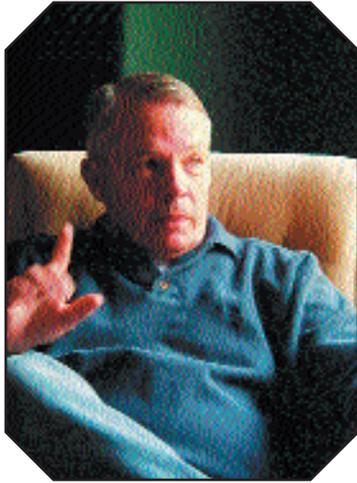
When people think about pioneers today, those pioneers wear the faces of those lost on the Columbia. That must have been a very hard day for you, as indeed it was for the nation and world. We know you can’t speculate about possible causes of the disaster, although you’ve flown on two shuttle missions yourself, with STS 41-B (Challenger) and the STS-51J, Atlantis’ first flight, as well as having written the manual for flight re-entry control procedures, but can you tell us whether you foresee a future for the Space shuttle as it is configured today, and, overall, for a Space exploration program?

The Space shuttle needs to be retired. It’s done great things, but it’s time to move on. NASA should be thinking about the exploration of Space. We should already have something self-sustaining on the Moon, as practice for Mars. Replace the shuttle with something more sophisticated, such as a single stage, re-usable orbiter, or even let that part of the program go commercial.

What words would you say to young people considering a future as an astronaut? Or any possible career involving Space? We know your daughters taught at the U.S. Space Camp, which issued a statement after the Columbia disaster to the effect that “the mission continues, the mission of preparing the scientists, explorers and leaders of the future.” Would you still recommend such a future to today’s young person?

It’s funny, one of my daughters actually didn’t really know much about my career until she heard about it in Space Camp. In Houston, astronauts (smiling) were a dime a dozen, and I guess we never went into it much at home. But, I think the Space Camp has a great program. I would certainly encourage young people to consider it, but, instead of targeting a career as an astronaut, I would rather say that they should prepare themselves to be capable, so that if that day ever comes when you see a notice on the bulletin board... you can play your part. There isn’t enough interest in science or math today, which is sad. I’d say the most important characteristic for anyone who has dreams of Space is — to be a self-starter. Everything else would follow from that. Again, the sky’s the limit.

BELOW: Then LTC Robert Stewart makes his historic space walk during the 1984 Challenger space shuttle mission. Using the Manned Maneuvering Unit, he and Navy CAPT Bruce McCandless II became the first two human beings to 'walk' untethered in Space. The MMU utilized small nitrogen-gas jets to maneuver, enabling the astronauts to venture approximately 300 feet from the main ship. Photo courtesy NASA



BG (Ret.) Robert Stewart during an interview at his mountain home in Colorado Springs, Colo. Photos by SFC Dennis Beebe

