

SOLDIERS OF VISION: We Don't Stop When We Take off the Uniform

By Edward B. Kiker

The *Army Space Journal* recently presented a great piece on Edgar Allen Poe, the poet and novelist, who had served in the U.S. Army as a sergeant major. There have been many other service personnel who went on to great fame or influence, and some of them looked with great perspicacity into the dim fog of the future. Here are a few who served, then involved themselves with visions for the future.

Gene Roddenberry — “Star Trek” Creator

Gene Roddenberry, the creator of the “Star Trek” sagas volunteered for the U.S. Army Air Corps and was a flying cadet at Kelly Field, Texas as WWII began.

Second Lieutenant Roddenberry flew B-17 bombers out of Guadalcanal in the South Pacific. He flew missions against enemy strongholds at Bougainville and participated in the Munda invasion. He took part in 89 missions and sorties, and was awarded the Distinguished Flying Cross and the Air Medal.

This was also where he started his writing career, selling stories to aviation magazines, and later poetry. After combat, he became an air crash investigator for the Air Force working out of Washington, D.C. When the war was over, he joined Pan American World Airways, while studying literature at Columbia University.

On a flight from Calcutta, India one evening, his plane lost two engines and caught fire in flight, crashing in the Syrian Desert. As the senior surviving officer, Roddenberry sent two Englishmen swimming across the Euphrates River to find the source of a light he had observed just prior to the crash. While they were gone and his remaining party was very vulnerable, he parleyed with nomads who had come to loot the dead. The Englishmen reached a Syrian military outpost, which sent a small plane to investigate. Roddenberry and the small plane returned to the outpost, and he asked Pan Am to send a stretcher plane to the rescue. Roddenberry received a

Civil Aeronautics Commendation for his efforts during and after the crash.

Roddenberry later went on to create the “Star Trek” television series and was a technical advisor for the Star Trek films. His grounding in the sciences was a basis for many aspects of “Star Trek” technologies, some of which have now come true, such as transparent aluminum, an aluminum ceramic. It is now under development as transparent armor for riot gear face and body shields, and may be used for HMMWV windshields and other applications.

James Doohan — “Star Trek” Star

In WW II Captain James Doohan landed on the beaches of Normandy with the Royal Canadian Army on D-Day and was wounded there. He then became a pilot-observer, and was known as “the craziest pilot of the Canadian Air Force,” flying into dangerous situations to obtain intelligence. After WW II he went into acting, featuring in over a hundred films. He is today best known as “Scotty,” chief engineer on the Starship Enterprise of “Star Trek” fame. When he first took the role of Scotty he thought it was a small part in a short-lived show. But it was during “Star Trek” that he met Gene Roddenberry. Doohan gained a strong personal appreciation for the potentials of Space exploration. He became a spokesman for Space exploration, often attending and speaking at conferences and schools without pay to encourage people to envision the unlimited possibilities available through Space exploration. I was fortunate enough to meet and talk with him at one of these conferences.

Dr. Peter E. Glaser — Inventor of the Solar Power Satellite

As I interviewed Dr. Glaser for this article, he told of his escape from the Nazi takeover of Europe in 1939. He was born in Czechoslovakia, but fled to England where

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he attended Leeds College of Technology. He then enlisted in the Free Czechoslovak Army, and became a PFC in an armored battalion crewing British-built tanks. As the Allies raced across France his unit was attached to a unit of the U.S. Army, and participated in the victory parade in Prague with the permission of the Red Army.

“They inspected us to make sure we had no ammunitions in our tanks and trucks. This convinced me that we were under USSR occupation, and that I had better leave as soon as possible or be subjected to working in coal mines or other push jobs which the USSR had in mind for members of the Free Czechoslovak Army.” Dr. Glaser managed to come to the United States, and earned his Ph.D. at Columbia University in 1955.

Today he has become a world-renowned Space technologist. He designed the solar-powered laser device taken to the Moon on Apollo 11. It precisely measures the distance between the Earth and Moon. Today it is the only piece of Apollo 11 equipment still functioning on the Moon.

Dr. Glaser invented the Earth-orbital Solar Power Satellite, or SPS, and the Moon-based Space Solar Power System, or SSPS, that may become major sources of electrical energy for Earth in the future. The SPS is a very large photo voltaic structure (miles on a side) designed to be built in geosynchronous orbit to produce electricity from sunlight and beam it to Earth by low-density microwave to a ground receiving antenna, then into existing electrical grids. The SSPS is a similar structure, but built on the Moon of Lunar materials. SSPS is the preferred system as it is more easily built, expanded and serviced.

He became vice president for Space Operations at the Arthur D. Little Company, Massachusetts, and in cooperation with Raytheon Company and others, developed, built and demonstrated the actual hardware microwave transmitting and receiving antenna technologies. His SPS work was the inspiration for the U.S. Army Space-based Theater Electric Power System, or STEPS, a smaller version of the SPS, proposed by the U.S. Army Space Institute (TRADOC) to DARPA in 1989. The SPS idea is being actively developed today in Japan, Russia, China, India, and Europe. Dr. Glaser advocates using the International Space Station for a proof-of-principle experiment to transmit microwave energy from its solar photo voltaic arrays to a receiving antenna on the ground as it passes over. He is also thinking of having the receiving antennas floating in the ocean.

Dr. Glaser regards the Army as more forward-looking than some of the other services, and follows Army technology developments with interest, particularly the High Altitude Airship, or HAA Advanced Concept Technology Demonstration. He has suggested beaming power to the HAA from the ground with microwave energy to replenish its energy storage systems, and from an HAA to provide early entry electricity support



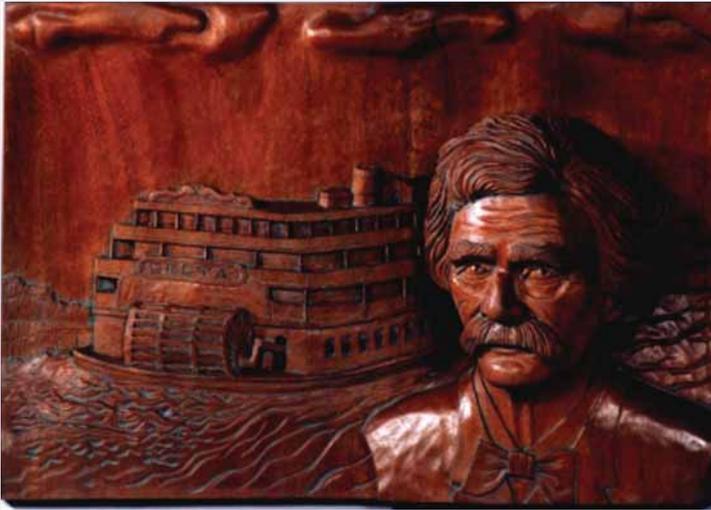
Bob Keeshan – Captain Kangaroo

Bob Keeshan, children’s television performer was a U.S. Marine in World War II. He served on Iwo Jima, and was awarded the Navy Cross for valor. After the war he worked as a receptionist at NBC Radio in Manhattan, taking on small acting parts. His next job was as a stage assistant on the “Howdy Doody Show.” He soon gained national acclaim on the show as Clarabell the Clown, a mute clown who communicated by honking a horn. He is best known as Captain Kangaroo on the children’s television serial by the same name, where he changed the future course of children’s education by introducing them to science, literature, and music in a manner that was exciting and enjoyable. His entertaining educational methods have been widely copied on television and in schools.

Arthur C. Clarke -- Novelist and Futurist

During World War II, as a Royal Air Force officer, Arthur Clarke was in charge of the first radar talk-down equipment during its experimental trials. His only non-science-fiction novel, *Glide Path*, is based on this work. In 1945 he published the technical paper “Extra-terrestrial Relays” laying down the principles of the satellite communication with satellites in geostationary orbits -- a speculation realized 25 years later. His invention has brought him numerous prestigious honors. Today, the geostationary orbit at 42,000 kilometers is named The Clarke Orbit by the International Astronomical Union.

Among his many writings are *2001: A Space Odyssey*, *2010: Odyssey Two*, *2061: Odyssey Three*, *The Promise of Space*, *Reach for Tomorrow*, *Islands in the Sky*, *The Sands of Mars*, *The Hammer of God*, *Tales from Planet Earth*, *Report on Planet Three*, *Imperial Earth*, *The Exploration of Space*, *Master of Space*, *Rendezvous with Rama*, and many more.



Samuel Langhorne Clemens — Mark Twain

Most readers know Clemens by his nom-de-plume, “Mark Twain,” creator of *Tom Sawyer*, *The Adventures of Huckleberry Finn*, *Tom Sawyer Goes Abroad*, and many more popular stories set before, during, and just after the Civil War.

As a Mississippi riverboat pilot, Samuel Clemens fulfilled a childhood dream when he apprenticed to this job. After 18 months of training he navigated the Mississippi with its ever-changing mud banks and sand bars. When the Civil War closed traffic on the river in the spring of 1861, Clemens volunteered for the Confederate Army. Not finding this to his liking, he deserted to join his brother who was an abolitionist territorial secretary in Nevada. He moved to Carson City, tried his luck with timber, then mining, then finally found a measure of success in 1862 as a feature writer for the *Virginia City Territorial Enterprise*.

His personal interests in celestial navigation, astronomy, manned powered flight, cartography, and other sciences were shown in *Tom Sawyer Goes Abroad*. In the story, Tom Sawyer and two friends travel from New Orleans to Egypt in a powered balloon.

Clemens humorously predicted that Halley’s comet would next return at the time of his own death, since his birth coincided with the comet’s 1835 appearance. This prophecy was fulfilled in 1910 when he died at his home in Redding, Connecticut.

Power to Create the Future

I encourage all readers to use the knowledge gained throughout life to inspire future generations. You can imbue them with an appreciation of

the potentials of Space exploration and Space enhancement of future military and commercial technologies. Whether you are a Soldier, Airman, Marine, or civilian, you can have an impact on the future -- just like Private First Class Peter Glaser and the other notable people profiled above. All of us have the power to create the future.

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