



**AIAA/IEEE(AES)
Joint Section Meeting**

Thursday, September 14, 2017

**Ronald McCaffrey
Grumman Project Manager, retired**

“Soviet & United States Space Shuttle Programs”

**Location: Bethpage Public Library
47 Powell Avenue
Bethpage, NY 11714**

**RESERVATIONS REQUESTED
RSVP BY Sept. 13, 2017
to: davidsparis@twc.com
or 516-458-8593**

**Time: 6:00 PM Social Time
6:30 PM Pizza
7:00 PM Presentation**

**Cost for Pizza: \$5, Members and Guests
Free, for Students**

The US Space Shuttle flight operations of Discovery, Endeavour, and Atlantis ended in 2011 after 134 successful launches, one launch failure (Challenger), and one reentry failure (Columbia). The Shuttle program started in 1977 with approach and landing tests performed by Enterprise, and orbital flights by Columbia in 1981. Space Shuttle reusable vehicles were designed to replace all expendable launch vehicles being used for launch of US civil, commercial, and military spacecraft. In the early 1970's, the USAF began converting the old Titan III launch complex, SLC-6 at Vandenberg Air Force Base, to support classified military space missions. The first Space Shuttle launch from Vandenberg was scheduled for 1986, but after the Challenger disaster, this facility was placed in hibernation and eventually closed. The USSR viewed America's reusable launch system as a military threat and proceeded to develop their own Buran Energia Space Shuttle concept. The Buran only flew in space once in 1988 and the program was cancelled in 1993, after the Soviet Union dissolved. Ron will focus on a unique AIAA Space Systems Technical Committee visit to Russia to discuss their Soviet manned space programs in 1990. Several technical groups were invited, during Mikhail Gorbachev's Glasnost regime, to discuss Soviet space programs and explore increased Soviet involvement in the AIAA. Ron will also discuss Soviet space program legacies.

Ronald is a retired aerospace engineer and instrument rated private pilot. He was a key member of Grumman Aerospace's Space Station Engineering and Integration Division in Reston VA, which supported NASA in managing the Space Station Freedom Program, later renamed the International Space Station Program. In Grumman's Bethpage Space Systems Division, he managed Space Station design contracts for NASA/HDQ, DOD/USAF, and Rockwell Space Systems. He led NASA-Boeing subcontracts on unique Space Station satellite servicing applications and for construction of very large 5GW solar power satellites. He also led contracts for NASA/ERDA on innovative space power concepts and worked on LM/AES, Space Shuttle, and Space Tug. He began his career at Republic Aviation where he tested structural components of the RF84-F, XF-103, and F-105 aircraft. He also worked on conceptual aircraft and spacecraft programs. Ron has been a volunteer docent at the Smithsonian Air and Space Museum and is now a docent at the American Airpower Museum at Republic Airport. He is an AIAA associate fellow.

Directions: The library is west of Route 135 in Bethpage. Take Route 135 to Exit 8, then West on Powell Ave. for about 0.25 miles. The library is on the south side of the street. Park across Powell Ave., opposite the library.