FORECAST OF UPCOMING ANNIVERSARIES -- NOVEMBER 2018

95 Years Ago – 1923
November 18: Alan Shepard born in East Derry, NH.

60 Years Ago -- 1958
November 7: Last flight of X-1E rocket plane; pilot John McKay, Edwards AFB.
November 8: Pioneer 2 launched by Thor Able at 2:30 a.m., EST from Cape Canaveral, Fla. It was the third and last launch of the Department of Defense’s Project Able. Designed as a lunar probe to be used during the IGY, Pioneer 2 failed after reaching an altitude of 963 miles when the third stage of the Thor did not ignite.
November 26: Administrator T. Keith Glennan officially approves the name Project Mercury for the US’s first manned space program.

55 Years Ago - 1963
November 11: Apollo Boilerplate #6 launched aboard Little Joe II at White Sands Missile Range, NM. First successful off-the-pad abort test of the Apollo launch escape system.
November 22: Relay 1 transmits the first live TV signals across Pacific via communications satellite. Event transmitted is the assassination of President John F. Kennedy.
November 25: Explorer 18 launched by Thor Delta at 10:24 p.m. EST from Cape Canaveral, Fla. First of the Interplanetary Monitoring Platform (IMP) Explorer satellites designed to observe interplanetary space and its interactions with Earth’s magnetosphere.
November 27: Atlas-Centaur stage entered orbit, after launch from Cape Canaveral, Fla at 2:03 p.m., EST. The flight marked the first successful use of liquid hydrogen as a rocket fuel in space.
November 29: In Executive Order Number 11129, President Lyndon Johnson renamed Cape Canaveral peninsula in Florida in honor of the recently assassinated president. The new name, Cape Kennedy, lasted until 1973.

50 Years Ago – 1968
November 8: Pioneer 9 launched by Thor Delta at 4:46 a.m., EST from Cape Canaveral, Fla. The spacecraft was last of the interplanetary series of Pioneer probes.
November 10: Zond 6 launched by Proton K from Baikonur at 19:11 UTC. Unmanned test for Soviet circumlunar flight program. Conducted a successful circumnavigation of the moon, but crashed during reentry and destroyed its biological payload.

45 Years Ago – 1973
November 1: First test of supercritical wing using an F-111, DFRF, CA. Supercritical wings reduce shockwave on leading edge of wing, increasing lift and lowering fuel consumption.
November 3: Mariner 10 launched by Atlas Centaur rocket from Cape Canaveral at 12:45 a.m. EST. Designed to conduct flybys of Venus and Mercury. Mariner 10 was first spacecraft to explore the planet Mercury and the first spacecraft to use gravitational pull of one planet (Venus) to reach another (Mercury).
November 16: Skylab 4 launched by Saturn 1B, at 9:01 p.m., EST from KSC. The flight would be the last flight of Skylab program. Crew: Gerald P. Carr, Edward G. Gibson, and William R. Pogue. Crew set US long duration flight record of 84 days.
**40 Years Ago -- 1978**

November 13: High Energy Astronomy Observatory 2 (HEAO 2), also known as Einstein, launched by Atlas Centaur rocket, 12:24 a.m., EST, Cape Canaveral, Fla. Second in a constellation of three X-ray telescopes.

**35 Years Ago -- 1983**

November 28: STS-9 (Space Shuttle Columbia) launched, 11:00 a.m., EST, KSC. Fifth flight of space shuttle Columbia. Crew: John W. Young, Brewster H. Shaw, Owen K. Garriott, Robert A. Parker, Byron K. Lichtenberg, and Ulf Merbold (Germany), the first non-American to fly on the Space Shuttle. STS-9 was also the first flight of the Spacelab orbiting laboratory. The flight’s commander, John Young, became the first person to fly in space six times. Landing: December 8 at Edwards AFB Calif., 3:47 a.m., PST. Mission Duration: 10 days, 7 hours, 47 minutes.

**30 Years Ago – 1988**

November 15: Buran space shuttle launched on Energiya rocket from Baikonur at 3:00 UTC. The first and only flight of the Buran, and the first flight of an unmanned orbital winged vehicle.


**20 Years Ago -- 1998**

November 20: Zarya, first module of the International Space Station (ISS) launched on a Proton K from Baikonur at 6:40 UTC.

**10 Years Ago -- 2008**

November 15: STS-126 (Space Shuttle Endeavour) launched, 7:55 p.m., EST, KSC. Crew: Christopher J. Ferguson, Eric A. Boe, Sandra H. Magnus, Stephen G. Bowen, Donald R. Pettit, Robert S. (Shane) Kimbrough and Heidemarie M. Stefanyshyn-Piper. Delivered construction materials and equipment to the International Space Station (ISS). The main objective was to enhance the ISS to accommodate six astronauts, instead of the previous maximum of 3. Crew conducted four spacewalks to repair the solar array orientation joints. Landing: Nov. 30, Edwards AFB, Calif., 1:25 p.m. PST. Mission Duration: 15 days, 20 hours, 29 minutes.

**5 Years Ago -- 2013**

November 11: Soyuz TMA 11M launched aboard a Soyuz rocket at 4:14 UTC from Baikonur. Crew: Mikhail Tyurin (Russia), Koichi Wakata (Japan), and Richard Mastracchio (US). Ferry flight to the ISS. Crew docked to the ISS at 10:27 UTC.

November 18: Mars Atmosphere and Volatile Evolution (MAVEN) launched at 2:28 p.m. EST, Cape Canaveral, Fla. MAVEN is designed to examine the Martian atmosphere and its interaction with the solar wind, attempting to understand the loss of volatile chemicals and the history of the Martian climate.