FORECAST OF UPCOMING ANNIVERSARIES -- NOVEMBER 2015

80 Years Ago - 1935
November 11: Captains Stevens and Anderson, U.S. Army Air Corps, reached an altitude of 14 miles (74,000 feet) in stratospheric balloon Explorer II; take-off was at Rapid City, SD, and landing eight hours and 12 minutes later 340 miles away near Aurora, NE.

60 Years Ago - 1955
November 18: First powered flight of Bell X-2, piloted by Lt. Col. Frank Everest, Edwards AFB, CA.

55 Years Ago - 1960
November 3: Explorer 8 launched by Juno II, 12:23 a.m., EST, Cape Canaveral, Fla.
November 8: Little Joe V failed, 10:18 a.m., EST, Wallops Flight Facility (WFF), VA.
November 21: Mercury-Redstone (MR-1) failed, 8:00 a.m., Cape Canaveral, Fla.
November 23: Tiros 2 launched by Thor Delta, 6:13 a.m., EST, Vandenberg AFB, CA.

50 Years Ago - 1965
November 6: GEOS 1 (Explorer 29) orbited by a Delta, 1:39 p.m., EST, Cape Canaveral, Fla.
November 16: Venera 3 crash-landed on Venus and became first spacecraft to reach another planet.
November 18: Explorer 30 (Solar Explorer A) launched by a Scout, 11:48 p.m., EST, Wallops Flight Facility (WFF), VA.
November 26: Asterix 1 Launch (France's 1st Satellite). First satellite to be launched by a nation other than the US and the USSR with the use of its own launch vehicle (Diamant A from Hammaguir, Algeria).
November 29: Explorer 31, a small ionospheric observatory, was launched by Thor-Agena B from Vandenberg AFB, CA, 11:48 p.m., EST.

45 Years Ago - 1970
November 9: OFO 1 (Orbiting Frog Otolith) launched by a Scout. 1:00 a.m., EST, Wallops Flight Facility (WFF).
November 10: Luna 17 launched by a Proton K rocket from Baikonur. It landed on the moon 7 days later in the Sea of Rains. The first Moon rover, Lunokhod 1, was then deployed and remote-controlled by a 5-man team from Earth. The rover traveled over the lunar surface for 11 months, transmitted photos and analyzed soil samples.
November 25: First M2-F2 powered flight, William H. Dana pilot, Dryden Flight Research Facility (DFRF), CA.
November 30: OAO-B failed to orbit, launched by Atlas-Centaur, 5:40 p.m., EST, Cape Canaveral, Fla.
40 Years Ago - 1975
November 19: Explorer 55 launched (AE-E) by a Delta, 9:06 p.m., EST, Cape Canaveral, Fla.

November 26: China 4, a military photo surveillance satellite, was the People’s Republic’s first retrievable satellite. It was launched on a CZ-2 (Long March) from Shuang Cheng-Tzu, Peoples Republic of China.

November 26: Last flight of the lifting body program, Thomas C. McMurtry, pilot, Dryden Flight Research Facility (DFRF).

35 Years Ago – 1980
November 12: Voyager 1, Saturn Flyby 78,000 miles above the cloud tops. Voyager sent back spectacular photos and discovered new moons.

November 16: SBS-I launched, 5:49 p.m., EST, Cape Canaveral, Fla.

30 Years Ago - 1985

25 Years Ago - 1990
November 15: STS-38 (Space Shuttle Atlantis), launched from KSC, 6:48 p.m., EST. Crew: Richard O. Covey, Frank L. Culbertson, Jr., Charles "Sam" Gemar, Robert C. Springer and Carl J. Meade. Crew launched a classified Department of Defense payload. Landed at KSC, November 20, 4:43 p.m., EST. Mission Duration: 117 hours, and 54 minutes.

20 Years Ago – 1995
November 4: RADARSAT-1 launched by a Delta 2 from Vandenberg at 6:22 a.m. PST.

November 12: STS-74 (Space Shuttle Atlantis), launched from KSC, 7:30 a.m., EST. Crew: Kenneth D. Cameron, James D. Halsell, Jerry L. Ross, William S. McArthur, Jr. and Chris A. Hadfield. Second Shuttle-Mir flight. Brought the Russian Docking Module. Landed at KSC, November 20 at 12:01 p.m., EST. Mission Duration: 8 days, 4 hours, and 31 minutes.

15 Years Ago – 2000
November 2: The International Space Station became occupied with the arrival of the Expedition One crew consisting of William M. Shepherd (commander), Yuri Gidzenko, and Sergei K.Krikalev aboard the Soyuz TM-31 launched on Oct.31 from Baikonur. The Expedition One mission lasted 136 days and the ISS has been continuously operated by successive crews since then.

November 21: EO 1 (Earth Observing mission 1), the first spacecraft in the American New Millennium Program (NMP) was launched by a Delta 2 rocket from Vandenberg AFB at 13:24 UTC.

November 30: STS 97 (Space Shuttle Endeavour), launched from KSC, 10:06 p.m. EST. Crew: Brent Jett, Michael J. Bloomfield, Joseph R. I. Tanner, Carlos Noriega, and Marc Garneau (Canada). ISS Assembly Flight 4A. Landed at KSC, Dec. 11, 2000 at 6:04 p.m. EST. Mission Duration: 10 days, and 19 hours, and 57 minutes.

10 Years Ago – 2005
November 9: Venus Express, an ESA planetary mission was launched by a Soyuz-Fregat rocket from Baikonur, designed to monitor the atmosphere of Venus.
5 Years Ago – 2010
November 4: NASA's EPOXI spacecraft successfully flew past comet Hartley 2, providing unprecedented images and giving scientists new information about the comet's volume and material erupting from its surface.

November 14: SkyTerra 1, a commercial communication satellite, was launched from Baikonur at 17:29 UTC by a Proton rocket with a Breeze M upper stage. SkyTerra 1 will join traditional terrestrial cell networks to shape a fourth-generation, or 4G, wireless system designed to reach nearly every American by the end of 2016. It carries a 22-m diameter L-band antenna, the largest commercial antenna reflector ever built.

November 20: FAST 1, also known as USA 222, was launched from Kodiak at 01:25 UTC by a Minotaur 4 rocket. Built by students at the University of Texas, Austin, FAST 1 is also called FASTRAC (Formation Autonomy Spacecraft with Thrust, Relnav, Attitude and Crosslink) and consists of two satellites launched together for formation flying and testing of a GPS navigation experiment. FASTSAT-HSV01 (Fast Affordable Science and Technology Satellite), a NASA microsatellite also known as USA 220, was launched from Kodiak on the same launch vehicle as FAST 1 to test a Threat Detection System and a Miniature Star Tracker for the US Air Force Research Laboratory. STPSAT 2, also known as USA 217, a technology demonstration for the USAF Space Test Program, was launched with the two payloads described above. Finally, O/OREOS (Organism/Organic Exposure to Orbital Stresses), a NASA nanosatellite also known as USA 219, carried a three unit CubeSat carrying two biological experiments.