FORECAST OF UPCOMING ANNIVERSARIES -- DECEMBER 2013

110 Years Ago - 1903

December 17: Wright flyer makes first flight at Kitty Hawk, NC.

55 Years Ago -- 1958

December 3: The Jet Propulsion Laboratory (JPL) in Pasadena, Calif. is transferred from the U.S. Army to NASA.

December 6: Pioneer 3 launched on Juno 2 rocket from Cape Canaveral at 05:45:12 UTC.

December 13: Bioflight 1 – Jupiter AM-13 - First capsule containing living cargo, squirrel monkey, Gordo. Although not a NASA mission, data was utilized in Project Mercury planning.

December 18: Project SCORE (Signal Communications by Orbiting RElay) the first active communications satellite, launched by an Atlas at 6:02 p.m., EST, from Cape Canaveral, Fla. It broadcast the first voice from space -- President Eisenhower's recorded Christmas message.

50 Years Ago -- 1963

December 3: First flight of M-2 lifting body, Col. Charles "Chuck" Yeager at controls, DFRF, CA.

December 10: Dyna Soar (X-20) cancelled by Secretary of Defense Robert S. McNamara announcement, Washington, D.C.

December 19: Explorer 19 launched by Scout at 10:49 a.m., PST, Cape Canaveral, Fla.

December 21: Tiros 8 launched by Thor, 4:30 a.m., EST, Cape Canaveral, Fla.

45 Years Ago - 1968

December 3: An international agreement on the rescue of astronauts, the return of astronauts, and the return of objects launched into outer space, went into force.

December 5: HEOS 1 launched by Thor Delta, 1:55 p.m., EST, Cape Canaveral, Fla. First satellite produced by the ESTC for the European Space Research Organization (ESRO).

December 7: OAO 2 launched by Atlas, 3:40 a.m., EST, Cape Canaveral, Fla. First successful launch of a standard spacecraft developed by the Goddard Space Flight Center to carry astronomical instruments.

December 15: ESSA 8 launched by Thor Delta, 12:22 p.m., EST, Vandenberg AFB.

December 18: Intelsat III F-2 launched by Thor Delta, 7:32 p.m., EST, Cape Canaveral, Fla.

December 21-27:Apollo 8 launched, 7:51 a.m., EST, KSC. Astronauts Frank Borman, James A. Lovell Jr., and William A. Anders. First human departure from Earth's sphere of influence. First manned circumlunar flight. First crew assisted flight launched from Launch Complex 39A. First crew assisted spacecraft landing in darkness. First pictures of the Earth taken from the Moon. First crew assisted flight to escape Earth's gravity. First space vehicle to rocket out of lunar orbit. First audio-video communication from lunar distance. First crew assisted Saturn V launch. First crew to spend Christmas in space. First humans to see far side of the Moon.

December 23: The Apollo 8 crew uses a portable TV camera to take the first images of the full sphere of Earth as seen from space by humans.

December 24: Apollo 8 crew takes famous "Earthrise" photo. First by humans from vicinity of the moon.

40 Years Ago - 1973

December 3: Pioneer 10 passed Jupiter, 6:26 p.m., PST. First flyby past Jupiter. Obtained first close-up images of the giant planet.

December 16: AE-C (Explorer 51) launched by Delta from Cape Canaveral at 06:18 UTC.

December 18: USSR launches Soyuz 13 on a Soyuz rocket from Baikonur at 11:55 UTC. Flight test of the modified Soyuz spacecraft. Crew: Pyotr I. Klimuk; Valentin V. Lebedev.

35 Years Ago -- 1978

December 4: Pioneer Venus 1, Venus Orbit Insertion.

December 10: Navstar 4 launched by Delta F, Vandenberg AFB.

December 13: DSCS II-11 and 12 launched by Titan 3C, 7:40 p.m., EST, Cape Canaveral, Fla.

December 15: Anik B or Telesat 4 launched, 7:21 p.m., EST, Cape Canaveral, Fla.

25 Years Ago -- 1988

December 2: STS-27 (Space Shuttle *Atlantis*) launched, 9:30 a.m., EST, KSC. Deployed DoD payload from cargo bay. Crew: Robert L. Gibson, Guy S. Gardner, Richard M. Mullane, Jerry L. Ross, and William B. Shepherd. Landed December 6 at Edwards AFB, CA, 3:36 p.m. PST. Mission Duration: 4 days, 9 hrs, and 6 minutes.

20 Years Ago - 1993

December 2: STS-61 (Space Shuttle *Endeavour*) launched, 4:27 a.m. EST, KSC. First servicing of Hubble Space Telescope (HST). Crew: Richard O. Covey, Kenneth D. Bowersox, F. Story Musgrave, Kathryn C. Thornton, Claude Nicollier (Switzerland), Jeffrey A. Hoffman, and Thomas D. Akers. Landed December 13, KSC, 12:26 a.m., EST. Mission Duration: 10 days, 19 hours, 58 minutes.

15 Years Ago -- 1998

December 4: STS-88 (Space Shuttle *Endeavour*) launched, 3:35 a.m. EST, KSC. Crew: Robert D. Cabana, Frederick W. Sturckow, Nancy J. Currie, Jerry L. Ross, James H. Newman, and Sergei K. Krikalev (Russia). Rendezvoused with the already launched Zarya Control Module and successfully attached the Unity Node, providing the foundation for future station components. Landed December 15, KSC at 10:53 p.m. EST. Mission Duration: 11 days, 19 hours, 18 minutes.

December 11: Mars Climate Orbiter launched on a Delta 2 from Cape Canaveral at 18:45:51 UTC.

December 22: Panamsat 8B (Intelsat 6B) launched by Ariane 44L rocket from Kourou, French Guiana at 01:08 UTC.

10 Years Ago -- 2003

December 17: Ultra-High Frequency Follow-on F11 satellite or UFO 11, also known as USA 174 ("UFO" has been identified as the acronym for Uhf Follow-On.) -- First U. S. military payload to be launched by a Russian-made rocket engine. (Russian RD-180 engine) lifting an Atlas 3B launch vehicle in space from Cape Canaveral at 9:30 EST.

December 19: Beagle 2, was an ESA Mars Lander that was released from the orbiting Mars Express. It was to soft-land on Mars December 25, 2003 but no communication was ever established and it was declared lost.

5 Years Ago -- 2008

December 25: Three GLONASS-M spacecraft -- Cosmos 2447 (Glonass 727), Cosmos 2448 (Glonass 728), and Cosmos 2449 (Glonass 729) were added to the Russian global navigation satellite system. They were launched by a Proton-M rocket with a Block DM upper stage from Baikonur at 10:43 UT.

December 30: NASA releases the Spacecraft Crew Survival Integrated Investigation Team Report, titled "*Columbia* Crew Survival Investigation Report", a comprehensive study of crew safety equipment and procedures used during the space shuttle Columbia accident with recommendations for improving the safety of all future human spaceflights.