Annex 1.

NASA Space Chronology

(Excerpt for 2007 – 2008)

http://history.nasa.gov/annivforecast.htm

(Update 21 March 2006)
CHRONOLOGY – JANUARY 2007

45 YEARS AGO – 1962
Jan 3: NASA announced name of two-manned spacecraft, "Gemini."
Jan 13: Discoverer 37 launched, 4:41 p.m., EST, WSMC.
Jan 24: Composite 1 (Navy), GREB IV, Lofti III, Injun II, and Surcal launched, 4:30 a.m., EST, ESMC.
Jan 26: Ranger 3 launched, 3:30 p.m., EST, ESMC, WSMC.

40 YEARS AGO – 1967
Jan 11: Intelsat II F-2 launched, 5:55 a.m., EST, ESMC. Also known as Pacific 1.
Jan 26: ESSA 4 launched, 12:32 p.m., EST, WSMC.
Jan 27: Apollo I/AS 204 fire, 6:31 p.m., EST, ESMC, Astronauts Grissom, White, and Chaffee die in capsule fire.
Jan 27: Space Law Treaty signed, Washington, D.C.

35 YEARS AGO – 1972
Jan 5: President Nixon announced decision that U.S. will build a reusable space shuttle, San Clemente, CA.
Jan 22: Intelsat IV F-4 launched, 7:12 p.m., EST, ESMC.
Jan 31: HEOS A-2 launched, 12:20 p.m., EST, WSMC.

30 YEARS AGO – 1977
Jan 27: NATO III-B launched, 7:49 p.m., EST, ESMC.

25 YEARS AGO – 1982
Jan 15: RCA-IV launched, 8:54 p.m., EST, ESMC.

CHRONOLOGY – FEBRUARY 2007

45 YEARS AGO – 1962
Feb 8: Tiros 3 launched, 7:43 a.m., EST, ESMC.
Feb 20: Mercury Atlas 6 (MA-6), Friendship 7 launched, with astronaut John Glenn, 9:47:39 a.m., first American to orbit the earth, ESMC.
Feb 27: Discoverer 38 launched, WSMC.

40 YEARS AGO – 1967
Feb 4: Lunar Orbiter 3 launched, 8:17 p.m., EST, ESMC.
Feb 8: Diamede 1 launched, Hammaquir, Algeria, French satellite.
Feb. 15: Diamede 2 launched, Hammaquir, Algeria, French satellite.
35 YEARS AGO – 1972
Feb 14: USSR launches Luna 20 which soft lands on the Moon four days later. A rotary-percussion drill retrieved samples from the surface which were returned to Earth by capsule on February 25.

25 YEARS AGO – 1982
Feb 25: Westar IV launched, 7:04 p.m., EST, ESMC.

CHRONOLOGY – MARCH 2007

95 Years Ago -- 1912
Mar. 23: Dr. Wernher von Braun born, Wirsitz, Germany (now Part of Poland).

70 Years Ago -- 1937
Mar. 6: Valentina Nikolayevna Tereshkova born, Maslennikovo, Yaroslavl Region, USSR.

60 Years Ago -- 1947
Mar. 7: First photograph taken from space from a V2 rocket 100 miles above White Sands, New Mexico.

55 Years Ago – 1952
Mar. 22: Colliers magazine published its first space symposium under title: “Man Will Conquer Space Soon.”

45 Years Ago – 1962
Mar. 7: OSO 1 launched, 11:06 a.m., EST, ESMC.
Mar. 16: Cosmos 1 launched, 1200 UT, Kapustin Yar, USSR.

40 Years Ago – 1967
Mar. 8: OSO 3 launched, 11:12 a.m., EST, ESMC.
Mar. 22: Cosmos 150 launched, 1243 UT, Plesetsk, USSR.
Mar. 23: Intelsat II F-3 launched, 8:30 p.m., EST, ESMC.

35 Years Ago – 1972
Mar. 2: Pioneer 10 launched, 8:49 p.m., EST, ESMC.
Mar. 11: TD 1 (ESRO) launched, 8:55 p.m., EST, WSMC.
Mar. 27: Venus 8 launched, 0415 UT, Baikonur, USSR.

30 Years Ago – 1977
Mar. 10: Uranus rings discovered.
Mar. 10: Palapa 2 launched, 6:16 p.m., EST, ESMC.

25 Years Ago – 1982
Mar. 4: Intelsat V F-4 launched, 7:24 p.m., EST, ESMC.
Mar. 22: STS 3 (Space Shuttle Columbia) launched, 11:00 a.m., EST, KSC. Astronauts Jack R. Lousma and C. Gordon Fullerton. Continued testing of Space Shuttle systems for qualification for operational flights. Landed March 30, 11:05 a.m., EST, White Sands, N.M. Mission duration: 8 days, 4 minutes.

CHRONOLOGY – APRIL 2007

140 Years Ago -- 1867
Apr. 16: Wilbur Wright born, Millville, IN.

60 Years Ago -- 1947

45 Years Ago – 1962
Apr. 24: Cosmos 4 launched, 0405 UT, Kapustin Yar, USSR.
Apr. 24: First transmission of TV pictures in space, via Echo 1.
Apr. 25: Saturn 2 (Project High Water) launched, 9:00 a.m., EST, ESMC.
Apr. 26: Cosmos 4 launched, 1005 UT, Baikonur, USSR.
Apr. 26: Launch of Ariel 1, the first international satellite, a joint project of NASA and the United Kingdom.

40 Years Ago – 1967
Apr. 5: ATS 2 launched, 10:23 p.m., EST, ESMC.
Apr. 17: Surveyor 3 launched, 2:39 a.m., EST, ESMC, landed on moon 7:04 a.m., EST, April 19.
Apr. 20: ESSA 5 launched, 6:21 a.m., EST, WSMC.
Apr. 26: San Marco 2 launched, 5:06 a.m., EST, SMR.

35 Years Ago – 1972
Apr. 4: Molniya I 20/SRET 1 launched, 2039 UT, Baikonur, USSR.
Apr. 16: Apollo 16 launched, 12:54 p.m., EST, KSC with astronauts Young, Mattingly and Duke.

25 Years Ago – 1982
Apr. 10: Insat 1A (India) launched, 1:48 a.m., ESMC.
CHRONOLOGY – MAY 2007

80 Years Ago -- 1927
May 20-21: Charles A. Lindbergh made the first solo nonstop flight across the Atlantic Ocean. Lucky Lindy's single-seat, single engine Ryan monoplane named the Spirit of St. Louis began the flight from Roosevelt Field, NY and landed at Le Bourget Air Field, outside of Paris, France. This singular event was a major factor in awakening the nation to the full potential of aviation.

70 Years Ago -- 1937
May: Peenemunde opened under the Command of, then, Captain Dr. Walter Dornherger.

60 Years Ago -- 1947
May 29: In what may be the sole example of the US firing a missile at Mexico in peacetime, happened when a modified V-2 was launched by the United States from the White Sands Proving Grounds, NM. and flew in the wrong direction! It landed 1-1/2 miles south of Juarez, Mexico!

55 Years Ago -- 1952
May 16: The International Geophysical Year (IGY) was created.
May 22: Two monkeys and two mice were carried 36 miles aloft by an Aerobee sounding rocket. The live cargo was recovered unharmed. White Sands Proving Grounds, NM.

50 Years Ago -- 1957
May 31: Army’s Jupiter IRBM was successfully fired 1,500 miles downrange, ESMC.

45 Years Ago -- 1962
May 24: Mercury Atlas 7/Aurora 7 (MA-7) M. Scott Carpenter astronaut pilot was launched at 8:45 a.m., EDT, for three orbits of the Earth, ESMC.

40 Years Ago -- 1967
May 4: Lunar Orbiter 4 was launched, 6:25 p.m., EDT, ESMC.
May 5: Ariel 3 launched, 12:00 p.m., WSMC.
May 24: Explorer 34 (IMP-F) launched, 10:06 a.m. EDT, WSMC.
May 29: ESRO II-A launched, failed to orbit, 10:06 p.m., EDT, WSMC.

35 Years Ago -- 1972
May 24: U.S. President Nixon and USSR Premier Kosygin signed an agreement for cooperation in the exploration of outer space for peaceful purposes and included the docking in space of US/USSR spacecraft in 1975. Moscow, USSR.

25 Years Ago -- 1982
May 11: First supersonic flight of the HIMAT aircraft, DFRF, CA.
CHRONOLOGY – JUNE 2007

90 Years Ago – 1917
Jun. 28: Langley Research Center, authorized by NACA as an experimental field, Hampton, VA.

65 Years Ago – 1942
Jun. 13: The first attempted launch of an A-4 (V-2) took place at Peenemunde. The rocket rose about .8 miles then crashed.

55 Years Ago -- 1952
Jun. 18: H. Julian Allen, NACA-Ames scientist, conceived the blunt nose concept for reentry vehicles, which was later used in ICBM's and Mercury, Gemini, and Apollo spacecraft.

50 Years Ago -- 1957
Jun. 11: Atlas ICBM No. 1 exploded at two miles altitude, ESMC.

45 Years Ago -- 1962
Jun 19: Tiros 5 (meteorological satellite) launched 8:19 a.m., EDT, ESMC.
Jun. 27: The X-15 unofficial world speed record of 4,104 mph was set with pilot Joseph A. Walker at the controls, DFRF, CA.

40 Years Ago -- 1967
Jun. 12: Venera 4 launched, 0238 UT, Baikonur, USSR.
Jun. 14: Mariner 5 (Venus flyby) was launched. 2:01 a.m. EDT, ESMC.

30 Years Ago -- 1977
Jun. 16: Dr. Wernher Von Braun died, Alexandria, VA.
Jun. 16: GOES-2 launched, 6:51 a.m., EDT, ESMC.

25 Years Ago -- 1982
Jun. 8: Westar 5 launched, 8:24 pm, EDT, ESMC.
Jun. 27: STS-4 (Space Shuttle Columbia) launched, 11:00 a.m., EDT from KSC. Astronauts: Ken Mattingly and Hank Hartsfield. Final Space Transportation System research and development flight. Landed July 4, 12:09 p.m., EDT, EAFB, CA. Mission duration 7 days, 1 hour, 9 minutes.
**CHRONOLOGY – JULY 2007**

50 Years Ago - 1957
Jul. 1: The beginning of the International Geophysical Year.

45 Years Ago - 1962
Jul. 10: Telstar 1 launched, ESMC, 4:35 a.m., EDT. Sends first live TV broadcast between the U.S. and Europe.
Jul. 22: Mariner 1 launched, ESMC, 5:21 a.m., EDT. Planned Venus flyby mission, spacecraft and final rocket stage blew up when accelerated to escape velocity.

40 Years Ago - 1967
Jul. 14: Surveyor 4 launched toward Moon, ESMC, 7:53 a.m., EDT. July 17 radio contact was lost 2-1/2 minutes before lunar touchdown when the signal was abruptly lost. Impacted in Sinus Medii.
Jul. 19: Explorer 35 launched, ESMC, 10:19 a.m., EDT.
Jul. 28: Orbiting Geophysical Observatory (OGO)- 4 launched, WSMC, 12:21 GMT.

35 Years Ago - 1972
Jul. 23: Landsat 1 launched. ESMC, 2:06 p.m., EDT.
Aug. 21: Orbiting Astronomical Observatory (OAO) - 3 named Copernicus, launched ESMC, 6:28 a.m., EDT.

25 Years Ago - 1982
Jul. 4: STS-4 landed at EAFB, CA., 12:09 pm., EDT. Astronauts Ken Mattingly and Hank Hartsfield. President Reagan attended the landing along with a half-million other tourists. In a speech he stated: "... beginning with the next flight Columbia and her sister ships will be fully operational ..."
Jul. 16: Landsat 4 launched, WSMC, 1:59 a.m., EDT.

**CHRONOLOGY – AUGUST 2007**

45 Years Ago - 1962
Aug. 11-12: Vostok 3 and Vostok 4 (Nikolayev and Popovich) launched. 0824 UT and 0755 UT, Baikonur. First simultaneous flight of two spacecraft.
Aug. 31: Communications Satellite Act signed by President Kennedy, Washington, DC

40 Years Ago - 1967
Aug. 1: Lunar Orbiter 5 launched. ESMC, 6:33 p.m., EDT.
35 Years Ago - 1972
Jul. 23: Landsat 1 launched. ESMC, 2:06 p.m., EDT.
Aug. 21: Orbiting Astronomical Observatory (OAO) - 3 named Copernicus, launched ESMC, 6:28 a.m., EDT.

30 Years Ago - 1977
Aug. 12: HEAO I launched, ESMC, 2:39 a.m., EDT.
Aug. 20: Voyager 2 launched, ESMC, 10:29 a.m., EDT.

CHRONOLOGY – SEPTEMBER 2007

150 Years Ago - 1857
Sep. 5: Konstantin E. Tsiolkovski born in village of Izhevsk, Spassk County. Ryazan Province. Research done in Kaluga, USSR.

60 Years Ago - 1947
Sep. 6: V2 fired from deck of USS Midway, near Bermuda.
Sep. 25: First launch Aerobee, White Sands, NM.

45 Years Ago – 1962
Sep. 18: Tiros 6 launched, 4:53 a.m., EDT, ESMC.
Sep. 28: Alouette 1 launched, 2:05 a.m., EDT, WSMC.

40 Years Ago - 1967
Sep. 7: Biosatellite 2 launched, 6:04 p.m., EDT, ESMC.
Sep. 8: Surveyor 5 launched, 13:47 a.m., EDT, ESMC.

35 Years Ago – 1972
Sep. 22: Explorer 47 launched, 9:20 p.m., EDT, ESMC.

30 Years Ago – 1977
Sep. 5: Voyager 1 launched at 12:56 UTC from Cape Canaveral on a Titan IIIE-Centaur launch vehicle.

CHRONOLOGY – OCTOBER 2007

125 Years Ago – 1882
65 Years Ago - 1942
Oct. 3: First successful V2 flight, Peenemunde, Germany

60 Years Ago - 1947

50 Years Ago - 1957
Oct. 4: Sputnik 1 launched, first earth satellite, 184 pounds, 22.8 inches in diameter, 1912 UT, Baikonur, USSR.
Oct. 11: First successful flight of Thor, ESMC.

45 Years Ago – 1962
Oct. 2: Explorer 14 launched, 6:11 p.m., EDT, ESMC.
Oct. 3: Mercury/Atlas 8, Sigma 7 launched, astronaut Wally Schirra, 8:15 a.m., EDT, ESMC.
Oct. 18: Ranger 5 launched, 11:59 a.m., EST, ESMC.
Oct. 22: Explorer 15 launched, 7:15 p.m., EDT, ESMC.

40 Years Ago - 1967
Oct. 3: Fastest X-15 flight, 4,520 mph, mach 6.7, pilot William J. Knight, DFRF, CA.
Oct. 9: Lunar Orbiter 3 intentionally crashed on moon.
Oct. 11: Lunar Orbiter 2 intentionally crashed on moon.
Oct. 18: Venera 4 Landing on Venus
Oct. 18: OSO 4 launched, 11:58 a.m., EDT, ESMC.

35 Years Ago – 1972
Oct. 15: NOAA 2/0scar 6 launched, 1:19 p.m., EDT, WSMC.
Oct. 27: Mariner 9 mission ended as attitude control gas exhausted.

30 Years Ago – 1977
Oct. 22: ISEE 1 & 2 launched, 19:53 a.m., EDT, ESMC.

25 Years Ago - 1982
Oct. 30: DSCS II & III launched, 2:05 a.m., EDT, ESMC. First use of Titan 34D and IUS launch vehicle and stage.

CHRONOLOGY – NOVEMBER 2007

50 Years Ago - 1957
Nov. 3: Sputnik 2 launched, carried "Laika", 0224 UT. Baikonur, USSR
45 Years Ago - 1962
Nov. 9: X-15, No. 2, piloted by John McKay crashed, DFRF, CA.
Nov. 16: SA-3 (Saturn I rocket) launched, 12:45 pm., EST, ESMC.

40 Years Ago - 1967
Nov. 5: ATS 3 launched, 6:37 p.m., EST, ESMC.
Nov. 7: Surveyor 6 launched, 2:39 a.m., EST, ESMC.
Nov. 9: Apollo 4 launched, 7:00 a.m., EST, KSC. First successful launch and flight of Saturn V launch vehicle.
Nov. 10: ESSA 6 launched, 2:53 p.m., EST, WSMC.
Nov. 15: X-15, No. 3 piloted by Major Michael J. Adams crashed, DFRF, CA.
Nov. 29: Wresat 1 launched, first Australian satellite, Woomera.

35 Years Ago - 1972
Nov. 9: Anik 1 (Telesat 1) launched, 8:14 p.m., EST, ESMC.
Nov. 16: Explorer 48 launched, 5:13 p.m., EST (Nov. 15 EST) San Marco Facility, Indian Ocean.

30 Years Ago - 1977
Nov. 23: Meteosat 1 launched, 8:35 p.m., EST, ESMC.

25 Years Ago - 1982
Nov. 11: STS-5 (Space Shuttle Columbia) launched, 7:19 a.m., EST, KSC. Astronauts: Vance D. Brand, Robert F. Overmyer, Joseph P. Allen, and William B. Lenoir. First Shuttle operational mission deployed two commercial communications satellites, ANIK C-3 for TELESAT Canada and SitS-C for Satellite Business Systems. Launched SBS 3 and Anik C 3 (Telesat 5). Landed Nov. 16, 6:33 a.m., PST, EAFB, CA.

CHRONOLOGY – DECEMBER 2007

60 Years Ago – 1947

50 Years Ago - 1957
Dec. 6: Vanguard (TV-3) failed to launch, exploded on the launch pad, 11:45 a.m., EST, ESMC.
Dec. 17: First successful firing of Atlas ICBM, ESMC.

45 Years Ago - 1962
Dec. 13: Relay 1 launched, 6:30 p.m., EST, ESMC
Dec. 14: Mariner 2 flew past Venus.
Dec. 16: Explorer 16 launched, 0:33 a.m., EST, WFF, VA

40 Years Ago - 1967
Dec. 13: Pioneer 8/TTS-1 launched, 9:08 a.m., EST, ESMC.

35 Years Ago - 1972
Dec. 11: Nimbus 5 launched, 2:56 a.m., EST, WSMC.
Dec. 20: Last flight of M2-F3 program, DFRF, CA.

CHRONOLOGY – JANUARY 2008

50 Years Ago – 1958
Jan. 4:- Sputnik 1 reentered.
Jan. 17:- Polaris First launched, ESMC.
Jan. 31: Explorer 1 launched, 10:48 p.m., EST, ESMC. First US satellite.

45 Years Ago - 1963
Jan. 4: Mariner 2 ceased transmitting data.

40 Years Ago - 1968
Jan. 7: Surveyor 7 launched, 10:48 p.m., EST, ESMC. Landed on the moon January 9.

35 Years Ago - 1973
Jan. 8: Luna 21 launched, 0655 UT, Baikonur, USSR.
Jan. 16: Lunokhod 2 released from Luna 21 on moon's surface.

30 Years Ago - 1978
Jan. 6: Intelsat IV A F-3 launched, 7:15 p.m., ESMC.

25 Years Ago - 1983
Jan. 26: IRAS launched, 6:17 p.m., PST, WSMC. First Infrared Astronomical Satellite all-sky survey for objects that emit infrared radiation and provide a catalog of infrared sky maps.
CHRONOLOGY – FEBRUARY 2008

60 Years Ago – 1948
Feb. 4: First flight of Douglas D-558-II, Number 1, DFRF, CA.

55 Years Ago – 1953
Feb. 21: First powered flight of Bell X-1A.

45 Years Ago - 1963
Feb. 9: First flight of Boeing 727, Seattle, WA.
Feb. 14 - Syncom 1 launched, 12:35 a.m., EST, ESMC. First test of a communication satellite in geosynchronous orbit.

30 Years Ago – 1978
Feb. 9: FLTSATCOM 1 launched, 4:17 p.m., ESMC by Atlas-Centaur- 44. First military satellite designed for worldwide communications for military use.

25 Years Ago – 1983
Feb. 9: DoD triple launch, Atlas H, WSMC.

CHRONOLOGY – MARCH 2008

50 Years Ago - 1958
Mar. 5: Explorer 2 launched, 1:28 p.m., EST, ESMC.
Mar. 17: Vanguard 1 launched, 7:15 a.m., EST, ESMC.
Mar. 23: First underwater launch of Polaris, San Clemente, CA.
Mar. 26: Explorer 3 launched, 12:39 p.m., EST, ESMC.

45 Years Ago - 1963
Mar. 21: USSR lost contact with Mars 1 at 66 million miles from earth.
Mar. 28: Saturn/Apollo 4 launched, 3:12 p.m., EST, ESMC.

40 Years Ago - 1968
Mar. 2: Zond 4 launched, 1829 GMT, Baikonur, USSR.
Mar. 4: OGO 5 launched, 8:06 a.m., EST, ESMC.
Mar. 5: Explorer 37 launched, 1:29 p.m., EST, WFF.
Mar. 27: Yuri Gagarin died in MIG-15 crash northwest of Moscow.

30 Years Ago – 1978
Mar.2: Soyuz 28 launched with first non-Soviet, non-U.S. space explorer aboard: Vladimir Remek,(Czechoslovakia)
Mar. 5: Landsat 3 launched, 12:54 p.m., EST, WSMC. Oscar 8 piggy-back payload.
Mar. 31: Intelsat IV A F-6 launched, 6:36 p.m., EST, ESMC.

25 Years Ago – 1983
Mar. 28: NOAA 8 launched, 7:52 a.m., PST, WSMC.

**CHRONOLOGY APRIL 2008**

80 Years Ago - 1928
Apr. 11: First manned rocket car tested by Fritz von Opel at Berlin, Germany, 62 miles per hour top speed.

50 Years Ago - 1958
Apr. 25: First successful launch and inflation in space of a sphere by NACA on Nike-Cajun rocket, WFF.

45 Years Ago - 1963
Apr. 2: Explorer 17 launched, 9:00 p.m., EST, ESMC. First in NASA sounding rocket program when NASA launched 85 pound scientific payload to 208 mile altitude.
Apr. 2: Luna 4 Launch (Soviet Moon Flyby Mission)

40 Years Ago - 1968
Apr. 4: Apollo 6 launched, 7:00 a.m., EST, KSC.
Apr. 7: Luna 14 Launch (Soviet Moon Orbiter)

35 Years Ago - 1973
Apr. 3: Salyut 2 launched, 0900 GMT, Baikonur.
Apr. 5: Pioneer 11 launched, 9:11 p.m., EST, ESMC. First spacecraft to fly to Saturn. First spacecraft to take close-up pictures of Saturn. First spacecraft to provide pictures of the polar regions of Jupiter.
Apr. 19: Intercosmos Copernicus 500 launched, 1020 GMT, Kapustin Yar.
Apr. 20: Anik 2 launched, 6:47 p.m., EST, ESMC.

30 Years Ago – 1978
Apr. 26: Heat Capacity Mapping Mission (HCMM/AEM-1) launched, 5:20 a.m. , EST, WSMC.
25 Years Ago – 1983
Apr. 4: STS-6 launched, 1:30 p.m., EST, KSC. Weitz, Bobko, Peterson and Musgrave, TDRS-1 launched from STS-6 the same day.
First flight of the orbiter Challenger.
First Tracking and Data Relay Satellite successfully deployed.
First space walk of Shuttle program [D. Peterson & S. Musgrave].
First flight of the lightweight external tank and lightweight solid rocket booster casings.

**CHRONOLOGY – MAY 2008**

60 Years Ago - 1948
May 14: First Bumper Wac fired, first two stage rocket launched in western hemisphere. Rose 69.7 miles. Wac Corporal reached 79.1 miles. WSPG, NM.

50 Years Ago - 1958
May 1: Van Allen radiation belts publicly announced, based on findings of Explorer 1 (launched January 31, 1958).
May 15 - Sputnik 3 launched, orbiting geophysical observatory, 0712 GMT, Baikonur.

45 Years Ago – 1963
May 3: First drop test of Project Apollo earth landing system using a boiler plate.
May 7: Telstar 2 launched, 7:38 a.m., EDT, ESMC.
May 15: Mercury/Atlas-9 (Faith 7), astronaut Leroy Gordon Cooper launched, 8:04 a.m., EST, ESMC. First U.S. flight exceeding 24 hrs. First live television broadcast from a U.S. spacecraft.

40 Years Ago – 1968

35 Years Ago - 1973
May 14: Skylab 1 launched, 1:30 p.m., EDT, KSC.
May 25: Skylab 2 launched, astronauts Charles Conrad, Jr., Paul J. Weitz, and Dr. Joseph P. Kerwin, 9:00 a.m., EDT, ESMC.

30 Years Ago - 1978
May 20: Pioneer Venus launched, 9:13 a.m., EDT, ESMC. First spacecraft placed in orbit around Venus.

25 Years Ago - 1983
May 19: Intelsat V F-6 launched, 6:26 p.m., EDT, ESMC.
CHRONOLOGY JUNE 2008

45 Years Ago - 1963
Jun 14: Vostok 5, cosmonaut Valery F. Bykovsky launched, 1200 GMT, Baikonur.
Jun 16: Vostok 6, cosmonaut Valentina V. Tereshkova launched, 0936 GMT, first woman in space, Baikonur.
Jun 19: Tiros 7 launched, 5:50 a.m., EDT, ESMC.

35 Years Ago - 1973
Jun 10: Explorer 49 launched, 10:13 a.m., EDT, ESMC.

30 Years Ago - 1978
Jun 16: GOES-3 launched, 6:49 a.m., EDT, ESMC.
Jun 22: Jim Christy’s discovery of Pluto’s moon, Charon.
Jun 26: SeaSat-1 launched, 9:13 p.m., EDT, WSMC.

25 Years Ago - 1983
Jun 2: Venera 15 Launch (Soviet Venus Orbiter)
Jun 6: Venera 16 Launch (Soviet Venus Orbiter)
Jun 18: STS-7 launched, astronauts Crippen, Hauck, Fabian, Ride and Thagard, 7:33 a.m., EDT KSC. Shuttle launched Anik C-2, Palapa B-1, and SPAS-01, subsequently retrieved by STS-7. First U.S. woman in space: Sally Ride.
Jun 20: Dual DoD launch, 11:45 a.m., PDT, WSMC.
Jun 28: Galaxy 1 launched, 7:08 p.m., EDT, ESMC. First venture of Hughes Aircraft into the field of operational spacecraft.

CHRONOLOGY JULY 2008

65 Years Ago - 1943
Jul 7: Adolph Hitler assigned highest priority to V-2 program.

60 Years Ago - 1948
Jul 13: First Convair MX-774 test missile built under the ballistic missile program, test fired.

50 Years Ago - 1958
Jul 2: White House decision for manned spaceflight program to go to civilian space agency, Washington, D.C.
Jul 29: President Eisenhower signed the National Aeronautics and Space Act, Washington, D.C.
Jul 26: Explorer 4 launched, 11:00 a.m., EDT, ESMC.
45 Years Ago – 1963
Jul 26: Syncom 2 launched, 10:33 a.m., EDT, ESMC. First operational communications satellite in geosynchronous orbit.

40 Years Ago - 1968
Jul 4: Explorer 38 launched, 1:26:50 p.m., EDT, WSMC.

35 Years Ago - 1973
Jul 21: Mars 4 launched, 1931 UT, Baikonur, USSR.
Jul 25: Mars 5 launched, 1856 UT, Baikonur, USSR.

30 Years Ago - 1978
Jul 14: GEOS 2 launched, 6:43 a.m., EDT, ESMC.
Aug 8: Pioneer Venus 2 launched, 3:33 a.m., EDT, ESMC.

25 Years Ago - 1983
Jul 14: Navstar 8 launched, WSMC.
Jul 28: Telstar 3A launched, 6:49 p.m., EDT, ESMC. First Telstar owned by AT&T to be used as an operational spacecraft.

CHRONOLOGY AUGUST 2008

75 Years Ago - 1933
Aug 17: First Russian liquid fueled rocket successfully fired, weight: 44 pounds, Russia.

65 Years Ago - 1943

55 Years Ago - 1953
Aug 3: Dr. S. Fred Singer unveiled his proposal for Project MOUSE (Minimum Orbital Unmanned Satellite Experiment) at the Fourth International Congress on Astronautics, Zurich, Switzerland.
Aug 20 - Redstone Number 1 launched from Cape Canaveral, 9:35 a.m., EST.

50 Years Ago - 1958
Aug 2: First full-powered flight of Atlas ICBM using sustainer and booster engine, ESMC.
Aug 7: First launch of Bomarc interceptor missile, ESMC.
Aug 24: Explorer 5 launched, 2:17 a.m., EDT, ESMC. Orbit not achieved because of collision of parts of booster and satellite.
45 Years Ago – 1963
Aug 1: Mariner 2 completed first orbit of the sun.
Aug 16: First air tow of a lifting body, M2-F1, Milton 0. Thompson, Dryden Flight Research Facility, CA.
Aug 22: Highest X-15 flight (unofficial), 354,200 feet (67 + miles), Joseph A. Walker, pilot, DFRF.

40 Years Ago - 1968
Aug 8: Explorer 39/40 launched, 4:12 p.m., EDT, WSMC.
Aug 10: ATS 4 launched, 6:33:02 p.m., EDT, ESMC.
Aug 16: ESSA 7 launched, 7:24 a.m., EDT, WSMC.

35 Years Ago - 1973
Aug 1: First X-24B glide flight, John A. Manke pilot, DFRF.
Aug 5: Mars 6 launched, 1746 UT, Baikonur, USSR.
Aug 9: Mars 7 launched, 1701 UT, Baikonur, USSR.
Aug 23: Intelsat IV F-7 launched, 6:57 p.m., EDT, ESMC.

30 Years Ago - 1978
Aug 12: ISEE 3 launched, 11:12 a.m., EDT, ESMC.

25 Years Ago - 1983

CHRONOLOGY – SEPTEMBER 2008

50 Years Ago - 1958
Sep 17: NASA-ARPA Manned Satellite Panel established.
Sep 30: Last day of NACA, Washington, D.C.

45 Years Ago - 1963
Sep 18: Asset 1 flight (shuttle precursor), to altitude of 35 miles, ESMC.
Sep 28: Transit V-B launched, first all-nuclear spacecraft, USN, WSMC.

40 Years Ago - 1968
Sep 5: Zond 5 (Soviet Circumlunar Flight) launched from Baikonur, USSR, 2136 UT.
35 Years Ago – 1973
Sep 25: Skylab with astronauts Bean, Garriott, and Lousma, splashdown in Pacific Ocean, recovery ship USS New Orleans, 6:20 p.m., EDT.
Sep 26: Concorde 02 flew from Dulles International Airport, Washington, D.C. to Orly Field, Paris France, in 3 hours and 33 minutes.

25 Years Ago - 1983
Sep 8: RCA-Satcom 7 launched, 6:52 p.m., EDT, ESMC.
Sep 22: Galaxy 2 launched, 6:16 p.m., EDT, ESMC.

**CHRONOLOGY – OCTOBER 2008**

50 Years Ago - 1958
Oct 1: First day of NASA, Washington, D.C.
Oct 4: Vandenberg AFB, CA dedicated.
Oct 7: Project Mercury formally organized, Washington, D.C.
Oct 11: Pioneer 1, attempted lunar probe, failed, reached 70,700 miles altitude, first NASA launch, ESMC, 4:42 a.m., EST. First observations of Earth’s and interplanetary magnetic field.

45 Years Ago - 1963
Oct 16: Vela 1 and 2 (USAF & AEC sponsored), first nuclear explosion detection satellites, ESMC.

40 Years Ago - 1968
Oct 11-22: Apollo 7, Astronauts Schirra, Eisele, Cunningham, first manned flight of Apollo Project, 11:02 a.m., EDT, KSC.
First test of Apollo Command/Service Module in Earth orbit operated by astronauts in flight.
First three member crew mission in the Apollo lunar landing program.
First flight with full crew support equipment.
First launch from Launch Complex 34.
First Saturn IB crew assisted flight.
First CSM rendezvous & station-keeping maneuvers.
First extensive checkout of CSM systems during mission.
First flight of Block II Apollo spacecraft.
First eight Service Propulsion System firings.
First CM landing in ocean.
First live network TV broadcast from space during a crew assisted flight.
First astronauts to experience head colds during mission.
First flight of the Apollo space suits.
First crew to drink coffee in space.
Oct 23: First HL-10 powered flight, Jerauld R. Gentry, DFRF, CA.
Oct 24: Last X-15 flight (No. 199), William H. Dana, DFRF, CA.

30 Years Ago - 1978
Oct 13: Tiros N launched, 7:23 a.m., EDT, WSMC.
Oct 24: Nimbus 7/Cameo launched, 4:14 a.m., EDT, WSMC.

25 Years Ago – 1983
Oct 10: Venera 15 (Soviet probe), Venus Orbit Insertion

CHRONOLOGY – NOVEMBER 2008

85 Years Ago – 1923
Nov.18: Alan Shepard born, East Dery, NH.

50 Years Ago -- 1958
Nov. 8: Pioneer 2 (second US-IGY space probe) launched. Failed. Reached altitude of 963 miles, 2:30 a.m., EST, ESMC.
Nov. 26: Project Mercury designation officially approved.

45 Years Ago -- 1963
Nov. 11: First off-the-pad abort test of the Apollo launch escape system successfully tested at White Sands Missile Range, NM. – Apollo Boilerplate #6.
Nov. 26: Explorer 18 – launch of first interplanetary monitoring platform to observe interplanetary space at 02:24:00 UTC, ESMC.
Nov. 27: First successful use of liquid hydrogen as a rocket fuel in space. Atlas-Centaur stage entered orbit, after launch from ESMC, 2:03 p.m., EST.
Nov. 29: Cape Canaveral renamed Cape Kennedy by Executive Order Number 11129 signed by President Lyndon Johnson.

40 Years Ago – 1968
Nov. 3: Mariner 10 Launch (Venus & Mercury Flyby Mission)
Nov. 8: Pioneer 9/TETR 2 launched, 4:46 a.m., EST, ESMC.
Nov.10: Zond 6 Launch (Soviet Circumlunar Flight)

35 Years Ago – 1973
Nov. 1: First flight of supercritical wing on F-111, DFRF, CA.
Nov. 3: Mariner 10 -- First spacecraft to explore the planet Mercury. First spacecraft to use gravitational pull of one planet [Venus] to reach another [Mercury].
Nov. 6: NOAA 3 launched, 12:02 p.m., EST, WSMC.
Nov. 16: Skylab 4 launched, 9:01 p.m., EST, KSC. Last manned flight of Skylab program. Astronauts Gerald Carr, Edward Gibson, and William Pogue.
30 Years Ago -- 1978
Nov. 13: HEAO 2 launched, 12:24 a.m., EST, ESMC.
Nov. 18: NATO III C launched, 7:46 p.m., EST, ESMC.

25 Years Ago -- 1983
Nov. 28: STS 9 (Spacelab 1) launched, 11:00 a.m., EST, KSC. Fifth flight of space shuttle Columbia. Astronauts John Young, Brewster Shaw, Owen Garriott, Robert Parker, Byron Lichtenberg, and Ulf Merbold.

CHRONOLOGY – DECEMBER 2008

105 Years Ago – 1903
Dec. 17: Wright flyer makes first flight at Kitty Hawk, NC.

50 Years Ago -- 1958
Dec.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.
Dec. 18: Project Score launched, first message broadcast from space, voice of President Eisenhower, 6:02 a.m., ESMC.

45 Years Ago -- 1963
Dec. 3: First flight of M-2 lifting body, Col. Yeager at controls, DFRF, CA.
Dec. 19: Explorer 19 launched at 10:49 a.m., PST, C.
Dec. 21: Tiros 8 launched, 4:30 a.m., EST, ESMC.

40 Years Ago – 1968
Dec. 5: HEOS 1 launched, 1:55 p.m., EST, ESMC. First satellite produced by the ESTC for the European Space Research Organization [ESRO].
Dec. 7: OAO 2 launched, 3:40 a.m., EST, ESMC.
Dec. 15: ESSA 8 launched, 12:22 p.m., EST, WSMC.
Dec. 18: Intelsat III F-2 launched, 7:32 p.m., EST, ESMC.
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.

35 Years Ago – 1973
Dec. 3: Pioneer 10 passed Jupiter, 6:26 p.m., PST.

25 Years Ago -- 1978
Dec. 2: STS 27 *Atlantis* launched, 9:30 a.m., EST, KSC. Launched DoD payload from cargo bay. Astronauts "Hoot" Gibson, Guy Gardner, Mike Mullane, Jerry Ross, and Bill Shepherd. Landed at Edwards AFB, CA Dec 6. Mission duration 4 days, 9 hrs, and 6 minutes.
Dec. 4: Pioneer Venus 1, Venus Orbit Insertion.
Dec. 10: Navstar 4 launched, WSMC.
Dec. 13: DSCS II-11 and 12 launched, 7:40 p.m., EST, ESMC.
Dec. 15: nik 4 launched, 7:21 p.m., EST, ESMC.