

Review

NASA and the Conquest of Cosmic Space by Man

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Abstract: The man has dreamed of flying ever since he started to go and he first looked up to heaven. But the desire to conquer the cosmic space appeared obviously much later when the technologies developed to a level sufficient to allow the launch of space. The purpose of man on this earth in his very short life is not just to eat, drink, have fun and try to make wealth and reproduce. Obviously, the great man as he is today must also have more noble purposes, dream, but try to fulfill great ideals that bring him slowly but surely (step by step) the man supremacy into the universe. NASA's vision and mission. The vision of NASA is to improve life here, expand life there to find life beyond. His mission is to understand and protect the mother planet, explore the universe, seek life and inspire the next generation of explorers.

Keywords: NASA, Neil Armstrong, Man, Space, Cosmic Space, Universe, Mars

Introduction

The man has dreamed of flying ever since he started to go and he first looked up to heaven. But the desire to conquer the cosmic space appeared obviously much later when the technologies developed to a level sufficient to allow the launch of space. The purpose of man on this earth in his very short life is not just to eat, drink, have fun and try to make wealth and reproduce. Obviously, the great man as he is today must also have more noble purposes, dream, but try to fulfill great ideals that bring him slowly but surely (step by step) the man supremacy into the universe.

We present the list of the most important moments in the race to conquer the space, marked 58 years ago by the first flight of a man in space - cosmonaut Yuri Gagarin, on April 12, 1961.

October 1957: The launch of the first artificial satellite Sputnik by the USSR.

November 1957: The Laika puppy becomes the first living creature in space, aboard the Sputnik 2 capsule.

October 1958: Establishment of the National Space Agency (NASA), the National Aeronautics and Space Administration.

October 1960: 126 dead in an explosion on Kazakhstan's Baikonur cosmodrome.

April 1961: First flight in space with human crew aboard. Soviet cosmonaut Yuri Gagarin, aboard the Vostok 1 capsule, rotate around the Earth on an orbital flight that lasted an hour and 48 min.

May 1961: US President John F. Kennedy launches the Apollo program, which provided for the transport of

the first man on the Moon before the end of that decade. On this occasion, American Alan Shepard made a 15-minute flight aboard the Mercury Space Vehicle.

February 1962: The first American orbital flight around the Earth, conducted by John Glenn.

August 1962: the launch of a US space probe to Venus. In November, the Soviets launched a probe to Mars.

June 1963: Valentina Tereškova (USSR) becomes the first woman to enter space.

March 1965: The space flight of Soviet cosmonaut Alexis Leonov, followed in June by American Edward White.

December 1965: The first "meeting" in space between two American Gemini capsules. The United States is now starting to advance the USSR.

January 1967: The death of the Apollo crew during a Cape Canaveral base test.

April 1967: The Soyuz-1 capsule collapses on the ground with cosmonaut Vladimir Komarov on board.

July 1969: The Americans Neil Armstrong and Edwin Aldrin arrive on the Moon, Armstrong becoming the first man to step on the moon surface, occasionally speaking "a small step for man but a huge one for mankind."

April 1971: Launch of Salyut, the first Soviet orbital station.

June 1971: Three Soviet cosmonauts die due to the depression of their descent module.

May 1975: Establishment of the European Space Agency (ESA).

July 1975: First US-Soviet space meeting.

December 1979: the launch of the Ariane missile, Europe becoming a space power.



Fig. 1: Conquest of cosmic space

October 1980: Space record established by two Soviet cosmonauts (nearly 185 days).

April 1981: Columbia's first US Air Force flight, followed by Challenger, Discovery, Atlantis and Endeavor (Fig. 1).

June 1982: Jean-Loup Chrétien, the first French astronaut.

January 1986: Seven astronauts died as a result of the Challenger blast.

February 1986: Launch of the Soviet MIR space station.

April 1990: Launching the Hubble Space Telescope in orbit.

November 1998: Launch of the International Space Station (ISS), which has been inhabited since 2000.

April 2001: An American businessman, Denis Tito, became the first space tourist.

February 2003: The Columbia shuttle disintegrated over Texas, in an accident dying seven people.

October 2003: China has managed its first space flight with a human crew aboard. In 2008, the first space outfall of a "taikonaut" (the name under which Chinese astronauts are known) was made.

October 2008: India launches its first space mission without a human crew aboard the Moon.

February 2009: Iran launches a satellite, followed a year later by sending animals to space.

February 2010: Washington abandoned the "Constellation" program (launched in 2004), which predicted the return of the US astronauts on the Moon in 2020 and the conquest of Mars.

February 2011: The last flight of the US shuttle Discovery. From July, after the end of the last space missions of Endeavor and Atlantis, the Americans will depend exclusively on Russian Soyuz capsules to get into space (Rulkov *et al.*, 2016; Agarwala, 2016; Babayemi, 2016; Gusti and Semin, 2016; Mohamed *et al.*, 2016; Wessels and Raad, 2016; Rajput *et al.*, 2016; Rea and Ottaviano, 2016; Zurf and Zhang, 2016a; 2016b; Zheng and Li, 2016; Buonomano *et al.*, 2016a; 2016b; Faizal *et al.*, 2016; Ascione *et al.*, 2016; Elmeddahi *et al.*, 2016; Calise *et al.*, 2016; Morse *et al.*, 2016; Abouobaida, 2016; Rohit and Dixit, 2016; Kazakov *et al.*, 2016; Alwetaishi, 2016; Riccio *et al.*, 2016a; 2016b; Iqbal, 2016;

Hasan and El-Naas, 2016; Al-Hasan and Al-Ghamdi, 2016; Jiang *et al.*, 2016; Sepúlveda, 2016; Martins *et al.*, 2016; Pisello *et al.*, 2016; Jarahi, 2016; Mondal *et al.*, 2016; Mansour, 2016; Al Qadi *et al.*, 2016b; Campo *et al.*, 2016; Samantaray *et al.*, 2016; Malomar *et al.*, 2016; Rich and Badar, 2016; Hirun, 2016; Bucinell, 2016; Nabilou, 2016b; Barone *et al.*, 2016; Chisari and Bedon, 2016; Bedon and Louter, 2016; Santos and Bedon, 2016; Minghini *et al.*, 2016; Bedon, 2016; Jafari *et al.*, 2016; Chiozzi *et al.*, 2016; Orlando and Benvenuti, 2016; Wang and Yagi, 2016; Obaiys *et al.*, 2016; Ahmed *et al.*, 2016; Jauhari *et al.*, 2016; Syahrullah and Sinaga, 2016; Shanmugam, 2016; Jaber and Bicker, 2016; Wang *et al.*, 2016; Moubarek and Gharsallah, 2016; Amani, 2016; Shruti, 2016; Pérez-de León *et al.*, 2016; Mohseni and Tsavdaridis, 2016; Abu-Lebdeh *et al.*, 2016; Serebrennikov *et al.*, 2016; Budak *et al.*, 2016; Augustine *et al.*, 2016; Jarahi and Seifilaleh, 2016; Nabilou, 2016a; You *et al.*, 2016; Al Qadi *et al.*, 2016a; Rama *et al.*, 2016; Sallami *et al.*, 2016; Huang *et al.*, 2016; Ali *et al.*, 2016; Kamble and Kumar, 2016; Saikia and Karak, 2016; Zeferino *et al.*, 2016; Pravettoni *et al.*, 2016; Bedon and Amadio, 2016; Chen and Xu, 2016; Mavukkandy *et al.*, 2016; Yeargin *et al.*, 2016; Madani and Dababneh, 2016; Alhasanat *et al.*, 2016; Elliott *et al.*, 2016; Suarez *et al.*, 2016; Kuli *et al.*, 2016; Waters *et al.*, 2016; Montgomery *et al.*, 2016; Lamarre *et al.*, 2016; Petrescu, 2012b; Aversa *et al.*, 2017a; 2017b; 2016a; 2016b; 2016c; 2016d; 2016e; 2016f; 2016g; 2016h; 2016i; 2016j; 2016k; 2016l; 2016m; 2016n; 2016o; 2016p; Petrescu and Petrescu, 2016; 2015a; 2015b; 2015c; 2015d; 2015e; 2014a; 2014b ; 2014c; 2014d; 2014e; 2014f; 2014g; 2014h; 2014i; 2013a; 2013b; 2013c; 2013d; 2013e; 2013f; 2013g; 2012; 2011; 2005a; 2005b; 2005c; 2005d; 2003; 2002a; 2002b; 2000a; 2000b; 1997a; 1997b; 1997c; 1995a; 1995b; Petrescu, 2018; 2015a; 2015b; 2012; Petrescu *et al.*, 2016; 2017a; 2017b; 2017c; 2017d; 2018a; 2018b; 2018c; 2018d; Petrescu and Calautit, 2016a; 2016b; Daud *et al.*, 2008; Taher *et al.*, 2008; Zulkifli *et al.*, 2008; Pourmahmoud, 2008; Pannirselvam *et al.*, 2008; Ng *et al.*, 2008; El-Tous, 2008; Akhesmeh *et al.*, 2008; Nachientai *et al.*, 2008; Moezi *et al.*, 2008; Boucetta, 2008; Darabi *et al.*, 2008; Semin and Bakar, 2008; Al-Abbas, 2009; Abdullah *et al.*, 2009; Abu-Ein, 2009; Opafunso *et al.*, 2009; Semin *et al.*, 2009a; 2009b; 2009c; Zulkifli *et al.*, 2009; Ab-Rahman *et al.*, 2009; Abdullah and Halim, 2009; Zotos and Costopoulos, 2009; Feraga *et al.*, 2009; Bakar *et al.*, 2009; Cardu *et al.*, 2009; Bolonkin, 2009 a-b; Nandhakumar *et al.*, 2009; Odeh *et al.*, 2009; Lubis *et al.*, 2009; Fathallah and Bakar, 2009; Marghany and Hashim, 2009; Kwon *et al.*, 2010; Aly and Abuelnasr, 2010; Farahani *et al.*, 2010; Ahmed *et al.*, 2010; Kunanoppadon, 2010; Helmy and El-Taweel, 2010; Qutbodin, 2010; Pattanasethanon, 2010; Fen *et al.*, 2011; Thongwan *et al.*, 2011; Theansuwan and Triratanasirichai, 2011; Al Smadi, 2011; Tourab *et al.*, 2011; Raptis *et al.*, 2011; Momani *et al.*, 2011; Ismail *et al.*, 2011; Anizan *et al.*, 2011; Tsolakis

and Raptis, 2011; Abdullah *et al.*, 2011; Kechiche *et al.*, 2011; Ho *et al.*, 2011; Rajbhandari *et al.*, 2011; Aleksic and Lovric, 2011; Kaewnai and Wongwises, 2011; Idarwazeh, 2011; Ebrahim *et al.*, 2012; Abdelkrim *et al.*, 2012; Mohan *et al.*, 2012; Abam *et al.*, 2012; Hassan *et al.*, 2012; Jalil and Sampe, 2013; Jaoude and El-Tawil, 2013; Ali and Shumaker, 2013; Zhao, 2013; El-Labban *et al.*, 2013; Djalel *et al.*, 2013; Nahas and Kozaitis, 2013).

Materials and Methods

About the NASA's vision and mission. The vision of NASA is to improve life here, expand life there to find life beyond. His mission is to understand and protect the mother planet, explore the universe, seek life and inspire the next generation of explorers.

As a result of the Soviet space launch program for the first artificial satellite (Sputnik) on October 4, 1957, US attention focused on its own space program efforts. The US Congress, alarmed by the apparent threat of over-security and US leadership in technology, urged a rapid and immediate response; President Dwight D. Eisenhower and his counselors debated measures to that end. Several months of debate have led to the decision to set up a new agency to lead all non-military actions in space.

Although most of NASA's budget has been spent on space crew missions, there have been many missions and unmanned crew initiated by NASA. In 1962, the Mariner 2 mission was launched and became the first spacecraft to fly to another planet - Venus in this case.

The Ranger, Surveyor and Lunar Orbiter missions were essential for collecting monthly data before attempting Apollo human missions. Later, two Viking landers reached the surface of Mars and sent color images on Earth, but perhaps the most impressive was the mission Pioneer and particularly Voyager who visited Jupiter, Saturn, Uranus and Neptune and sent Earth color images and data from all of them. By losing space, the Soviet Union has changed its approach to the US. On July 17, 1975, an Apollo ship (found a new utility after the Apollo 18 mission was canceled) was used for the Soviet ship Soyuz 19.

Although the Cold War lasted for many years, it was a critical point in history NASA and, to a large extent, international cooperation in the exploitation of the cosmic space that exists today has its origin here. The first US space station Skylab has been concerned with NASA from the end of Apollo missions to the late 1970s.

On July 29, 1958, President Eisenhower signed the act establishing the United States Space Agency (NASA). When he began work on October 1, 1958, NASA consisted mainly of the four laboratories and some 8,000 employees of government agencies 46 years old Aeronautics, National Advisory Committee for Aeronautics (NACA). The first NASA programs were human space flight space research and were conducted under the pressure of the US-USSR (Space Race) competition during the Cold War.

The Mercury program, initiated in 1958, placed NASA on the path of space exploration by a man with missions designed to discover whether a man can survive in space. On May 5, 1961, astronaut Alan B. Shepard Jr. became the first American in space to run Freedom 7 on a suborbital flight. John Glenn was the first American in orbit around the Earth on February 20, 1962, in a 5-hour flight with Friendship 7.

Once Mercury demonstrated that human space flight is possible, the Gemini Project for Mission Prepares monthly. The first Gemini human flight crew was Gemini III on March 23, 1965, the crew being Virgil "Gus" Grissom and John W. Young. A further nine missions followed, demonstrating that a long-term human crew flight is possible, proving that meeting and docking with another space vehicle are possible and collected medical data on the effects of imponderability on the human body.

Results

Cosmic Commemoration:

- On June 20, 1969, the crew of the American ship "Apollo-11" made the first landing of man on the moon and the first Terrier who had set foot on the moon was Neil Armstrong
- Between July 26 and August 7, 1971, the flight of the US spacecraft "Apollo-15", which deposited two cosmonauts on the Moon and they explored the moon with a motor vehicle
- Between December 6th and 19th 1972, the US spacecraft "Apollo-17" of the "Apollo" program, during which an ultraviolet spectrometer was placed on a circumferential surface and an infrared radiometer designed to map the monthly surface
- Between 4th and 19th July 1974, the roundabout flight of the Soyuz-14 cosmic ship took place and of the "Salyut-3" orbital station, during which technical-scientific and biological experiments were carried out, as well as researches of the peripheral space, regrouping the Soviet-American joint mission "Soiuz-Apollo"
- On December 2, 1974, Baikonur launched the Soyuz-16 spacecraft, which was similar to Shuii-Apollo Ships and was prepared to test modernized board systems and equipment for scientific-technical, medical-biological research and tracking from the cosmos for economic purposes of terrestrial resources. "Soiuz-16" was "a general rehearsal" before the Soviet-American joint flight
- On July 15, 1975, the US-Soviet-American Soyuz-Apollo began the launch of a Soyuz spacecraft from Baikonur at 15 and 20 minutes on the same day, seven and a half hours, from the space base "Kennedy" (Cape Canaveral) rocket "Saturn-1 B-210" launched the complex "Apollo universal adapter"(Fig. 2)

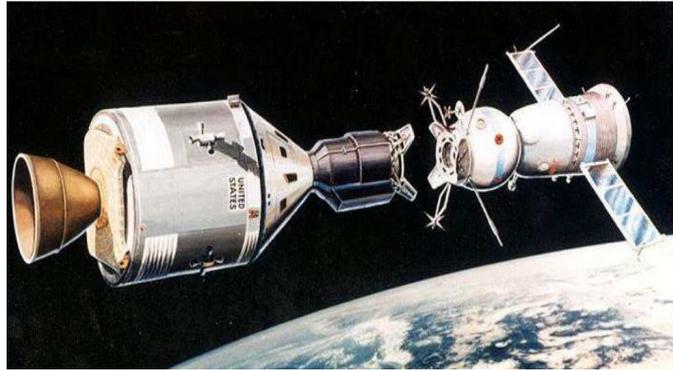


Fig. 2: The July 15, 1975, US-Soviet-American Soyuz-Apollo mission



"A small step for man, but a huge one for mankind."

Fig. 3: Neil Armstrong is a former American astronaut, the first man to step on the Moon on July 20, 1969, during the Apollo 11 mission

Discussion

The Space Race was a mid-to-late 20th-century competition between the Soviet Union (USSR) and the United States of America (USA) for supremacy in space exploration.

The race was both ideological and technological and involved pioneering efforts to launch artificial satellites, sub-orbital and orbital human space flights around the Earth and human crew on the moon (Fig. 3).

Sealing Neil Armstrong

Neil Armstrong (Fig. 3) is a former American astronaut, the first man to step on the Moon on July 20, 1969, during the Apollo 11 mission. On the descent on the moon, Armstrong said, "A small step for man, a huge leap for mankind", quoted later as famous. The astronaut Buzz Aldrin also participated in the landing. The event has been watched by millions of people around the world. The mission was a successful one, despite the skepticism of many (even Neil Armstrong later stated that before the

mission he believed there was a 50% chance of returning to Earth on the monthly surface).

Conclusion

The man has dreamed of flying ever since he started to go and he first looked up to heaven. But the desire to conquer the cosmic space appeared obviously much later when the technologies developed to a level sufficient to allow the launch of space.

The purpose of man on this earth in his very short life is not just to eat, drink, have fun and try to make wealth and reproduce. Obviously, the great man as he is today must also have more noble purposes, dream, but try to fulfill great ideals that bring him slowly but surely (step by step) the man supremacy into the universe.

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Ethics

Author declares that are not ethical issues that may arise after the publication of this manuscript. This article is original and contains unpublished material.

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