## **International Flights into Space**

Work done by Shemigon Ksenia Pupil of the 10th form School № 14 Teacher: V.P.Nesterenko

Выполнила работу ученица 10 А класса МБОУ СОШ № 14 Шемигон Ксения Преподаватель: В.П.Нестеренко. April 12 in the history of mankind will always be a unique date. 55 years ago the first man flew into space , and this man was a Soviet cosmonaut Yuri Gagarin.





During this time a lot has changed since the development of space exploration as science has not been possible without the co-operation between

the two countries .

- The first draft of "Intercosmos" from the Soviet Union and Czechoslovakia flew on March 2, 1978.
- The main crew consisted of A. Gubarev (USSR) and V. Remek (Czechoslovakia). The international crew of "Soyuz-28" was launched into space.

Then the USSR and Poland - June 27,

Cosmonauts Pyotr Klimuk (the USSR) and Miroslaw Hermaszewski (Poland) on "Salute-30" were launched into space. The USSR - GDR - August 27, 1978

Valery Bykovsky (the USSR) and Sigmund jähn (GDR) were held at the manned spacecraft "Soyuz-31".





#### The USSR and Bulgaria- April 10, 1979

#### The USSR and Cuba- September 18, 1980



Joint international next flight was a visit to orbital station "Salyut-6" with two cosmonauts Georgi Ivanov (Bulgaria) and Nikolai Rukavishnikov (the USSR).



Another guest of the Soviet orbital complex was the Cuban Arnaldo Tamayo Mendez, who arrived on the "Salyut-6" together with Yuri Romanenko (the USSR)

#### The USSR and Mongolia -March 23, 1981



The USSR and Romania -May 15, 1981



Another flight was made by joint Soviet-Mongolian crew Vladimir Dzhanibekov (the USSR) and Jugderdemidiin Gurragcha (Mongolia) on Board of "Salyut-6" Romanian Dumitru Prunariu and Leonid Popov (the USSR), "Salyut-6" The USSR and France -June 24, 1982

The crew included Soviet cosmonauts V. A. Dzhanibekov, Ivanchenko A. And French -J.-L. Chretien. Transport spacecraft "Soyuz T-6" took them on Board the orbital station "Salyut-7".



The USSR and the United States started to cooperate in 1962

During preparations for the flight regular meetings of specialists of these two countries were organized and they were held regularly in the USSR and the USA (during the period from 1972 to 1975, there were about 20 meetings), 11 joint tests of equipment, 6 trainings of crews and personnel of the flight control centres.



July 15, 1975 - "Soyuz-19" with A. Leonov and V. Kubasov on Board was launched from the Baikonur cosmodrome . Later from Cape Canaveral Apollo astronauts Thomas Stafford, Vance Brandom and Donald Slayton went into orbit.



# "Apollo-Soyuz"





After reaching orbit by both ships the appeal to them was made by the General Secretary of the CPSU Leonid Brezhnev and the U.S. President erald Ford. They wished the cosmonauts and the astronauts to have a safe flight, a successful job and a safe return to the Earth.

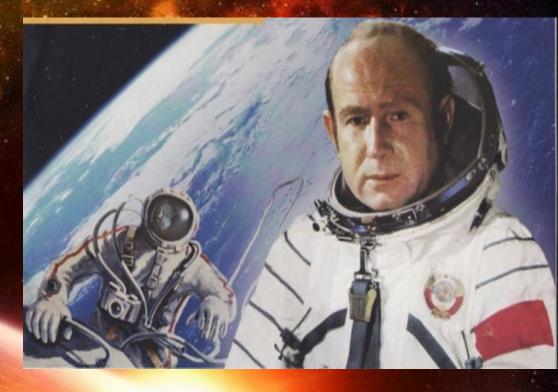


Both ships were in space at a distance of 6 thousand km from each other and started preparing for maneuvers. When the distance between them decreased to 410 km, they established a direct radio connection (before that they communicated only via the Ground).

Docking was performed on the third day of the flight. At this point, the spacecraft was over Europe. After docking aboard the space complex "Soyuz-Apollo" for three hours there was a preparation for the opening of the hatches separating the ships.



The first meeting in orbit of the crews of "Soyuz" and "Apollo" lasted more than 2.5 hours (although on the program it was assigned only 1.5 hours). Cosmonauts and astronauts exchanged the flags of their countries, souvenirs, signed a joint document about the flight. The Apollo astronauts handed Leonov the UN flag, as a symbol of peace. After a friendly dinner, the crews returned to their ships.



On the fourth day of the flight several mutual visits took place. In orbital module of Soyuz Leonov presented half of commemorative medals to Thomas Stafford . Stafford connected them with the second half that was on "the Apollo"; handed seeds of the American spruce to the Soviet cosmonauts. At this time Kubasov gave the seeds of coniferous trees to W. Brand, and D. Slayton. Together the crew conducted several experiments and a series of shootings on the ship.







Commemorative medal in honor of the flight. Both halves were connected in space during the joint flight of the complex "Soyuz-Apollo". During the flight the astronauts performed four transitions, then the transfer hatches were closed . The next meeting of the cosmonauts and astronauts took place only on the Earth. After undocking the ships continued flight by independent programs. After six days of the flight the cosmonauts of the "Soyuz-19" landed. "Apollo" flight continued for another 3.5 hours.

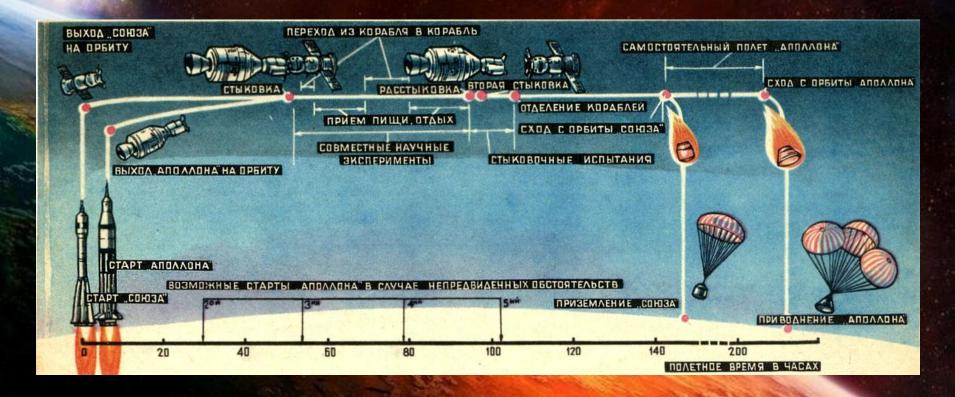


On 24 July, A. Leonov and V. Kubasov came to the mission control Center to watch the landing of "Apollo". The American ship successfully splashed down in the assigned region of the Pacific ocean.





### The Splashdown Of "Apollo"



So ended the first joint flight of the ships of the two countries. Its successful completion opened new prospects of joint cooperation between the two countries in the peaceful exploration of outer space, "Apollo-Soyuz" became the prototype of the international space stations



### APOLLO SOYUZ









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On the 15th July 1975 the USA and USSR jointly set out on a historical Mission whereby the respective crews would link up in space. The mission lasted seven days and the American and Russian Astronauts conducted various experiments, shared meals, and held a joint news conference. The Soyuz 19

spacecraft executed 96 orbits in 143 hours and 31 minutes, and the Apollo 18 spacecraft completed her mission with

136 orbits during a time of 217 hours and 30 minutes.





On July 17, 1975, Russian cosmonauts and American astronauts met in space.

GHANA

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Thank you for your attention.