

Contents »

The Apollo Project..... 2

THE APOLLO PROJECT

To Infinity, and Beyond

Rocket Motor

2000/107/1 Rocket motor, Apollo, Reaction Control System, metal and synthetics, Rocketdyne, United States of America, 1965-1970

As an integral part of the Apollo Command Module, the RCS engine was designed in conjunction with the design and development of its parent craft. The following contributed to the final design of the motor: NASA Marshall Space Flight Centre; North American Rockwell, Space Division (manufacturers of the Apollo Command and Service Modules); North American Rockwell Rocketdyne Division (manufacturers of the rocket motors for the Apollo/Saturn V rocket and Apollo spacecraft).

The Apollo RCS engine was manufactured by the Rocketdyne Division of the North American Rockwell Corporation, one of the leading US aerospace companies of the 1960s. Rocketdyne, which had its manufacturing facilities in Canoga Park, California, was one of the leading rocket engine manufacturers of the time and was responsible for developing and building the motors for the Saturn V launch vehicle, as well as the Apollo Command and Service Modules.

The exact date of manufacture of this particular RCS rocket motor is currently unknown. However, hardware for the Apollo program was generally manufactured between 1965 and approximately 1970, when it was decided to terminate the program by 1972.

The RCS rocket motor was an integral part of the Apollo Command Module, which was the prime spacecraft of the Apollo lunar program, which accomplished the first human landing on the Moon.

The Apollo program was the major American project in the "Space Race" between the United States and the USSR, which was one of the major technological and propaganda competitions between the two superpowers during the "Cold War" of the 1950s and 60s. The Apollo lunar landings effectively won the "Space Race" for the United States.

This rocket motor exemplifies one of the key rocketry technologies used in space-flight, that of the hypergolic motor, which uses a fuel and oxidiser that ignite on contact, due to chemical reactions, and do not require an additional ignition source. Hypergolic rocket engines are frequently used as manoeuvring thrusters on spacecraft and satellites, where simplicity of design (and therefore reduced weight) and certainty of ignition are required.

Toy space helmet

2005/203/3 Toy with packaging, "Astronaut Space Helmet", plastic / cardboard, made by D Dekker Ltd, London, England, used by Lachlann Partridge, Sydney, New South Wales, Australia, 1971-1972

Made in England by D Dekker Ltd London.

This toy space helmet is a good example of the many space toys available in Australia during the Apollo-era of the late 1960s and early 1970s. It adds to the Museum's strong collection of juvenilia documenting Australian childhood in the baby-boomer years and has excellent display potential. It complements the toy rockets and battery-powered space man figures in the collection.

Space exploration was a key theme in popular culture during the 1960s. The US and Soviet space programs inspired a host of children's toys, television shows and other space-related products. The space race culminated in the first Apollo moon landing, which is regarded by many as the most significant televised event in TV's 50 year history in Australia. When Neil Armstrong stepped out from the lunar module at 12.56pm on Monday 21 July 1969 AEST, most of the population of Australia were among the estimated 723 million people watching the event live. Newspapers reported that the streets were deserted. The range of space-inspired toys that were available in Australia suggests that the event captured the imaginations of children in this country. Today they are highly collectable.

Medallion commemorating 1969 landing on the Moon, Apollo 11 mission

87/528 Medallion, commemorating landing on the Moon, Apollo 11 mission, metal, unknown maker, possibly made in Australia, probably 1969.

Thought to be made in Australia in about 1969

On July 21, 1969, American astronaut Neil Armstrong, commander of the Apollo 11 Moon mission, became the first person to set foot on another world. This historic spaceflight marked the culmination of the so-called 'Space Race', one of the major Cold War propaganda battles between the United States and the USSR, which began in 1957, when the Soviet Union shocked the world by launching the first satellite, Sputnik 1. Stung by a string of Soviet firsts in space exploration, in May 1961 President Kennedy committed the United States to achieving a human landing on the Moon by 1970: a bold goal to set at a time when America's first astronaut had made only a 15 minute sub-orbital flight just 3 weeks before.

When Apollo 11's Lunar Module Eagle, with its crew, mission commander Neil Armstrong and Lunar Module pilot Col. Edwin 'Buzz' Aldrin, landed on the Moon, it effectively gave the United States the victory in the Space Race, as the Soviet Union had not been able to mount a successful lunar programme of its own. But the success of Apollo 11 was more than just a Cold War propaganda victory: when Armstrong stepped onto the lunar surface at 12.56pm Eastern Australian time and uttered his famous words 'That's one small step for (a) man; one giant leap for Mankind' he was fulfilling a centuries-old dream.

The desire to journey into the heavens is as old as humanity and the dream of travelling to the Moon has inspired poets and storytellers since Roman times. But it was not until the 20th Century that the technology to achieve spaceflight was developed and scientists and engineers looked forward to achieving this long-held goal. Apollo 11 therefore represented not just a Cold War political prize, it was also the accomplishment of an ancient Human aspiration: for the first time, people had left our home planet Earth and travelled to another world in the solar system.

Australia played an important part in all the Apollo missions, with NASA tracking stations at Carnarvon (WA) and Honeysuckle Creek and Tidbinbilla (ACT) providing vital communication links with the Apollo spacecraft. In particular, the Apollo 11 Moonwalk images broadcast to the world

were received at Honeysuckle Creek and the Parkes radio telescope.

Metal badge commemorating Apollo

87/288 Badge, pin, "APOLLO / USA", emblem for the Apollo Moon Landing Space Project, metal, unknown maker, probably made in the United States of America, about 1968

The maker of the badge is unknown. It was probably made in the United States of America, about 1968.

Badges of this type were made under licence from NASA as souvenirs of the United States Space Programme.

On July 21, 1969, American astronaut Neil Armstrong, commander of the Apollo 11 Moon mission, became the first person to set foot on another world. This historic spaceflight marked the culmination of the so-called 'Space Race', one of the major Cold War propaganda battles between the United States and the USSR, which began in 1957, when the Soviet Union shocked the world by launching the first satellite, Sputnik 1. Stung by a string of Soviet firsts in space exploration, in May 1961 President Kennedy committed the United States to achieving a human landing on the Moon by 1970: a bold goal to set at a time when America's first astronaut had made only a 15 minute sub-orbital flight just 3 weeks before.

When Apollo 11's Lunar Module Eagle, with its crew, mission commander Neil Armstrong and Lunar Module pilot Col. Edwin 'Buzz' Aldrin, landed on the Moon, it effectively gave the United States the victory in the Space Race, as the Soviet Union had not been able to mount a successful lunar programme of its own. But the success of Apollo 11 was more than just a Cold War propaganda victory: when Armstrong stepped onto the lunar surface at 12.56pm Eastern Australian time and uttered his famous words 'That's one small step for (a) man; one giant leap for Mankind' he was fulfilling a centuries-old dream.

The desire to journey into the heavens is as old as humanity and the dream of travelling to the Moon has inspired poets and storytellers since Roman times. But it was not until the 20th Century that the technology to achieve spaceflight was developed and scientists and engineers looked forward

to achieving this long-held goal. Apollo 11 therefore represented not just a Cold War political prize, it was also the accomplishment of an ancient Human aspiration: for the first time, people had left our home planet Earth and travelled to another world in the solar system.

Australia played an important part in all the Apollo missions, with NASA tracking stations at Carnarvon (WA) and Honeysuckle Creek and Tidbinbilla (ACT) providing vital communication links with the Apollo spacecraft. In particular, the Apollo 11 Moonwalk images broadcast to the world were received at Honeysuckle Creek and the Parkes radio telescope.

Apollo 11 Postcards

86/669 Postcards (4), commemorating the landing on the Moon of the "Apollo XI Space Mission", National Aeronautics and Space Administration photograph, made for the City of Liverpool Museums by Colin Richardson Printers Ltd, Brighouse, Yorkshire, England

The postcards were made for the City of Liverpool Museums by Colin Richardson Printers Ltd, Brighouse, Yorkshire, England in 1969 to commemorate the landing on the Moon by the Apollo 11 Mission in 1969

On July 21, 1969, American astronaut Neil Armstrong, commander of the Apollo 11 Moon mission, became the first person to set foot on another world. This historic spaceflight marked the culmination of the so-called "Space Race", one of the major Cold War propaganda battles between the United States and the USSR, which began in 1957, when the Soviet Union shocked the world by launching the first satellite, Sputnik 1. Stung by a string of Soviet firsts in space exploration, in May 1961 President Kennedy committed the United States to achieving a human landing on the Moon by 1970: a bold goal to set at a time when America's first astronaut had made only a 15 minute sub-orbital flight just 3 weeks before.

When Apollo 11's Lunar Module Eagle, with its crew, mission commander Neil Armstrong and Lunar Module pilot Col. Edwin "Buzz" Aldrin, landed on the Moon, it effectively gave the United States the victory in the Space Race, as the Soviet Union had not been able to mount a successful lunar programme of its own. But the suc-

cess of Apollo 11 was more than just a Cold War propaganda victory: when Armstrong stepped onto the lunar surface at 12.56pm Eastern Australian time and uttered his famous words "That's one small step for (a) man; one giant leap for Mankind" he was fulfilling a centuries-old dream.

The desire to journey into the heavens is as old as humanity and the dream of travelling to the Moon has inspired poets and storytellers since Roman times. But it was not until the 20th Century that the technology to achieve spaceflight was developed and scientists and engineers looked forward to achieving this long-held goal. Apollo 11 therefore represented not just a Cold War political prize, it was also the accomplishment of an ancient Human aspiration: for the first time, people had left our home planet Earth and travelled to another world in the solar system.

Australia played an important part in all the Apollo missions, with NASA tracking stations at Carnarvon (WA) and Honeysuckle Creek and Tidbinbilla (ACT) providing vital communication links with the Apollo spacecraft. In particular, the Apollo 11 Moonwalk images broadcast to the world were received at Honeysuckle Creek and the Parkes radio telescope.

Commemorative cologne bottle and packaging

B2247 Cologne bottle and packaging, Apollo-Soyuz commemorative, glass / cardboard, made by Revlon / Novaya Zaria, USA / USSR, 1975

The cologne was produced as a joint venture between Revlon, USA and Novaya Zaria Perfume Factory in Moscow, USSR to commemorate the international cooperation in space with the joint USA/USSR Apollo-Soyuz space mission. The full title of this mission was "Experimental Programme-Apollo Soyuz", hence the acronym EPAS, which was given to the fragrance. The cologne itself was manufactured in the USSR while the packaging (for both the USSR and world markets) was designed and manufactured by Revlon in the USA.

The fragrance is a mixture of oriental-floral blends with essences of lavender, citrus, spice, sandalwood and musk. The perfume was a "limited" edition production with the Soviet Union and each country in

which Revlon had a company was given an allocation of the fragrances for distribution. Revlon offices throughout the world arranged public relations functions to coincide with the space mission and the launching of the perfume, which was only available for a short period, during and after the Apollo-Soyuz mission.

In Australia, the fragrance was “launched” on July 17, 1975, two days after the mission began and the function was attended by the US and USSR consuls (according to Mr. Austin, Managing Director of Revlon Australia at the time).

The EPAS cologne joint venture was one of a number of similar “joint ventures” in various industries between the US and USSR, all of which were intended as Apollo-Soyuz commemorative ventures.

This cologne was produced as a joint venture between Revlon, USA and Novaya Zaria Perfume Factory, USSR, to commemorate the Apollo-Soyuz space mission in July 1975, which was the first joint US/USSR space mission. Known as the “Apollo-Soyuz Test Project” (ASTP) in the United States and as “Experimental Programme-Apollo-Soyuz” (EPAS) in the Soviet Union, this joint space flight is considered as signalling an end to the Space Race which began in 1957 and also a sign of détente between the two Cold War Superpowers.

EPAS cologne was a “limited edition” production with the Soviet Union and each country in which Revlon had a subsidiary was given an allocation of the fragrances for distribution. Revlon offices throughout the world arranged public relations functions to coincide with the space mission and the launching of the perfume, which was only available for a short period, during and after the Apollo-Soyuz mission. According to Mr. Austin, Managing Director of Revlon Australia at the time, the fragrance was “launched” in Australia on July 17, 1975, two days after the mission began, the promotional function being attended by consular representatives of the US and USSR. A press release relating to this launch states that the product was developed “Following the example set by the two governments and consistent with the fellowship implicit in man’s grand exploration of space”. This cologne was purchased

by the donor from the MYER department store, Tweed Heads on July 23, 1975. The purchase price was \$17.50.

The EPAS cologne joint venture was one of a number of similar “joint ventures” in various industries between the USA and USSR, all of which were intended as Apollo-Soyuz commemorative projects. Joint ventures such as this are significant, considering the two countries’ historically tumultuous relationship, and the so-called “Space Race” which had involved cultural, technological and political rivalry during the first decades of the exploration of outer space. The Space Race was an important propaganda tool of the Cold War, in which the US and USSR each sought to establish their ideological supremacy by demonstrating their technological superiority in the high technology arena of space exploration. The cessation of overt competition in space, as symbolised in the Apollo-Soyuz mission, was an important step on the road to political détente between the major powers as the Cold War thawed during the 1970s.

The Apollo-Soyuz commemorative cologne is an example of how space travel has captured public imagination, particularly during the 1960s and 1970s. Space travel is one of humanity’s most significant technological achievements, and this commemorative cologne reflects the popularity and esteem in which such developments are held.

Facsimile of Philatelic cover that orbited the Moon on the Apollo 11

A9099-612 Cover, facsimile of philatelic envelope carried on Apollo 11, paper, United States of America, 1969

This envelope was made in the United States of America in 1969

On July 21, 1969, American astronaut Neil Armstrong, commander of the Apollo 11 Moon mission, became the first person to set foot on another world. This historic spaceflight marked the culmination of the so-called “Space Race”, one of the major Cold War propaganda battles between the United States and the USSR, which began in 1957, when the Soviet Union shocked the world by launching the first satellite, Sputnik 1. Stung by a string of Soviet firsts in space exploration, in May 1961 President Kennedy committed the United States to achieving a human landing on the Moon

by 1970: a bold goal to set at a time when America's first astronaut had made only a 15 minute sub-orbital flight just 3 weeks before.

When Apollo 11's Lunar Module Eagle, with its crew, mission commander Neil Armstrong and Lunar Module pilot Col. Edwin 'Buzz' Aldrin, landed on the Moon, it effectively gave the United States the victory in the Space Race, as the Soviet Union had not been able to mount a successful lunar programme of its own. But the success of Apollo 11 was more than just a Cold War propaganda victory: when Armstrong stepped onto the lunar surface at 12.56pm Eastern Australian time and uttered his famous words 'That's one small step for (a) man; one giant leap for Mankind' he was fulfilling a centuries-old dream.

The desire to journey into the heavens is as old as humanity and the dream of travelling to the Moon has inspired poets and storytellers since Roman times. But it was not until the 20th Century that the technology to achieve spaceflight was developed and scientists and engineers looked forward to achieving this long-held goal. Apollo 11 therefore represented not just a Cold War political prize, it was also the accomplishment of an ancient Human aspiration: for the first time, people had left our home planet Earth and travelled to another world in the solar system.

Australia played an important part in all the Apollo missions, with NASA tracking stations at Carnarvon (WA) and Honeysuckle Creek and Tidbinbilla (ACT) providing vital communication links with the Apollo spacecraft. In particular, the Apollo 11 Moonwalk images broadcast to the world were received at Honeysuckle Creek and the Parkes radio telescope.