

## Chapter 1 : Keith Moon - Wikipedia

*'Strange figure' spotted among satellite's craters. The images used to create the lunar images for Google Moon come from Nasa, but the space agency has yet to comment on the discovery.*

Explore his vision of a new way to settle outer space. Fifty years ago, we humans took our first steps on the Moon. If and when we do set up homes there, what things – besides the survival basics – will we and should we bring with us? The luminous result of his contemplation and creation: An aerial view of the Moon temple, sitting on the rim of the Shackleton Crater. It would welcome all interested nations and people, and support a range of scientific, technological and commercial activities. How can we not perpetuate the same exploitative colonialism – the exploitation of natural resources and unfair distribution of power – that exists to this day? But its utter unfeasibility led the artist to an exciting realization: In fact, could this sense of a new possible on the Moon go beyond buildings – and be applied to the arts, politics, philosophy and international cooperation? What would structures be made out of? Because of the expense and difficulty of transporting materials through space, construction would likely rely on the resources at hand. The most abundant substance on the Moon is lunar soil, or regolith, rich in minerals including titanium, anorthite and iron. But what could be done with this dry and rocky dirt? The temple would be adobe made with lunar soil. The next practical concern: Where on the Moon would a temple sit? Image courtesy of Barakat Seoul. What would a temple contain? He envisioned it as a well-used structure, a hub for a future Moon Village and a place for settlers to gather for meaningful time together. He made objects like funerary masks, headpieces and neckpieces, blankets and vases – to tell the story of a future culture that has evolved in isolation from Earth but is still very much human. But he explains that his temple is a spiritual – not religious – structure. The ESA will be displaying a six-foot-long architectural model of the temple at its Noordwijk headquarters, to be unveiled by early But his wish is that the project invites the public to start thinking and talking through the issues surrounding space colonization. Her launchpad is located in Cambridge, UK.

**Chapter 2 : Who is this 'man' on the moon? 'Strange figure' spotted among satellite's craters - Mirror Online**

*Who's Who on the Moon: A Biographical Dictionary of Lunar Nomenclature [Elijah E. Cocks, Josiah C. Cocks] on racedaydvl.com \*FREE\* shipping on qualifying offers. Book by Cocks, Elijah E., Cocks, Josiah C.*

Ask someone if they know the names of the astronauts who have walked on the Moon, and most people would be able to list Neil Armstrong, and maybe even Buzz Aldrin. But can you name the rest of the Apollo astronauts who made it down to the lunar surface? How many people have walked on the Moon? In total twelve people have walked on the Moon. Interestingly, out of the dozen people who walked on the Moon, no one ever did it more than once. He was soon followed by Buzz Aldrin. In a nail-biting landing, Armstrong had to manually fly the Lunar Module past the intended landing spot, which he could see was filled with boulders. He landed safely in Tranquility Base with Aldrin keeping an eye on the altitude and velocity, along with a dangerously low fuel tank. In total, Neil and Buzz were on the lunar surface both inside their Eagle lunar module and walking on the Moon for only 21 hours, 36 minutes and 21 seconds and were outside walking in the Sea of Tranquility for just 2 hours, 31 minutes and 40 seconds. During their EVA, they collected rocks, planted the US flag, and deployed a seismograph and an experiment called the Lunar Ranging Retroreflector – a reflective device that measures the distance between the Earth and the Moon using lasers from Earth – which is still in use today. Apollo 12 – 2 people A footprint in the lunar regolith, taken during Apollo 11 in The Apollo 12 crew experienced two lightning strikes just after their Saturn V rocket launched on November 14, The jolts knocked out the guidance system and power for a time, but thanks to quick thinking by Mission Control and Alan Bean, the systems were recovered. The Apollo 12 crew proved they could make a pin-point landing, touching down just meters feet from the Surveyor 3 unmanned spacecraft. During one of their EVAs, Conrad and Bean walked to the Surveyor 3 spacecraft and removed pieces of it bring back to Earth for analysis. Conrad and Bean were on the Moon for two days, November 19 and 20, You can find out more about the Apollo 13 mission here. Apollo 14 – 2 people The launch of Apollo The next two people to set foot on the Moon were Alan Shepard and Edgar Mitchell who were part of the Apollo 14 mission. They launched on January 31, , and landed on February 5 in the Fra Mauro region of the Moon, the original destination for Apollo While on the Moon, Shepard fashioned a golf club and hit a couple of golf balls. Mitchell joined in by throwing a lunar scoop handle javelin-style. Apollo 15 – 2 people David Scott and James Irwin landed on the Moon on July 31, for the Apollo 15 mission, staying for three days, until August 2nd. Unlike the previous missions which landed on the flat lunar plains, the Apollo 15 landed between two mountains in an area called Hadley Rille. During three moonwalks, Scott and Irwin deployed several science experiments and collected 77 kg lb of lunar rock samples. Apollo 16 – 2 people John Young – caught mid-leap – salutes the American flag on the lunar surface. They landed though, and it was the first mission to land in the lunar highlands. They were on the lunar surface for three days, from April 21 to 23, John Young and Charles Duke spent 71 hours – just under three days – on the lunar surface, during which they conducted three moonwalks, totaling 20 hours and 14 minutes. The pair drove the lunar rover a total of Apollo 17 – 2 people Eugene Cernan on the lunar surface, December 13, They launched of the first night-time liftoff of the Saturn V rocket, and the astronauts of Apollo 17 landed on the Moon on December 11, Their three-day stay on the Moon lunar surface included three moonwalks, where they collected lunar samples and deployed scientific instruments. The Apollo 17 crew returned to Earth on December 19 after a day mission. Before he left the Moon, Cernan scratched the initials of his daughter Tracy into the lunar regolith. Since the Moon does not experience weather conditions like wind or rain to erode anything away, her initials should stay there for a very long time. And since , no person has been either on the Moon or in lunar orbit.

Chapter 3 : The 12 Men Who Walked on the Moon | Mental Floss

*Aldrin accompanied Neil Armstrong on the first moon landing in the Apollo 11 mission, becoming the second person, and now the first of the living astronauts, to set foot on the moon.*

Schmitt If you were born after the Apollo program, and maybe even if you remember those days, it seems almost unbelievable that NASA sent manned missions to the moon, miles away. People continue to express sadness at the fact that the Apollo lunar missions were so long ago, and that soon there will be no one left alive who actually went to the moon. Today, Alan Bean—the fourth man to walk on the moon and the last surviving member of the Apollo 12 mission—passed away at the age of 88. Which makes it the perfect time to remember—or get to know—the only 12 people who ever walked on a body other than planet Earth.

Armstrong was assigned as an astronaut in 1961, and flew on the Gemini 8 mission in 1966, where he performed the first successful space docking procedure. Armstrong was selected to be the first man to walk on the moon, as the Apollo 11 mission was planned, for several reasons: He later said, “Pilots take no special joy in walking: Pilots generally take pride in a good landing, not in getting out of the vehicle. Armstrong along with his crew were honored with parades, awards, and acclaim after their return to Earth, but Armstrong always gave credit to the entire NASA team for the Apollo moon missions. Armstrong served on the boards of many corporations and foundations, but gradually withdrew from publicity tours and autograph signings. Neil Armstrong died on August 25, 2012, at age 82. His family released a statement that concluded: Honor his example of service, accomplishment and modesty, and the next time you walk outside on a clear night and see the moon smiling down at you, think of Neil Armstrong and give him a wink.

Aldrin joined NASA as an astronaut in 1963. In 1965 he flew in the Gemini 12 spacecraft on the final Gemini mission. Aldrin accompanied Neil Armstrong on the first moon landing in the Apollo 11 mission, becoming the second person, and now the first of the living astronauts, to set foot on the moon. Aldrin had taken a home Communion kit with him, and took Communion on the lunar surface, but did not broadcast the fact. He later suffered from clinical depression and wrote about the experience, but recovered with treatment. Aldrin has co-authored five books about his experiences and the space program, plus two novels. Aldrin, who is now 88 years old, continues to work to promote space exploration. When Conrad stepped onto the moon, he said, “Whoopee!” Conrad later flew on the Skylab 2 mission as commander with the first crew to board the space station. Pete Conrad died on July 8, 1983, in a motorcycle accident. He was the lunar module pilot. Bean was also the commander of the Skylab Mission II in 1973, which spent 59 days in flight. Altogether, Bean logged 1,019 hours and 45 minutes in space. Bean is the only artist to have visited another world, so his paintings of the lunar environment have the authenticity of an eyewitness. He retired from the Navy with the rank of Captain, but continued to train astronauts at NASA until 1975, when he retired to devote time to his art. Bean died on May 26, 2018, at the age of 87.

Navy test pilot, he was selected as one of the original Mercury astronauts in 1959. Shepard was the first American launched into space aboard the Freedom 7 spacecraft on May 5, 1961. His suborbital flight reached an altitude of 160,000 miles. Barred from flight during the Gemini program because of an inner ear problem, Shepard had the problem fixed surgically and was assigned as commander of the Apollo 14 mission to the moon. During that time, he famously knocked a couple of golf balls with a six-iron attached to his sample-collecting tool. Shepard went into private business, serving on the board of several corporations and foundations. He founded Seven Fourteen Enterprises, an umbrella corporation named after his two space missions. Shepard wrote a book with Deke Slayton, *Moon Shot*: NASA selected him for the astronaut corps in 1961. In January of 1968, Mitchell flew on Apollo 14 as lunar module pilot, becoming the sixth man to walk on the lunar surface. He retired in 1975 and founded the Institute of Noetic Sciences, which explores psychic and paranormal events. His information, he admitted, came secondhand from various sources. Mitchell died on February 4, 2013, the eve of the 45th anniversary of his lunar landing. Selected as an astronaut in 1961, he flew with Neil Armstrong on the Gemini 8 mission and was command module pilot on Apollo 9. Scott then went to the moon on Apollo 15, which landed on the lunar surface on July 30, 1969. It was the first mission to land near mountains. Scott and Jim Irwin spent 18 hours exploring the lunar landscape in the Lunar Roving Vehicle in the first mission to use such a vehicle to travel on the moon.

Scott became famous for the "postage stamp incident," in which he took unauthorized postage stamp covers to the moon with the intent to sell them afterwards. NASA had turned a blind eye to such activities before, but publicity over the matter caused them to discipline Scott and he never flew again. David Scott is 85 years old. He was the lunar module pilot for Apollo 15 in . He notably took several groups on expeditions to Mt. James Irwin died on August 8, , of a heart attack. He was 61 years old. He was selected as an astronaut in and his first space flight was in aboard Gemini 3 with Gus Grissom. He achieved some notoriety at that time by smuggling a corned beef sandwich onto the flight, angering NASA. But Young went on to complete a total of six space missions in the Gemini, Apollo, and the space shuttle programs. He orbited the moon on the Apollo 10 mission, then was commander of the Apollo 16 mission and became the ninth person to walk on the moon. Young was also commander of the first space shuttle flight in and returned for shuttle flight 9 in , which deployed the first Spacelab module. Young was also scheduled for another space shuttle flight in , which was delayed after the Challenger disaster, so the veteran astronaut never made his seventh flight. Young finally retired from NASA after 42 years of service in . John Young died on January 5, at the age of 87 following complications with pneumonia. Astronaut Charles Duke was capcom during the Apollo 11 mission. His is the voice you recall saying, "Roger, Twank Tranquility, we copy you on the ground. You got a bunch of guys about to turn blue. Duke also made history by catching German measles while training in the backup crew for the Apollo 13 mission , exposing the crew to the disease and causing Ken Mattingly to be replaced by Jack Swigart on that terrifying spaceflight. Duke went to the moon with Mattingly as command module pilot on the Apollo 16 mission in April of . Air Force, and founded Duke Investments. Duke also became a Christian and a lay minister to prison inmates. Charles Duke is 82 years old. In fact, he was only the second civilian to fly into space, after Neil Armstrong, who was a veteran at the time of his flights. Schmitt was assigned to fly to the moon on the Apollo 18 mission, but when the Apollo 18 and 19 missions were cancelled in September of , the scientific community lobbied to have Schmitt reassigned to Apollo 17 replacing Joe Engle as lunar module pilot. He was the first scientist in outer space. On the Apollo 17 mission, he and Gene Cernan spent three days on the lunar surface a record and drove their Lunar Roving Vehicle around collecting samples, conducting experiments, and leaving measuring instruments behind. Schmitt and Cernan gathered pounds of lunar material to take back. In recent years, Dr. Jack Schmitt is 82 years old. He was accepted into the astronaut program in . Cernan was assigned commander of the Apollo 17 mission before anyone knew it would be the last Apollo mission. Even after the Apollo program was cut, no one knew for sure that travel to the moon would be abandoned for decades. When Schmitt and Cernan boarded their lunar module for the last time on December 13th, , Cernan said: And, as we leave the Moon at Taurus-Littrow, we leave as we came and, God willing, as we shall return: Godspeed the crew of Apollo . He went on to found an aerospace technology firm, and wrote a book about his experiences as an astronaut. He also contributed his talents to ABC-TV as a commentator during shuttle flights and has made appearances on various space specials. In September of , Cernan testified before Congress on the future of the space program. Those best and brightest minds at NASA and throughout the multitudes of private contractors, large and small, did not join the team to design windmills or redesign gas pedals, but to live their dreams of once again taking us where no man has gone before. Gene Cernan died on January 16,

Chapter 4 : List of Apollo astronauts - Wikipedia

*Ask someone if they know the names of the astronauts who have walked on the Moon, and most people would be able to list Neil Armstrong, and maybe even Buzz Aldrin.*

There is a very large body of evidence that clearly shows something strange is connected with this orbiting body. Yet none of this data has ever been publicly explored or discussed in documentaries. We will begin with the known statistics of our satellite: This theory was the result of researching satellite probe data. Science already knows that tides control the behavior and life cycles of shore and sea-based creatures. Could the Moon have caused this to happen? However, there is a silence from NASA regarding the seismographic instrument data that Apollo left behind - Moonquakes are taking place on our nearest neighbor. This equipment could run for many decades, as each installation is powered by a radioactive isotope thermal generator. Even more strange are that these events are taking place on the far side. This was discovered more than 20 years ago. This has yet to be proven. A large body of evidence was provided which showed some very odd events taking place on the Moon. In the meeting, a paper was presented by Nakamura, Y. They state the center of the Moon may be hollow. My explanation of scientific terms are enclosed in [ ]: Although only a few of them are currently locatable, the relative arrival times among stations for the rest and presence or absence of seismic signals at particular stations suggest that either: In b above, this could make sense if the deep interior is hollow. Aside from the obvious question of how to distinguish between such hypothetical models, this effort raised several more general questions concerning the use of deep Moonquake signals to infer the structure and dynamics of the deep interior of the Moon Only these areas have been selected due to: Here, we report results of a correlation study between magnetic anomaly clusters and geology in areas antipodal to Imbrium and Orientale The data was obtained from the orbiting Lunar Prospector satellite. Yet in the absence of an overall planetary magnetic field magnetosphere no one can determine how this magnetization could happen. If the mini-magnetosphere exists on the lunar surface deflects solar wind particles, its role of barrier could produce a high-albedo region around the magnetic anomaly. In this study, we mainly investigate magnetic anomaly fields in the solar wind at low-altitude km with a data of level 1. We detected lunar magnetic anomalies after preprocessing of the level 1 data In the present study, magnetic anomalies were mapped from the data sets in the tail lobe, the Moon wake and the solar wind, and were compared with each other Its contour pattern of magnetic field intensities in the tail lobe or the wake is almost symmetrical with respect to the north-south line. However, such symmetry [of the magnetic field] is obviously distorted in the solar wind to show some elongation toward the downstream of the solar wind. These results may support existence of the mini-magnetosphere in Reiner Gamma region. Many other papers and studies exist that use data collected by NASA instrumentation which we cannot cover here.

**Chapter 5 : NASA - The First Person on the Moon**

*George Leonard uses NASA photos to show that the moon has been colonized by an alien race who left the surface littered with huge structures and machines (is littering a interplanetary offense?).*

He was hyperactive as a boy, with a restless imagination and a particular fondness for The Goon Show and music. Moon attended Alperton Secondary Modern School after failing his eleven plus exam , which precluded his attending a grammar school. "Idiotic in other respects". His music teacher wrote that Moon "has great ability, but must guard against a tendency to show off. He left school at age fourteen, around Easter in . His favourite musicians were jazz artists, particularly Gene Krupa whose flamboyant style he subsequently copied. In April , at age 17, [21] he auditioned for the Who as a replacement for Doug Sandom. The Beachcombers continued as a local cover band after his departure. Dressed in ginger clothes and with his hair dyed ginger future bandmate Pete Townshend later described him as a "ginger vision" , [23]: I figured that was it. I was scared to death. Afterwards I was sitting at the bar and Pete came over. This later carried over to other aspects of his life, as he acted them out according to journalist and Who biographer Dave Marsh "as if his life were one long tour. Moon continued briefly and then stopped, shouting "Drum solos are boring! The concert was bootlegged as For Badgeholders Only. Although not an especially gifted vocalist, Moon was enthusiastic about singing and wanted to sing lead with the rest of the group. He provided humorous commentary during song announcements, although sound engineer Bob Pridden preferred to mute his vocal microphone on the mixing desk whenever possible. Throughout much of and his setups consisted of Ludwig drums and Zildjian cymbals. Moon began to endorse Premier Drums in late , and he remained a loyal customer of the company. In he moved to an even larger kit, [54] but without the customary hi-hat "at the time Moon preferred keeping backbeats with ride and crash cymbals. His new larger configuration was notable for the presence of two bass drums. Moon, along with Ginger Baker , has been credited as one of the early pioneers of double bass drumming in rock. When Haynes said that it would be prohibitively expensive, Moon replied: When the audience demanded he do it again, Moon kicked over his drum kit. During the finale of "My Generation," an altercation broke out on stage between Moon and Townshend which was reported on the front page of the New Musical Express the following week. Moon and Entwistle left the Who for a week with Moon hoping to join the Animals or the Nashville Teens , but they changed their minds and returned. However, stands and foot pedals were frequently replaced; the drummer "would go through them like a knife through butter. When he briefly considered leaving the Who in , he spoke with Entwistle and Page about forming a supergroup. Moon or Entwistle remarked that a particular suggestion had gone down like a "lead zeppelin " a play on "lead balloon". Although the supergroup was never formed, Page remembered the phrase and later adapted it as the name of his new band. Moon did not play drums on the album; Jerry Shirley did, with Moon providing percussion. Although it featured Moon on vocals, he played drums on only three tracks; most of the drumming was left to others including Ringo Starr , session musicians Curly Smith and Jim Keltner and actor-musician Miguel Ferrer. When asked by an audience member what would happen to the kit, he joked that "even the best drummers get hungry. Although it only took 13 days to film, fellow cast member Howard Kaylan remembers Moon spending off-camera time at the Kensington Garden Hotel bar instead of sleeping. This was the last film to star Mae West. Longtime friend and personal assistant Butler observed, "He was trying to make people laugh and be Mr Funny, he wanted people to love him and enjoy him, but he would go so far. He then jumped back into the limo, saying "I nearly forgot. He did not keep a drum kit or practise at Tara , and began to deteriorate physically as a result of his lifestyle. By the time Stardust came round it was hard drinking. Tony Fletcher wrote that "no toilet in a hotel or changing room was safe" until Moon had exhausted his supply of explosives. The drummer explained that since a cherry bomb was about to explode, he had thrown it down the loo and showed Townshend the case of cherry bombs. We shared a room on the road and got up to no good. In a Los Angeles Times interview he admitted, "A lot of times when Keith was blowing up toilets I was standing behind him with the matches. According to Entwistle, "That toilet was just dust all over the walls by the time we checked out. The management brought our suitcases down to the gig and said: Upon returning, he asked

the manager to stay for a moment, as he wanted to explain something. Following the explosion, Moon turned the recorder back on and said, "That, dear boy, was noise. According to Lewis, Moon was drunk by the time the band went onstage at Atwood Stadium. The drummer knocked out part of his front tooth; at the hospital, doctors could not give him an anaesthetic due to his inebriation before removing the remainder of the tooth. The chaos ended only when police arrived with guns drawn. By this point in his career, it was uncertain whether he could finish a show without incident. They gave him a shower and an injection of cortisone, sending him back onstage after a thirty-minute delay. Moon passed out again during " Magic Bus ," and was again removed from the stage. The band continued without him for several songs before Townshend asked, "Can anyone play the drums? The next evening Moon systematically destroyed everything in his hotel room, cut himself doing so and passed out. Because I want to break your fucking jaw At the end of the US tour in Miami that August, the drummer, delirious, was treated in Hollywood Memorial Hospital for eight days. He bought a number of cars and gadgets, and flirted with bankruptcy. This erroneous date appeared in several otherwise-reliable sources, including the Townshend-authorized biography *Before I Get Old: The Story of The Who*. He was an attention seeker and he had to have it. He would join them at clubs, forming a particularly close friendship with Ringo Starr. Smith remembers one occasion where he and Moon tore apart a pair of trousers, with an accomplice later looking for one-legged trousers. In an interview with *Guitar World* magazine, he recalled that the drummer "taught me how to break things. Pub patrons had begun to attack his Bentley and Moon, drunk, began driving to escape them. During the fracas, he hit Boland. According to Pamela Des Barres, Moon had nightmares which woke them both about the incident and said he had no right to be alive. Cass Elliot had died there four years earlier, at the age of 32; [] [] Nilsson was concerned about letting the flat to Moon, believing it was cursed.

Chapter 6 : Somebody Else Is On The Moon - 1

*It was John F. Kennedy who was the president of the United States. He wanted to land humans on the moon. The United States had just started trying to put people in space. Was NASA ready to go to the moon? The president and NASA knew they could do it. They were ready to put people on the moon. Apollo 11's mission was to land two men on the moon.*

October 27, Space-faring nations have agreed to a variety of policies and treaties that concern activities in space exploration. As soon as humans reached for the stars, some reached for the law books. In 1959, the International Institute of Space Law, a nongovernmental organization, was created to promote international cooperation in the space law-making process. Today, several universities worldwide offer programs and degrees in space law. The field of space law evolved to deal with questions such as property rights, weapons in space, protection of astronauts and other matters. However, space law remains a challenging field to define. Also, national priorities change over time, and those priorities may not be reflected in treaties that were created decades ago. As of mid-1990s, it has 77 members, including major space-faring nations such as the United States, NASA, Russia, Roscosmos, Japan, China, Canada, Brazil, Australia and the member states of the European Space Agency. The United Nations describes this committee as the "focal point" where international entities negotiate how to use space peacefully. The treaty has several major points to it. Some of the principal ones are: Space is free for all nations to explore, and sovereign claims cannot be made. Space activities must be for the benefit of all nations and humans. So, nobody owns the moon. Nuclear weapons and other weapons of mass destruction are not allowed in Earth orbit, on celestial bodies or in other outer-space locations. In other words, peace is the only acceptable use of outer-space locations. Individual nations states are responsible for any damage their space objects cause. Individual nations are also responsible for all governmental and nongovernmental activities conducted by their citizens. These states must also "avoid harmful contamination" due to space activities. Treaties, principles and conferences To support the Outer Space Treaty, four other treaties were put into place in the 1960s and 1970s to support peaceful space exploration. These treaties referred to below by their nicknames are: The "Rescue Agreement", formed to give astronauts assistance during an unintended landing or when they are facing an emergency. States are told they "shall immediately take all possible steps to rescue them and render them all necessary assistance. Its first article says, "A launching state shall be absolutely liable to pay compensation for damage caused by its space object on the surface of the earth or to aircraft flight. This United Nations registry is important for matters such as avoiding space debris. The "Moon Agreement", which gives more detail on the Outer Space Treaty for property rights and usage of the moon and other celestial bodies in the solar system except for objects that naturally enter the Earth from these bodies, namely, meteorites. This treaty, however, has only been signed by 16 nations, all of which are minor players in space exploration. The "Declaration of Legal Principles", from which the Outer Space Treaty was created in 1967, lays down guiding principles, including the idea that space exploration is for the benefit of all humans. The "Broadcasting Principles" has to do with television broadcast signals. The "Nuclear Power Sources Principles" concerns how to protect humans and other species from radiation if a launch goes awry, or a spacecraft flying by Earth accidentally crashes to the surface. The "Benefits Declaration" says that space exploration shall be carried out for the benefit of all states. This was created two years before the International Space Station – an effort of 15 nations – launched its first two modules into space. A fourth one will take place in 2015. This is what each conference focused on or will focus on: Progress in space exploration, international cooperation and creating an "expert on space applications" within UNOOSA. The United Nations body then had several workshops in the 1980s on space applications such as remote sensing, telecommunications and cartography. Peaceful exploration of space specifically, how to avoid an arms race. Following the conference, UNOOSA worked more closely with developing countries to develop their space technology capabilities. This led to the Vienna Declaration on Space and Human Development, with 33 recommendations for space-faring countries to follow. A follow-up report to the declaration was issued in 1990, five years after the conference. Major debates It should be emphasized again that the U.S. There have been,

however, some debates over the years about some of the major principles of space law. While the ultimate interpretation of these matters is up to lawyers, here are some of the major questions: This is mostly regulated by country. The FAA is also working on guidelines to protect space passengers when tourism companies start operating. Parts of the system were tested on Earth, but it was never completed. The concern was that the portions of the system with space weapons would violate the Outer Space Treaty. Without careful care, some experts worry that space access will become restricted by debris, but it is unclear what the legal ramifications are. In 2007, China received international condemnation for deliberately destroying a satellite in Earth orbit, which led to a cloud of space debris. In 2011, a piece of that debris damaged a Russian satellite. In the United States, there are two major companies hoping to perform asteroid mining in the coming years: Deep Space Industries and Planetary Resources. In 2015, the United States passed the U.S. Commercial Space Launch Competitiveness Act. While this makes resource hunting legal for U.S. companies, it also creates boundary disputes and property rights. For the moment, the Outer Space Treaty says that space and celestial bodies cannot be claimed by other nations, but it is unclear how these provisions would apply to private companies. The Commercial Space Launch Competitiveness Act see above does not allow for territorial claims. But with nations talking about landing on places such as the moon and Mars, it is unclear how the exploitation rights and the property rights would work in the case of adjacent colonies. Some suggest that Antarctica, a territory owned by no nation and used mainly for scientific purposes, could be a model to follow but not everyone agrees. Satellites positioned roughly 26,000 miles (41,840 kilometers) above the equator have the same rotation period as the Earth. This allows them to remain in approximately the same location above Earth for years while expending a minimum of fuel, making them useful for telecommunications signals. These slots are limited and are regulated by the International Telecommunication Union. Nations agreeing to work together on a space project can experience problems from time to time. The most major international project, the International Space Station, has an international treaty and various other provisions governing its operations among the 15 member nations, covering situations such as crimes or proprietary rights. In principle, each nation retains control over its own elements and personnel; in most cases, however, damages cannot be claimed among the five major signatories on the station under a "cross-waiver of liability" clause on all contracts.

### Chapter 7 : Who's Orbiting the Moon? | Science Mission Directorate

*This led to a resurgence of jokes about Moon Moon the wolf on Twitter. User @saynt tweeted a screenshot of the original Moon Moon Tumblr post in the replies to New Scientist's tweet, gaining over retweets and 1, likes (shown below, left).*

Slayton was responsible for making all Gemini and Apollo crew assignments. The prime crew members selected for actual missions are here grouped by their NASA astronaut selection groups, and within each group in the order selected for flight. Block I intended for preliminary low Earth orbit testing, and Block II which was designed for the lunar landing. The corresponding Block II titles were: This mission ended a month before its scheduled launch [1] when a cabin fire on the launch pad killed Grissom and his entire crew— Ed White and Roger Chaffee —on January 27, According to Slayton, Grissom would have been his choice to be the first to walk on the Moon. He was the only member of the "Mercury Seven" to fly on all three programs. After corrective surgery, Shepard was restored to flight status and commanded Apollo 14 , the third successful Moon landing mission. White was killed in the Apollo 1 fire along with Grissom and Chaffee. This mission flew in March as Apollo 9. Lovell became the first to fly a second Apollo mission as commander of Apollo 13 , the third lunar landing attempt. This mission was unsuccessful, due to a Service Module electrical system failure caused by an oxygen tank explosion. Lovell and his crew managed to return to Earth safely. He also commanded the Apollo—Soyuz Test Project mission. Young later commanded the successful Apollo 16 lunar landing. He died January 5, Armstrong — Commander of Gemini 8 , commanded Apollo 11 , becoming the first man to set foot on the Moon. Charles "Pete" Conrad Jr. He went on to command Skylab 2, successfully completing repairs to the spacecraft that saved it for this and two subsequent missions. From Astronaut Group 3 [ edit ] NASA Astronaut Group 3 This was the first class of astronauts for which test pilot experience was not required, but military jet fighter pilot experience was acceptable. Five of this group got their first spaceflight experience as second seat on Gemini:

**Chapter 8 : Moon Moon | Know Your Meme**

*Meet the Man Who Owns the Moon. A loophole in a United Nations charter has allowed Dennis Hope to sell plots on the moon for more than 30 years.*

The space around Earth is a busy place, as teeming with traffic as a roundabout. More than active satellites are bustling about up there right now. Soon the space around the moon will be busy too. Why is the moon such a draw? We can see it better than we can see anything else in space. It represents a grand first step for them. Japan and China are orbiting the moon right now. It is huge, consisting of three separate satellites, and has excellent instruments. It will do a lot of particles and fields work that no other currently planned orbiter will do. Plus it will be able to train all its instruments toward the same spot on the moon simultaneously. During its 1-year mission, it will map the moon by taking three-dimensional images of the entire lunar surface. This satellite will send back the first detailed pictures of some areas near the poles where water ice is most likely to be found. In Sanskrit, "Chandrayaan" means "Moon Craft. Chandrayaan-2, planned for or , will place a robotic rover on the moon. The rover will wheel around on the lunar surface, pick up samples of soil or rocks, do chemical analysis, and send the data to the spacecraft orbiting above. This lets us look at potential landing sites to assess the terrain and hazards for a human return. An example of overhead photography at 50 cm resolution, the same resolution Lunar Reconnaissance Orbiter will bring to bear on the Moon. The US has already been there, you say? The pull to return is strong. There will be a renaissance in lunar scientific exploration in the next several decades that the US will not want to miss. The pull of the moon to emerging space programs around the world can be a catalyst for a new era of space exploration; one of international cooperation

### Chapter 9 : Moon Man | Know Your Meme

*Apollo astronauts who flew to the Moon without landing. Besides the 12 people who have walked on the Moon, 12 more have flown to within lunar distance of its surface. During each of the six missions with successful lunar landings, one astronaut remained in lunar orbit while the other two landed.*

The First Person on the Moon NASA It was Kennedy was the president of the United States. He wanted to land humans on the moon. The United States had just started trying to put people in space. Was NASA ready to go to the moon? The president and NASA knew they could do it. They were ready to put people on the moon. They also had to come back to Earth safely. Apollo 11 blasted off on July 16, Four days later, Armstrong and Aldrin landed on the moon. They landed on the moon in the Lunar Module. It was called the Eagle. Collins stayed in orbit around the moon. He did experiments and took pictures. The sign the astronauts left on the moon says, "Here men from the planet Earth first set foot upon the moon July , A. We came in peace for all mankind. He and Aldrin walked around for three hours. They picked up bits of moon dirt and rocks. They put a U. They also left a sign on the moon. The two astronauts returned to orbit, joining Collins. On July 24, , all three astronauts came back to Earth safely. It took less than 10 years. Humans had walked on the moon.