



Apollo Moon Hoax Charges Falter Under Light of Critical Analysis

A little deep thought can easily blow away that hoax smoke

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I want to thank all of the students and adults who have sent me questions about the things that they have seen, heard or read in the Apollo hoax documentary material.

I will gladly attempt to answer all questions, but I will not attempt to tell you what to think as we should never accept another person's statements as a matter of fact just because they have more education or are "older and wiser" than we might be. Your quest for knowledge should be much more than asking others for their views or opinions. I suggest that the most effective answers to these hoax claims can be found in the pages of books in your local public or school library. The Apollo hoax people, like all successful hucksters, rely on the fact that most of us are too lazy to learn all of the things that we need to learn before we can make an accurate and effective conclusion.

A huckster succeeds financially because he already has "all of the answers" handily packaged for you. (No "thinking" required!) A lot of successful sales people exploit a consumer's lack of product knowledge in a similar manner. A smart shopper will "read up" on the specific product that he or she is looking for so that he/she can spot the falsehoods and exaggerations in a sales pitch. A wise first time computer buyer, car buyer or home buyer will expend the effort to learn the technical aspects of the product being sought. The Apollo conspiracy hoax hucksters have experienced some financial and marketing success because that are selling a "hoax" product that our schools and media have not adequately prepared the members of the general public to evaluate. Spaceflight is not an everyday area of expertise for most people. Spaceflight is a topic that requires some extensive preparation and intellectual effort to adequately understand.

"That bountiful "salad of life" that we know as the human race would not be complete without a few "nuts" sprinkled in. The arguments put forth by the Apollo Conspiracy Hoax hucksters are not worth their weight in peanuts. Their wacky arguments are not supported by a single historic fact or scientific fact. " - Jim McDade

I am grateful that we live in a free society that permits people to present their personal views, no matter how extreme, bizarre, inaccurate or incorrect those views might be. The hoax proponents should not be censored by the government and they are not being officially censored, thankfully. The conspiracy hoaxers do face ridicule and embarrassing moments when they are publicly rebuffed by engineers, scientists and people in the media. I feel sorry for them, but mostly I feel sorry for their families, especially their children. The embarrassment must be tough on the loved ones of those families. I have exchanged thoughts with some friends and relatives of

one of the hoaxers and I know that some are embarrassed for their dear one who continues to "joust with the windmill" of reality.

Perhaps the Bart Sibrels and Bill Kaysings of the world are suffering the angst and misery of the most extreme case of what was so poetically described by the great Joe Walsh:

Sometimes I can't help the feeling that I'm

Living a life of illusion

And oh, why can't we let it be

And see thru the hole in this wall of confusion

I just can't help the feeling I'm

Living a life of illusion

Many schools do need to do a better job of teaching space science. Unfortunately, science-fiction is more popular than "science fact", so the addicts of popular media (Star Trek, X-Files, Star Wars, etc.) are ill-prepared to evaluate the Apollo hoax arguments, unless of course, they have a scientific-engineering background. Then again, some people are just gullible enough to accept any conspiracy claim involving the US government without examining the argument critically. US political leaders and some government officials have certainly committed more than enough heinous acts to merit suspicions in the minds of good citizens. However, our necessary vigilance should not lead us down the path of automatically assuming that the government would lie about Apollo.

I encourage you to always rely on critical thinking skills when you evaluate the statements and arguments that others publish. The human brain may be the most under utilized part of the human anatomy. We could all stand to do a little more "mental exercise" every day. Turn off the television and pick up a good book for thirty minutes or so every night. Your taxes help pay for your local public library. Go there and get your money's worth in new knowledge and adventure.

Personally, I have no doubt that Apollo carried astronauts to the moon and returned them to earth. The burden of proof lies on the shoulders of those who claim to contradict the historical and technical account of Apollo. It is far too easy to point at any historical account and fabricate the claim that, "that is not the way it happened". The people who say Apollo never went to the moon have never offered any proof that they possess the academic background in science or engineering that would credibly support even the least spectacular of their bizarre claims. In other words, all of the Apollo hoax hucksters are unqualified to challenge the science and engineering that they address in their arguments. The people who fabricate the Apollo hoax charges are either being dishonest about their professional qualifications and credentials or they are obviously unqualified. That dearth of professional or credible technical credentials seriously discounts the hoax proponent arguments that involve scientific or engineering concepts.

Secondly, the conspiracy charges do not stand the test of critical review. These conspiracy claims contain both the earmarks of either anti-government propaganda and the refined techniques marketing hucksters. The writers of these claims are obviously unqualified, but they are not totally stupid. They know how to prepare a "quick-hitting" popular presentation suitable for mass consumption and capable of generating some cash flow from the "conspiracy" market. The typical "mark" for their shoddy product (videos, publications, etc.) is the same kind of person who typically follows UFO-ology and supernatural affairs such as telekinesis, psychic consulting, poltergeists, crop circles, and various conspiracy theories. There are a lot of these people "out there" waiting to fill the consumer demand side of the marketing equation that directs thousands of dollars into the bank accounts of these clever hucksters. Perhaps, that is the real conspiracy that someone should investigate. "Hucksterism" is not a well defined crime, so it is all too easy to "get away" with sham marketing schemes that serve to separate hard working people from their spending money.

The hoax charges are never well prepared or well thought out in advance of publication. The hoax accusers never provide the Apollo archival catalog numbers when they publish a picture that they claim as part of their "evidence". Extraordinary charges require extraordinary documentation to support them. The hoax advocates have universally failed to meet the standards of evidence by both the legal and scientific standards of evidence.

The great writer Norman Mailer actually addressed the possibility of an Apollo hoax as he watched the moon walk "live" back in 1969. At the time, the landing on the moon was such a monumental and historic event that some people had great difficulty grasping the reality of it. That day was almost like a dream come to life. Here are Mailer's notes from that night:

"The even (Apollo 11 moonwalk) was so removed, however, so unreal, that no objective correlative existed to prove it had not been an event staged in a television studio---the greatest con of the century--- and indeed a good mind, product of the iniquities, treacheries, gold, passions, invention, deception, and rich worldly stink of the Renaissance could hardly deny that the event if bogus was as great a creation in mass hoodwinking, deception, and legerdemain as the true ascent was in discipline and technology. Indeed, conceive of the genius of such a conspiracy. It would take criminals and confidence men mightier, more trustworthy and more resourceful than anything in this century or the ones before. Merely to conceive of such men was the surest way to know the event was not staged."

Indeed, some people still claim that the earth is flat despite the fact that Magellan's expedition of discovery was completed in the early 16th century. Conspiracy fantasies are apparently irresistible for some people. I have no doubt that someone will still be claiming that Apollo was a hoax 500 years from today, when travel to and from the moon will be routine and affordable for tourists. I also have no doubt many people will not expend the intellectual energy and effort required to learn how to discard the pathetic Apollo hoax arguments. The Apollo hoax hucksters stake a substantial financial investment on the fact that a certain percentage of the population is just intellectually lazy. It is much easier to "know" than it is to "learn".

[CLICK HERE TO READ Bart Sibrel's, "The Top Ten Reasons Why No Man Has Ever Set Foot on the Moon" and my point by point response](#) (Note: Sibrel has altered his Top 10 since his page was originally created. If you read his list today, it will be different from that list that I reviewed in 2001.)



Apollo 9 EVA



Apollo 9 EVA



Apollo 16
Earth from deep
space.

The images above help illustrate the fallacy of Bart Sibrel's claim that the astronauts "faked" TV shots of a "round" Earth through the "round" hatch window of the Apollo Command Module while in low Earth orbit. Read on to learn why these images support the truth. (Click on images to enlarge)

[NEXT](#)



The Apollo Hoax Conspiracy : Part 2

(Author's note: This web page is somewhat of a hodgepodge. It is comprised of various articles and excerpts from the past couple of years. I regret that I have not had enough time to do a good job of editing and organizing the content. Still, I think you will find all that you need to counter the absurd Apollo hoax claims if you persist. The facts are here.)

HOT TOPICS!

[Moon Hoax guest on the Art Bell Show](#)

[What about that "no stars" in the sky claim made by Sibrel and others?](#)

[Wet sand on the moon?](#)

[Kooky Cutter](#)

[Bart Sibrel Update- The Buzz Aldrin Punch](#)

"The way to belief is short and easy, the way to knowledge is long and hard"- Ernst Stuhlinger

"Critical thinking is careful and deliberate determination of whether to accept, reject, or suspend judgment."-Moore and Parker, 1994.

" Critical thinking skills: understanding the meaning of a statement, judging ambiguity, judging whether an inductive conclusion is warranted, and judging whether statements made by authorities are acceptable." -Smith, 1990.

From Merriam-Webster: propaganda (pro-pa-gan-da, Pronunciation: "prä-p&-'gan-d&, "prO-

Function: noun

1 : the spreading of ideas, information, or rumor for the purpose of helping or injuring an institution, a cause, or a person

2 : ideas, facts, or allegations spread deliberately to further one's cause or to damage an opposing cause; also : a public action having such an effect

PREFACE: The inclusion of the statements about critical thinking given above are both pertinent and significant to the topic of "moon hoax conspiracies". This series of web pages contains an extensive composite of individual answers and explanations to the ludicrous and invalid accusations made by individuals who are "peddling" the bizarre belief that nobody has ever been to the moon.

I had my first face-to-face encounter with "hoax advocate", Bart Winfield Sibrel at a meeting in Huntsville, Alabama on Saturday, March 24, 2001. Sibrel is the creator of the television "documentary" called A FUNNY THING HAPPENED ON THE WAY TO THE MOON. (AFTHOTWTTM) This documentary largely rehashes several old conspiracy Apollo moon hoax claims that cannot pass the test of critical analysis. A FUNNY THING also presents so-called video "evidence" that also fails the test of critical analysis. Unfortunately, viewing Bart's "evidence" comes at a monetary cost. You will have to purchase Bart's copyrighted video to view his "exclusive evidence". I think most of you can figure this marketing scheme out by yourselves.

It does not require extensive analysis or spot some glaring flaws in Sibrel's DVD and VHS video "documentary" (I use the term documentary loosely in this case) . To begin with, A FUNNY THING HAPPENED ON THE WAY TO THE MOON is packaged in a deceptive wrapper. Just below the title the cover of the video is the following statement: "INCLUDES NEVER BEFORE SEEN FOOTAGE OF NASA STAGING PART OF THE APOLLO 11 MISSION". A FUNNY THING HAPPENED ON THE WAY TO THE MOON does not live up to that claim by any measure. It does not contain a single frame of "never before seen footage". The Apollo 11 broadcast shown in Sibrel's movie has never been classified. In fact, it was broadcast live to the entire planet back in 1969 and that "footage" has been shown in several previously released historical documentaries about the historic Apollo 11 mission. If you have watched many Apollo documentaries, you have seen this footage before.

The cover of AFTHOTWTTM also attempts to deceive by using a photo taken from an old Hollywood science fiction movie set. The text on the cover does not identify that that photo for what it is. This shot is taken from the set of CAPRICORN ONE, an old Hollywood feature film.. An astute observer can quickly identify items in this snapshot that don't match up with genuine Apollo lunar surface photos. Most obvious is the fact that the MESA (Modular Equipment Storage Area) is not deployed in this cover photo. If the MESA was deployed, it would be visibly jutting below the American flag in that shot. Another problem with this photos is that the "astronauts" are wearing the wrong color and type of Apollo EVA gloves and boots. The unusually dense cluster of large rocks around the base of the lunar module don't match up with any Apollo landing either. In fact, those small boulders look more like Martian terrain. In fact, the

movie, CAPRICORN ONE was a science fiction movie about a fake Mars landing. The producers of Capricorn One probably took advantage of existing Apollo movie props to save a few dollars in production costs and to give a hint of authenticity to that movie.

Note that Sibrel and company have "squeezed" this CAPRICORN ONE scene in the horizontal aspect in order to fit the movie set lighting into the right edge of the photo. That squeezing gives the "prop" Lunar Module an exaggerated "thinness" and distorts the details somewhat, but it is still very easy to see that this LM does not look like any of the LM vehicles in actual Apollo photos. All one has to do is look on the back of the AFTHOTWTTM box and you will see three genuine Apollo photos that show what real Apollo spacesuits and real Lunar Modules look like.

Speaking of the three small photos on the back of the cover. The questions asked in the captions underneath those photos are quite easy to answer. Just keep reading this page.

The crucial point of Sibrel's hoax claims is that the astronauts of Apollo never left low Earth orbit and that they used a camera trick to make viewers think that they were seeing a round or spherical earth on their TV screens. In fact, that crescent cut-out mask or "template" claim is the entire basis of Sibrel's "unseen footage" claims. Fortunately, Sibrel doesn't know what he is talking about and it is easy to prove his ignorance. The narrative of this documentary misidentifies the edge one the CM windows as the silhouette of an arm moving into the field of view. If you want to see the images that completely "blow away" Sibrel's goofy template to give the illusion of a distant earth in the Apollo TV transmissions" from the Apollo spacecraft, click [HERE](#).

Three Quick Reasons Why Bart Sibrel's and other Moon Hoax Allegations Are Invalid

1- None of the Apollo hoax claims are valid or legitimate. The complete historical record of Apollo is open to all investigators. There is no indication of a conspiracy. None of the official historical documents, photos or video records have been altered or tampered with. Those "previously undiscovered" videos that Bart Sibrel's claims as "proof that Apollo never went to the moon" have been freely available to the public since 1969! In fact, they were aired LIVE in 1969.

Ultimately, there is nothing to hide. Hundreds of thousands of people worked on the Apollo program. Most of those people went to work every day in buildings or facilities built by Apollo dollars. NASA spent its Apollo budget on the moon exploration program, not on some mysterious and vast cover-up. Remember, not a single dollar from the NASA budget ever actually went into space. That money remained right here on Earth where it circulated through the economy. The vast majority of Apollo era "space expenditures" went into payroll expenses. Cities, such as Houston, Texas and Huntsville, Alabama were essentially built by those space salary dollars as NASA employees and contractor employees bought homes, automobiles, groceries, clothing and all of the those things that characterize the American way of life. NASA also built hundreds of large buildings, laboratories, testing and launch facilities for the army of engineers, scientists and support staff who worked together to win the "Space Race" for America.

The moon hoaxers sometimes claim that most of the NASA budget was diverted to massive and expensive "secret programs" and that is why Apollo had to be faked. That argument just does not wash. Although the cost of Apollo seems huge at first glance, the annual NASA budget was never more than several percent of the massive federal budget total. Despite historic exaggerations of the relatively small NASA budget so often publicized by space exploration critics in the media, NASA has always been "small fry" in comparison to the Pentagon, social welfare programs and other massive governmental programs. If someone in government wanted to hide mis-spending, the NASA budget was far too small and too well documented in comparison to other federal agency budgets where hiding a billion or two every year would be much easier. If you want to hide a very large amount of money for a secret project, go see the Pentagon, not NASA. The Pentagon is famous for their "funny bookkeeping". (NASA appropriations peaked for a single year at 5.7% of the federal budget in 1966. The trend has been decline ever since. Today, the NASA budget is well below 1% of the national budget.)

2- The Apollo hoax proponents generally have substantial "credibility" issues. All of the major conspiracy proponents are either "out to make a buck" or they have other issues with federal authority that make them prone to uncritical acceptance of many outrageous anti-US allegations. Although it is better to attack the "argument" than to attack the character of the person making an argument, a thorough look into the background and qualifications of many of these moon hoax advocates is very revealing. So called "ad hominem" attacks are not the legitimate way to address specific points in an argument but knowing specific background information about the hoax advocates can assist the search for an underlying motive and in establishing the frame of mind from which these people operate.

3- The Apollo hoax proponents are basically ignorant. The conspiracy proponents consistently misinterpret the Apollo mission documentation and subsequently invent their own explanations to explain what they observe. This is probably due to a combination of:

a. Inadequate mastery of the field of space exploration and history. Sibrel is still at novice in these areas of knowledge although I have seen signs that he is making an effort to catch up. It is initially easier to fool a less "space" educated audience, but Sibrel ran into the hard, rocky shore of reality when I debated him.

b. Inadequate professional or academic training to properly evaluate what they claim to have examined. Sibrel and some others occasionally put forth the notion that a lunar landing program was just too complex for scientists and engineers to handle. Nothing could be further from the truth. Although, the Saturn moon rocket was HUGE and the lunar landing requirements were extensive and rigorous, the actual scientific-engineering requirements for the moon were fairly straightforward even in 1969. Our knowledge of the laws of physics in 1969 as well as the expertise in essential engineering principles required for a journey to the moon were more than adequate for the task of a moon landing program. Apollo was gargantuan in size and cost, but it was not nearly as challenging as was the extremely challenging Manhattan Project. The Manhattan Project pushed human knowledge of theoretical physics to the limit. Apollo was really a natural extension and progression of the fields of aviation engineering, materials engineering, environmental technology, communications technology and rocketry.

The current crop of Apollo conspiracy theorists are just taking advantage of the of the general public's faded memories of space history and a sad dearth of elementary space science awareness in the general populace. The charges that they level toward NASA and the astronauts are nothing but lies. Given that the moon hoaxers are not certifiably in need of psychiatric attention, one has to conclude that are knowingly lying in order to protect their emotional and financial investment in the conspiracy "industry" that finances their anti-history campaign through the sale of videos and books. The Taliban in Afghanistan made a similar effort to eradicate Afghan history when they used explosives to destroy ancient Buddhist monuments in that country. The moon hoaxers have similar goals as they seek to erase one of humanity's crowning achievements. However, the moon hoax leaders are using "explosive" verbal and written charges to rally ignorant followers around their flag of deception.

Hang on to your wallet!

Use your head and save your cash.

"Caveat emptor" is a Latin phrase that translates to English as "buyer beware". This crucial, tried and true consumer advice also applies to television viewers,

readers and any audience that is confronted by a presenter who is selling a particular point of view. A number of skillful liars have managed to "sell the Brooklyn Bridge" and other landmarks to naive buyers numerous times over the years. There is substantial profit in peddling lies and deceptions to members of the general populace. Take a look at the proliferation of deceptive "wacko" web sites and bizarre tabloid magazines available in the open market. How do these charlatans and cheats profit from such glaringly defective schemes? Why are we so willing to invest our time and money in such outrageous schemes and crazy spiels? What is the root cause of our gullibility? I believe the ultimate answer lies in how we use (or fail to properly use) that marvelous computer that floats between our ears.

History also offers a painful lesson or two about the willingness of large numbers of people within a specific population group to accept wild tales and fabricated stories as factual accounts. Human beings have a special affinity for fables. My favorite historical example of a "hoax wildfire" occurred in the early days of broadcasting. Orson Welles skyrocketed to global notoriety when he unwittingly perpetrated a Halloween hoax back in 1938 when his dramatic rendition of HG Wells "WAR OF THE WORLDS" was taken seriously by thousands of uncritical radio listeners. The WAR OF THE WORLDS broadcast caused a nationwide panic in the United States as thousands of gullible radio listeners urgently prepared for the "battle for earth". Some people were convinced that the Mars invasion was genuine because they "heard it on the radio". Otherwise rational people "grabbed their guns" and went hunting for Martians whilst others knelt in prayer to God, pleading for divine intervention to save humanity from the cosmic invaders. The next morning, most of those red-faced hoax believers had to return to the daily normalcy of their lives with a hard-earned lesson about their own gullibility. At the same moment in history, Adolph Hitler was able to sustain his terrible and intentional conspiracy hoax on his Nazi followers in Germany. It takes a certain degree of artistic creativity to sell great "science fiction" as reality. Some of our present-day hoaxers are very creative individuals who could go very far in the world of Hollywood or literary fiction. In the year 2002, it is still as easy to fool a certain segment of society.

The astounding persistence of the various "Moon Hoax" peddlers over the years since Apollo is at least partially attributable to forgotten lessons in logical reasoning or deficiencies in the formative educational experience of the victims who fall prey to the deception, half-truths and misconceptions characteristic of the wild claims made by the hoax sellers. The human tendency to lend legitimacy to the wild claims and illusions of charlatans, crackpots and hucksters is especially evident during our childhood years. I recall the genuine fright that caused an entire crowd of kids to bolt when a carnival illusionist said the "magic words" and a woman in a cage appeared to change into a gorilla before the eyes of all. It was an excellent illusion that defied explanation unless one had the opportunity and ability to scrutinize the illusion closely. An almost innate desire to believe in this fantastic illusion created genuine fear in a significant percentage of that group of youngsters. Apparently, some of us never lose the enthusiasm for believing in the fantastic illusions of these skillful mechanics of "smoke and mirrors" as we age.

Is there a "truth detector" that we can use to identify false claims made by seemingly convincing people? Most children will either naturally or through schooling, eventually develop something called "critical thinking skills" that help them discern truth from lies and deception. Critical thinking skills are an easily acquired asset that can serve one well for an entire lifetime. The circumstance of an adult who must face everyday life without well developed thinking skills is very tragic. A person who does not possess critical thinking skills is the prime target for a wide variety of exploitative entrepreneurs. Making the effort to acquire the individual skills to objectively listen to and then logically analyze statements is an action that can quickly improve your overall quality of life. For example, a conscientious and skillful listener or reader can easily pick out the faulty logic heard in the racist rants of hate-mongers or politicians who artfully "spin" their words in a manner intended to deceive. I encourage every individual who visits this page to learn more about critical thinking skills. A well developed mind is the best self-defense tool a person can own. Here are a couple of web sites to help you improve the power of your mind! (and that's no

illusion!)

[Mission Critical](#)

[Longview Community College](#)

[A Short Course](#)

[For Teachers](#)

[My original response to Sibrel's Moon Hoax claim.](#)

(See also: [LUNAR LUNACY!](#) Commentary as published in the Birmingham News!)

The plain truth about Sibrel's "Recently uncovered mislabeled, unedited behind-the-scenes video footage"

NOTE: In the interest of fairness to Bart Sibrel I must say that it was very difficult for me to determine if Mr. Sibrel was genuinely sincere in his conspiracy beliefs or if he was merely capitalizing on an opportunity to make lots of money by peddling more Apollo conspiracy hokum to the public. Perhaps I may have been a bit harsh sounding in some of my comments about Mr. Sibrel and his motives in my previous statements, but I also firmly stand by my argument that a journalist or producer should check all of the facts and historical documentation prior to making such stunning allegations. As it turns out, Mr. Sibrel's moon hoax claims are not the only things questionable in this case. He is not the big time, "former NBC journalist" that he appears to be when you read through his credentials. Sibrel was in fact an hourly paid weekend cameraman/editor for a local NBC affiliate in Nashville. The unfortunate circumstances under which he lost that particular job are enlightening to those of us familiar with the story. People who claim to be Bart's former and present friends and associates also have passed on further information to me that, from my point of view at least, undermines the credibility of his claims and position. Although we should always, "consider the source" when we hear a bombastic claim, it is also necessary to objectively examine even the most outrageous claims and charges. It is easier to attack the credibility of individuals than it is to perform earnest fact checking and research. I do not relish attacking the character of any human being just because I disagree with what they are saying. The object of my campaign against the deceptive hoax lies that have been told about Apollo is "truth". The truth will outlive the lies even if I do not succeed in my individual debunking effort here. My true purpose is to attack the lies and not to attack or punish the individuals who have either created the lies or those who have fallen for the moon hoax scam.

If Mr. Sibrel is not guilty of intentionally and purposefully deceiving the public, then he is definitely at least guilty of doing incomplete work. His conspiracy claims are dead-wrong, but that fact does not mean that he is necessarily insincere in his convictions. He appeared to be very sincere and concerned, but I did not really have much of an opportunity to get to know him personally. I fear that something crucial is missing in the educational or developmental background

of many of these otherwise bright people who advocate or "buy into" the gross fallacies of this moon hoax conspiracy. In their minds, it seems that they have convicted NASA of being "guilty by association" with the vast federal bureaucracy of the United States government. I am sure that the U.S. government is probably guilty of many uncovered, covert activities that are contradictory to the ideals of the United States Constitution, but these particular allegations directed toward the Apollo program and NASA in this particular case are both absurd and wrong.

An acquaintance of Apollo hoax proponent Bart Sibrel recently contacted me and offered the following comments:

"One day I was ...with two of my friends who also know Bart (the four of us attend the same church in Nashville, TN) and they started telling me about his video, and that they had been convinced by it. I refuted some of the arguments from past reading on the matter (no stars, etc.), but I was unprepared for some of the them and told my friends I'd research the matter. Your web page and some others were useful in clearing up the matter to my satisfaction. The skeptics (of Apollo) generally fall in two categories: hucksters looking to capitalize off controversy, and misguided zealots. Bart's a member of the second group. He really believes the conspiracy theories... The fact that Bart charges for his video is of no consequence. I'm sure he wants to be paid for his work, and needs to make a living like the rest of us."

The facts expressed on this page are genuine, but the opinions are strictly mine. Please draw your own conclusions about Mr. Sibrel's motivations after examining this web page and the other web pages concerning his documentary.

The Apollo 11 archive tape in question is a collection of excerpts from the Apollo 11 "live" TV broadcasts from space. The particular sequences that Sibrel claims are "proof" are nothing more than the views of the earth taken out of the spacecraft windows after the astronauts have pulled the shades down on the other windows in order to block the reflected and direct sunlight that otherwise caused glaring reflections on the window used by the astronaut pointing the TV camera at the earth. It was also necessary to darken the inside of the spacecraft in order to have a better view of the earth. For comparison, try looking out of your living room window at night when the room is brightly lit. You can't see outside very well unless you dim the lights. If it is relatively dark on the other side of an observers window, the viewing from the observer's side will always be poor.

The entire scene in question also plays out in the darkened Command Module, a fact which Sibrel takes advantage of as he ignorantly "interprets" the scene for the viewer. It is difficult to see and interpret what the crew is actually doing unless you are quite familiar with the layout of the Apollo spacecraft. That fact makes it easy for Sibrel to fabricate a fictitious account of what is actually happening in the video.

Al though he sometimes sounds confused about his own claims, Sibrel argues that a template or cutout was actually placed in front of the small, Apollo Command Module hatch window in order to create the illusion that the spacecraft was looking back at the "crescent" earth from great distances rather than from low earth orbit where the earth would be filling the entire window view. In other words, Sibrel is telling us that they were pointing the camera through the spacecraft hatch that is partially blocked by a piece of cardboard or some other flat material in order to create the illusion of a small, blue and white crescent globe. Sibrel also contends that different sized and shaped templates were used in order to make the earth appear at different distances and phases. If the Apollo capsule was actually in a low-earth orbit as Sibrel claims, the observed cloud patterns would be whizzing by the screen at a very observable clip rather than remaining relatively fixed as we see in the video. You can see this for yourself by watching the "EARTH VIEWS" video from NASA-TV or by standing in your backyard and observing how rapidly low-earth orbit satellite cross over you head. (NASA publishes local ISS and Space Shuttle sighting information on their web site.)

This odd "template" conclusion by Sibrel is purest fantasy and it could only be concocted by someone who possesses very little knowledge of real spaceflight. That same knowledge deficit is illustrated in all of the claims made by every moon hoax advocate. I wish that I could legally show excerpts here from this copyrighted "documentary" that immediately reveal the obvious flaws in Sibrel's observations and conclusions. I can show you this:



This diagram helps invalidate Sibrel's "exclusive footage" claim. As you will learn, Sibrel was obviously ignorant of the actual internal configuration of Apollo Command Module cabin windows when made his "template" claim.

Analysis of the Apollo video in question clearly indicates that the view of Earth shown was not shot through the circular hatch window shown in the diagram above.

The video that Sibrel cites actually shows the earth as it is viewed through the left rendezvous window. That window is not "round".

(image NASA)



Apollo hatch with round inner window pane as it would be viewed from the interior of the spacecraft. Sibrel claims that the round window was used as a template, in addition to other flat templates to create the illusion of a distant earth. Sibrel fantasizes about a crescent shaped piece of cardboard was used to create the illusion of Earth "phases".

The geometry and the physical dimensions of the Apollo CM do not support Sibrel's claim that the camera was "angled" toward the window in order to portray a crescent Earth. Sibrel claims that he sees an astronaut's arm blocking the window view in the Apollo video. The straight sides of the rhombus outer hatch window become visually prominent when a camera looks at the window from the obtuse angles required to support Sibrel's claim. Those straight sides in the outer hatch window combined with the small internal dimensions of the CM negate Sibrel's argument. Click on the hatch image above and you can see how the edge of the outer window shows as a straight edge surface (examine the bottom of the circular window) from even a slightly less than 90 degree angle.

(Image courtesy of Kipp Teague)



The Apollo CM is far too small for the astronauts to back away far enough away from the hatch so that the apparent diameter of the round hatch window is as small as it would need to be to support Sibrel's claim. The Apollo 11 TV camera was obviously pointed at a distant Earth. It is impossible to pull the camera back as far as would be required to support Sibrel's claims. The CM has an external height of 10 ft 7 in, and a maximum diameter of 12 ft 10 in. The actual crew compartment is even smaller. That obviously is an inadequate space for Sibrel's alleged "camera tricks".

The silhouette of astronaut Collins passes across the hatch window in Sibrel's footage. Occasionally the side of the window is seen partially occluding the view of Earth That's all! No tricky "templates" were involved. The darkened crew cabin in the footage allowed Sibrel to very liberally "interpret" what unwitting viewers are "seeing" in the cabin. (image McDade)



Click on the image above to view an actual Apollo 12 mission photo of the inner CM hatch window. The "straight edge" of the outer rhombus shaped window is readily apparent even at the slightly less perpendicular angle from the hatch. Look at the right of the hatch window and you will see the outer window frame protruding into view.

The brilliant glare and reflections in this image also illustrate why the crew cabin had to be darkened in order to obtain clear images of the distant earth.

That protrusion would be greater than this if one attempted to shoot through the window at an angle suggested by Sibrel's claims. Irrespective of angle in question, the small dimensions of the CM crew compartment physically prevent the kind of "camera trick" that Sibrel suggest. (image NASA)

It does not require deep thought or video clips to see the fallacy in Sibrel's round window and "template" accusation. A spacecraft in low-earth orbit is traveling at inertial velocity--- about 17,000 or 18,000 miles per-hour, depending upon the exact altitude of the spacecraft. At such speeds, the cloud and ground formations passing by the spacecraft window are moving by at a fairly quick pace as an astronaut looks down at the earth through the window. Again, watch the Earth Views from the space shuttle on NASA-TV and you will observe this motion along the ground-track. You can also easily see this fairly rapid ground-track motion from a spacecraft in low-earth orbit with the naked eye. If an astronaut is looking through a telescope or the zoom lens of a camera, the movement along the ground-track is even more obvious since magnification of the ground track image would appear to magnify the apparent velocity. To see this effect, stand about fifty yard from a moving train and observe the speed of the train with your naked eye. The look at the train through an 8 or 10 power pair of binoculars and observe how much faster the train appears to be moving. The videotape of the Apollo 11 earth video shown in Sibrel's documentary shows no apparent movement along the ground track. Bart's cleverly fabricated scheme will simply not work. the rapidly changing view of the ground track would betray the illusion.

The cloud patterns and land forms shown in the video do not change at all over the several minute duration of the sequences used by Sibrel. This is obviously because the spacecraft is indeed far enough away from earth to view the planet as a globe. The predominant motion of the earth from that distance is not ground-track motion, it's the motion of the 24-hour rotational period which is not discernable by just sitting and watching. The earth rotates about it's axis at about 15 degrees per hour. The "new evidence" from Sibrel's is therefore bogus.

In addition, the four Apollo images shown below indicate that using a template or the round spacecraft window would not provide an accurate

representation of the earth's cloud patterns as seen from thousands of miles in space. The Apollo videos of earth from deep space also clearly show the polar ice cap and the typical, long linear cloud "bands" that frequently occur in the circulation regions above and below the equator. The curvature of the earth is apparent in the shape of the cloud patterns in all of the Apollo video, 16mm motion pictures and stills. Neil Armstrong actually describes these earthly features from space during a TV broadcast sequence that does not appear in Sibrel's clips. The shuttle or ISS astronauts could point a camera at earth through a round template and destroy Sibrel's claim about a template instantly. If you know a shuttle astronaut, you might want to ask them to do this for us.

This set of images clearly illustrates the flaw in Sibrel's "template" claims even if the camera were pointed out of the circular hatch window.



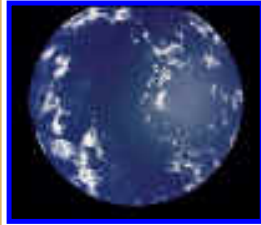
Clouds look like this from low earth orbit. (Apollo 17)



If I place a circular template over the low-earth orbit image at the left, the image that we see looks nothing like the image of earth (right) taken from deep space.



Earth, seen as a globe from Apollo 13. Click on this image to view a spectacular enlargement. Using a crescent cutout "template" from low earth orbit cannot compare with this beautiful image. The earth looks like a globe from great distance even at "half" phase.



Compare the Apollo 13 image at the left to this image taken from the International Space Station above. The image above was taken through a round window from inside the ISS in 2001. This obviously does not look like a globular earth with characteristic curving cloud patterns.



The appearance of the earth's cloud patterns begins to change drastically while climbing to higher trans-lunar type altitudes. (Apollo 17)



Earth as viewed from lunar orbit. About 225,000 miles out here. (Apollo 11)

Click [HERE](#) to see an actual picture of the earth's surface taken through one of the round windows of the International Space Station. Thanks to Calli Arcale for directing me to this beautiful image of the earth photographed through a "round template" from low earth orbit. This picture is catalogued as ISS003-319-035 (20 November 2001) --- A partial Earth with clouds, framed by a circular window on the International Space Station (ISS), was photographed by one of the crew members on the orbital outpost. Note the large reflection of the sun in the ocean waters and the comparative randomness of the cloud patterns as compared to images taken from lunar distance.

PROPAGANDISTIC METHODS IN AFTHOTWTTM

The infamous "commie-hunting" U.S. Senator Joe McCarthy, Alabama Governor George Wallace, Adolph Hitler and countless other "conspiracy theorists" down through the ages have all exploited the power of human emotions to overcome logic and truth. These successful rabble-rousers all used strong words and innuendo when they pointed their accusing fingers at alleged "conspirators". This same emotive and propagandistic approach is a common ploy used by

the proponents and marketers of popular conspiracy theory videos and books. Why does A FUNNY THING show us the infamous and disturbing Zapruder film of the JFK assassination? Why is the viewer subjected to somber violin music and film clips that show Vietnam combat, the African famine, and police assaulting protestors? Is the viewer supposed to believe that all of these atrocities are part of a decades long grand scheme of oppression that includes faking a trip to the moon? WHOA! None of those "violin strings" clips have any logical connection the Apollo program. Most of the 750,000 or so people who worked on Apollo were non-government employees who worked for large and small companies and universities. Perhaps Bart wants us to believe that NASA is guilty because it is a federal agency and therefore inherently evil. Other than this effort to prove guilt by association, all of this unrelated conspiracy material is apparently presented as an unabashed attempt to overwhelm logic and reasoning with emotion and fear. You cannot find the truth by using "guilt by association" as a determinant. Guilt by association may be adequate for an irrational, stupid and angry lynch mob, but it is inadequate for legitimate determination of truth.

Bart stridently stated that, "Neil Armstrong is a liar!", when I tried to describe Neil's well known verbal hesitancy and reserved personality. Neil Armstrong is a very modest man who served in combat for his country during the Korean Conflict. Neil has never accepted a dollar to use his status as a great explorer to sell, Buick's, shampoo, or exercise equipment. He is one of the most moral men I have ever met. Bart's accusation that Neil Armstrong is the kind of man who would betray his country and the entire world enraged me more than any of the other outrageous charges that he leveled. Basically, all I can say is that Bart is a talented and capable video director and producer, but he did not possess any of the below as of the time of our meeting:

- (1) An in-depth knowledge of the Apollo spacecraft.**
- (2) An in-depth knowledge of the Apollo program and many of the key people in the program.**
- (3) An in-depth knowledge of the lunar environment and the behavior of materials and objects while they are in that environment.**
- (4) An in-depth knowledge of the standardized practices and procedures used by the Apollo crews and mission controllers during the spacecraft-to-earth telecasts.**
- (5) An awareness of certain documented and recorded pertinent statements that were made during the crew debriefings and in official Apollo documentation more than thirty years ago that all serve to undermine his "hoax" contentions.**
- (6) Substantial professional/academic credentials that one might expect from a person who makes such bombastic charges.**

You can be sure that Bart and other conspiracy theorists will revive these moon hoax accusations now and then. We can anticipate that they will always attempt to add new and imaginative accusations to the long list of already discredited charges on the books. The marketing strategy employed by the hoax vendors obviously does not include a plausibility requirement for the accusations that they peddle to gullible consumers. Caveat emptor.

SO, IS IT ANY WONDER THAT APOLLO 11 MOONWALKER BUZZ ALDRIN "SHUT THE DOOR" IN BART'S FACE?

Buzz Aldrin, in an appearance on C-SPAN (US Cable channel), voiced his own opinion that these hoax conspiracy proponents are just out to make money from the uninformed and gullible.



Most educated, intelligent or sane people who possess good-old "common sense" are insulted by presentations that are based on faulty logic, incomplete investigation or deceptive tactics. However, a small "core" group of people always seem willing to buy into the claims of those who claim that the earth is flat or that alien civilizations control our government leaders. This core group of "believers" provides the financial justification for individuals and corporations to produce conspiracy materials for consumption. A demand is always satisfied by a supply in our free-market, consumer oriented system. The "dumb" shall always be with us.

Why are some of us in society so gullible? Are some people just not very bright? It may be that too many hours of viewing "garbage" television and a lack of daily intellectual challenge has caused many otherwise "smart" adults to forget one of the basic lessons taught in grade school: The **SCIENTIFIC METHOD**:

The most effective method for determining truth and validity of a proposition is the *scientific method*. Here are the basic steps in the method.

- 1. Make observations relevant to the issue involved. Research, read, investigate and keep notes.**
- 2. Formulate a *hypothesis*, that is consistent with what you have observed and studied.**
- 3. Use this hypothesis to make predictions.**
- 4. Test the predictions through experimentation or further observations and adjust the hypothesis as you learn from the results.**
- 5. Repeat steps 3 and 4 until you have eliminated the discrepancies between the theory and experiment and/or the observations.**

When the experiment provides consistent results, then you can graduate your hypothesis to the status of theory. The theory is a proposition or group of propositions which establishes a logically consistent idea(s) that can be repeatedly demonstrated or performed. Basically, a theory about some observed

phenomena, process or class of ideas is the foundational concept upon which observations can be explained and predictions made.

The Apollo hoax pronouncements unanimously claim to have done "research", but it is crystal clear that they have never performed legitimate, controlled experiments to test the various aspects of lighting, shadows, dust behavior, rocket exhaust plume-surface material interaction phenomena that they claim are indicative of fakery. All that they can offer is "very" loose and uninformed interpretations of their various exhibits, neurotic/paranoid fantasy, phony science, misquotes, out of context quotes, charismatic appeal, magic, imagined UFO conspiracies, claims of the paranormal, bad math, and cheesy web pages.

One example of their bad science is the claim that the photos made on the moon do not show any stars in the black sky above the lunar surface. The reason that you do not see stars in the sky of any of the "moonwalk" photos is the same reason that you do not see stars in the night sky photos that you make on earth with your point-and-click camera--exposure time. The shutter speed on the Apollo Hasselblad cameras was on the order of 1/250th of a second. It would have required about a three minute long exposure to capture enough starlight for stars to show up on the film used in the Apollo cameras. But then again, the astronauts did not travel all of the way to the moon for the purpose of taking hand held pictures of the stars. They were there to document and collect samples and data about the moon.

The Apollo conspiracy sellers have a tendency to conveniently bypass all of the steps in the *scientific method* by leaping over them to a *conclusion*. Therefore, their "theories" are neither truthful nor scientifically valid. The "bones of contention" picked by the hoax proponents to support their conspiracy theories are very cleverly chosen to present an illusion of a solidly constructed theory. They rely on a the viewers "common sense" knowledge of everyday earthly paradigms to come in conflict with that which is observed in the Apollo films, photos and video. The moon and the domain of "outer space" is an alien environment that would be totally unfamiliar to someone who has never been there. The behavior of materials can be quite different in a vacuum environment and in one-sixth gravity field of the moon or the microgravity of orbital flight. Earthly paradigms and intuitive expectations do not always apply there. All of these hoax opponents share a common set of misconceptions and misunderstandings that are quickly revealed when they try to sell their "profitable" (as in \$\$\$) hoaxes to truly knowledgeable and experienced space professionals, historians, legitimate university trained scientists, or even a simple space advocate like me.

NEIL ARMSTRONG RESPONDS TO SIBREL'S HOAX ALLEGATIONS

Neil Armstrong's office released a statement* on April 9, 2001 stating that while he "accepts that individuals may believe whatever they wish", he was "substantially offended by the program's implication that his fellow Apollo crewmen were possible accomplices in the murder of his very good friends Grissom, White and Chaffee. He has indicated his displeasure to FOX." The statement also expressed the hope that "NASA responds to this matter in a more forceful manner than they did in the FOX broadcast" where Sibrel made his allegations.

*This statement is quoted from a letter sent to me by his office.

Feel free to use any of the arguments given here when you encounter an ignorant person who has been convinced by FOX television that NASA is a fraud.

[Lessons Learned: A Commentary](#)

[Consider this...reclaim your brain and intellectual independence](#)

[What about that "no stars" in the sky claim made by Sibrel and others?](#)

Do not feel too ashamed if you saw a moon hoax TV show and began to question the historical facts of Apollo. The producers of these hoax shows possess excellent presentation skills and they are quite charismatic. They also have paid access to the finest video and print production facilities on earth. I can see how easy it would be to be fooled by Bart Sibrel if one did not possess certain level of space science or space history knowledge. I fear that some of our schools need some help with delivering this valuable knowledge to students since traditional history and science books usually just "skim the surface" of space topics. An adequate level of knowledge paired with the critical thinking skills required to help put that acquired knowledge to use is the best way to equip an individual with a "truth detector" that can help any person successfully distinguish reality from deception.

THE LEMON STORY IN A LEMON OF A DOCUMENTARY

Summary: The hoax documentary producers "fake" more photos than NASA ever thought about creating. Notably, the documentary twists the real story about Gus Grissom's dissatisfaction with a ground training simulator. The documentary attempts to give the impression that Grissom was extremely dissatisfied with the quality of the Apollo spacecraft. In reality, Grissom probably had "over-confidence" in the Apollo spacecraft he was slated to fly on. Grissom, a former military test pilot, would never have taken what he would have viewed as unnecessary and avoidable safety risks. The AFTHOTWTTM documentary portrays a scene with lemon stuck on a coat-hanger and hung from the hatch of the [Mercury Procedures Trainer](#). A lemon was ACTUALLY hung on an **Apollo CM simulator** by Gus Grissom. Grissom NEVER hung a lemon on the spacecraft that he was slated to fly in.

Detailed examination of Sibrel' hoax claims reveals a pattern of inefficacy that is a common factor in all of the Apollo hoax advocate presentations. I note that in AFTHOTWTTM, prominent claims are made about Gus Grissom having "hung a lemon" on the Apollo Command Module just prior to the 1967 LC-34 fire.

This prejudice inducing claim is also made in other hoax presentations that I have seen. According to Harrison Storms' account of this incident, Gus never actually hung a lemon on the CM. Here is the true story behind the lemon: Nobody ever hung a lemon of the Apollo Command Module or any piece of Apollo flight hardware. Gus was quite frustrated by the discrepancies between the two Apollo CM mission training simulators (SIMs) respectively located in Houston and Kennedy Space Center. North American was unable to keep the simulator hardware and software updates current on the two SIMs. This meant that the SIM in Houston and the SIM at the Cape "behaved" and responded differently during similar flight simulations. A frustrated Gus brought a lemon with him from a tree in his backyard in Houston and hung it on the Cape SIM as a symbol of his feelings about North American's inability to keep things synchronized current on the SIMs. North American struggled to keep the SIMS current due to numerous the "change orders" always required when new technology is developed. Sibrel's erroneous account of the "lemon incident" is one more example of how these hoax proponents have failed to check the facts before they present their astounding allegations. This pattern of bad journalism is a prominent feature of every pro-hoax text and video. (Source: Angle of Attack: Harrison Storm & The Race to the Moon by Mike Gray, Penguin Books USA 1992)

[Why moon hoax proponents don't just go away in shameful embarrassment?](#)

THE HOAX CLAIMANTS IGNORE SCIENCE

Researchers continue to make new discoveries from the Apollo lunar samples that remain in environmentally controlled lab facilities today. The recent confirmation of the presence of ultra-rare Beryllium-10 in lunar samples is further evidence that validates the unearthy origin of those samples. The earth's atmosphere and magnetic field prevent Beryllium 10 from reaching our planet. You have to go to the moon or capture some "solar wind" in order to find Beryllium-10.

Unfortunately, Beryllium-10 will not repel the hoaxers since their “findings” are based on “belief” rather than objective methods of truth seeking. My encounter with these “true believers” in the hoax garbage was revealing. These people do not know the difference between a hypothesis and a theory. They do not understand or accept the scientific method. They base their hoax contentions entirely on their faith in those major hoax proponents that they see on TV or their own personal paranoid neuroses.

They call their moon hoax contention a theory without even understanding the definition of the word "theory". Actually, a “theory” is a statement that is “falsifiable”. *Falsifiable* means that it is possible to disprove the theory through carefully observing the results of experimentation and testing. The moon hoax is not a valid theory because it is not falsifiable. No matter what proof or evidence that you present to the hoax believers, they will react in the classic conspiracy world-view style. To begin with, I am sure that they do not trust any university or government funded researcher who has access to lunar samples. They will just claim that the scientists added the Beryllium 10 to the samples. The minds that readily accepted the moon hoax claims were obviously defective before any of us in the counter-hoax corner had an opportunity to come to the rescue. You cannot revive an already dead brain.

One might ask, "Why is the Apollo program the target of hoax claims to begin with?" All saleable hoax claims must be somewhat difficult to dispute or they will be short lived. It is very easy to claim that Apollo never went to the moon because humankind presently has no physical access to the lunar surface since we have retired the rockets and people who took us there to begin with.

Apollo 17 was the last journey to the moon back in December of 1972. According to the brilliant theoretician Ernst Stuhlinger, someone asked Wernher von Braun, “What next?” as the Cape Kennedy crowd was breaking up following the Apollo 17 launch. Dr. von Braun replied, “ Unfortunately, there are no more moons.” The first era of human lunar

exploration lasted for a mere four years- 1968-72. America quickly withdrew from the moon after barely scratching the surface of a world with a surface area larger than Africa. More “important” concerns and needs were on the political agenda of Washington politicians even before the moon landing was achieved.

The Apollo hardware was designed for a “crash” program and was therefore not exactly suitable for a sustained exploration and settlement of the moon. Every lunar mission after Apollo 11 was “bonus”. Congress and the Lyndon Johnson administration began scaling down Apollo funding in the mid-1960's. On July 20, 1969, the geopolitical "Space Race" had been won and the Soviets had already informally acquiesced by refocusing on orbiting space stations. Ironically, von Braun was perhaps the first major figure to suggest back in the 1950's it would have been wiser in the long run to start with building space stations before taking the giant leap to the moon. It seems so obvious to us now that following up the spectacular moon quest with a low-earth orbit space shuttle bored the general public into a state of chronic space apathy.

We have almost forgotten how Sputnik shocked the USA and free world into space awareness in October 1957. The cultural outlook of the west was changed by that event just as the World Trade Center massacre has changed it yet again, although in a far different way and to a far greater degree. Broad support and post-Sputnik enthusiasm for space exploration in American society did not last many years. The Vietnam conflict and Civil Rights concerns were not the kind of instant, seminal events that changed our cultural outlook overnight, but those terrible sagas did slowly drain NASA's public support away as the Soviets began to lag behind in the Race.

Perhaps the “crash” Apollo program was the worst space policy decision in the history of NASA because it was such a public relations dead end. The program was scheduled to culminate in a 1969-70 climactic space spectacular that was designed to merely demonstrate US technological potency. The Mercury, Gemini and Apollo "manned" programs borrowed their names from romantic and appealing Greek myths that were borrowed from history. The Space Shuttle was just given the plain old, utilitarian, "Space Transportation System". The magic was gone from NASA at the same time space was losing its appeal to taxpayers. Perhaps we should have named the shuttle after another ancient Greek mythological figure. Actually, it would have been nice if the shuttle had had some place to go other than just in solitary, low-orbit circles.

Most of us now look back at that romantic time of Apollo as the "Golden Years" of space exploration. Unfortunately, the hoax advocates recognize our fading memories of Apollo as opportunity to peddle lies and half-truths for the sake of fame and fortune. If they are not motivated by greed, then we must conclude that their charges are based on illogic, insanity or some form of mental deficiency. basically, their attempt to perpetrate this hoax is tantamount to an attempt to rewrite history. The fact that most people do not have fresh, clear memories of the actual events from 30-35 years ago combined with the fact that the average person has a less than adequate knowledge of space science and history all plays into the hands of hoax sellers.

It is especially difficult to counter nonsense statements when the object of those statements is as inaccessible as the moon is. We do not have access to the lunar landing sites or the equipment left behind on the moon. It does require a higher level of knowledge and experience to answer

the Apollo hoax charges for the general public since NASA acronyms and space terminology can be confusing or baffling to the average lay person. If someone makes a statement such as, "The sky outside is green." or "Oil and water don't mix.", it is quite easy to perform a truth test on those statements that the general public can grasp. We can go outside and look at the sky or we can quickly pour some oil into a pail of water and test those statements. We cannot go to the moon and duplicate the Apollo missions.

The moon is a very different and alien world where many otherwise commonplace materials and processes behave or appear very different from the way they do on earth. One example:" the lack of stars in Apollo lunar surface images. The fact that astronauts and cameras would not be able to see stars in the black lunar sky during daylight moonwalks was discussed years before the Apollo missions by scientists such as Arthur C. Clarke. The bright glare of the reflected, unfiltered sunlight lunar surface makes daylight star observation impossible. you can see this for yourself by trying to view the stars when standing under the glare of bright, artificial lighting at nighttime outdoor events. The white light of the unfiltered sun as viewed from the lunar surface is much brighter than the most powerful artificial lights you will ever see. All of the other moon hoax arguments similarly fail basic "truth tests".

When Bart Sibrel publicly stated that the Apollo Command Module internal window was not round and that the Apollo TV camera was held "right up" to the spacecraft window during the broadcast, his ignorance of the topic was clearly illustrated. Some people will believe statements made by people who appear to be authoritative or credible. The application of basic listening, reading and thinking skills quickly unmask the lies and deceptions coming from the hoax camp.

Not a single one of the moon hoax advocates have substantial professional credentials to even be loosely declared as authorities on space exploration. In fact, most of them turn out to be very sad cases when you investigate their backgrounds and credentials.

Here are some telling comments from one of the hoax advocates own consultants (Latham Adam):

I was hired by the company that invested in the video to do a "thorough" fact-checking before they released the video. They got more than they bargained for. I submitted a document with over 1,000 pages of support material which basically, in no uncertain terms, debunked almost every assertion in the video. I even offered up suggestions on how to change the text to be more questioning of certain aspects as opposed to stating assertions of fact which could be easily proven untrue. I was paid, and I went on my merry way.

They asserted in the film that the straight edge encroaching on the side of the earth in some shots was some sort of template they stuck around a larger window. The straight edge appears occasionally and they tried to pass it off as something placed on the inside of the capsule. I pointed out that it was in fact the outside edge of the window. The window from inside the capsule is circular, is rhombus shaped on the outside. If you turn sideways (while floating in a microgravity condition...duh) you might lose orientation enough to catch the outside edge of the window. Even after presenting them with diagrams and pictures and simulating the effect, they still ran with it. What a bunch of shmucks.

Another one of my favorite pet peeves from the film, was the continual assertion about not taking telescopes to the moon. I asked "how would you look through a telescope since you were wearing light-reducing visor which kept all objects about six inches from your eyes. Why would they spend money developing

shields to reduce light and then have you stick a light magnification device against it? Their response was: "yeah, but they didn't take a telescope". I pointed out from schematics of the LEM that there was in fact a telescope mounted, similar to a periscope, so that astronauts could navigate by stars, so in reality, they DID take a telescope to the moon. "But they didn't take it on their EVAs" they retorted. "Yeah," I responded, "but they couldn't look through them on their EVAs!" I tried once more stating the only place they could look through a telescope, because they could put their eye up to the lens, was when they inside the LEM, so therefore, the telescope was in the only place they could actually use it." They paused for a while and concluded, "well...since they didn't take it on the EVA we'll keep it."

UPDATE: The lack of concrete evidence to support these hoax claims apparently does not hinder these shameless hucksters. These individuals rely on a bevy of misinterpretations, ignorant observations and "smoke and mirrors" to entice prospective followers. For example, moon hoax advocate Bart Sibrel issued a claim that NASA used an unmanned satellite to mimic the Apollo 11 spacecraft back in July 1969. Sibrel said, "Another overlooked intriguing fact is that NASA launched the TETR-A satellite just months before the first lunar mission. The proclaimed purpose was to simulate transmissions coming from the moon so that the Houston ground crews (all those employees sitting behind computer screens at Mission Control) could "rehearse" the first moon landing. In other words, though NASA claimed that the satellite crashed shortly before the first lunar mission (a misinformation lie), its real purpose was to relay voice, fuel consumption, altitude, and telemetry data as if the transmissions were coming from an Apollo spacecraft as it neared the moon. Very few NASA employees knew the truth because they believed that the computer and television data they were receiving was the genuine article. Merely a hundred or so knew what was really going on; not tens of thousands as it might first appear."

Here are the hard facts about this tiny "transponder" satellite:

Launch Date/Time: 1967-12-13

TETR-A was a very small magnetically stabilized satellite instrumented with a s-band transponder to provide training to Apollo ground stations. The instrumentation included the 9.5 watt s-band transponder, a PAM/FM/PM telemeter encoder and 100 milliwatt VHF transmitter. The spacecraft was built by Thompson Ramo Wooldridge, Inc. The orbit was lower than planned and as a result it reentered the atmosphere April 28, 1968. However, the intended mission was accomplished. MSFN worked with it in more than 600 passes and it was used in four network mission simulations.

The historical record contradicts the claims by Sibrel. TETR-A was launched more than a year and a half prior to Apollo 11, not "just months before" the first moon landing. I relayed Sibrel's claim to one member of the Apollo mission tracking team and here is his response: "We had a "Test and Training Satellite" which was for us to train on for lunar tracking. It had little more than a transponder and some housekeeping telemetry and limited life. It wasn't really needed as we had Lunar Orbiter and Surveyor spacecraft which were used for some training. The spacecraft was initially known as "TTS" but I think this conflicted with another (military?) name. So "TETR" was used."

It is also clear from the technical specifications of this little satellite, that it would not be capable of handling the combined telemetry, voice and video signals required to "fake" an Apollo mission.

Another authoritative expert, [Jay Windley](#) adds: "

"The controllers at MCC got their information from the MSFN. Regardless of what satellite station picked it up, it was relayed to MCC through other channels. The MCC simulations relied on test data sent through the ground-based portions of the MCC. There was no need to launch a satellite to simulate transmissions for Houston controllers since they wouldn't necessarily have known the signal's origin anyway, either in simulation or real life.

But the tracking people wouldn't have been fooled. They tracked the spacecraft using the Doppler shift of the signal, something you can't fake with a satellite. This was amazingly accurate work. They could detect fluctuations due to the sublimators and the waste dumps. These people used the NATURE of the signal, not its content.

Yet another completely un-testable hoax theory. When people fail to come up with any information on the alleged satellite, Sibrel will simply claim that all the information on it

was “naturally” destroyed or classified so we wouldn’t know about it.

But Sibrel’s comments make absolutely no sense to someone who knows how the MSFN operated."

Mike Dinn (MSFN participant) says:

TETR (or TTS or TATS) were earth orbiting only so could hardly play a role in a moon hoax. Orbital info is at <http://www.friends-partners.org/mwade/craft/tts.htm> The orbit was fairly high and elliptical to help in providing common view between MSFN stations so that handover procedures could be exercised. We used to train such handovers between Honeysuckle Creek (east Australia) and Carnarvon (Western Australia). However TETR 1 was only up for 4 months from Dec 1967, and by the time TETR 2 was launched (Nov 68) we would have had many hours of Apollo 7 tracking under our belts. TETR C failed and TETR D was 1971. Can't imagine what that was used for!

Proceed to Part 3 ["Why they don't just go away?"](#)

[Part 1](#)



WHY CRACKPOT HOAX CLAIMS WILL NEVER COMPLETELY DISAPPEAR

Not a single one of the "moon hoax" huckster claims made in the list above nor any of the Apollo hoax allegations found in any book, web page, video, film or other media can withstand the light of critical analysis. Does the fact that all of their accusations are nonsensical mean that the hoax proponents will recant or withdraw their conspiracy charges? No, of course not. Why not? Why do the Apollo hoax proponents refuse to accept the reality of the Apollo Lunar Exploration program? The answer to these questions lies in the current state of society and one of the oldest natural laws that govern human behavior: The market driven relationship between supply and demand. Society has always had and shall probably always have a percentage of the total human population that suffers through a lifetime haunted by delusions of demons, aliens, telepathy and "boogey men". In previous times these people were often labeled as lunatics and thrown into a cruel asylum or perhaps burned as witches. The exception to this barbaric treatment of delusional people was usually in instances where the delusional individual was wealthy or royal, in which case they were tagged as "eccentrics" and allowed to keep their freedom. Our society has become increasingly tolerant and we no longer favor such cruel practices. In fact, these unfortunate people are usually quite capable of making significant contributions to society as workers, artists, teachers and even professionals. In the 21st century, most of these people are productive wage earners with disposable income.

What is one particular thing that PEOPLE can do with a portion of their disposable income? The answer is: Purchase conspiracy videos, books, magazines, etc. that serve to reinforce their personal fears and delusions. In other words, they provide the demand curve for the hoax sellers with their profitable supply curve flow of fantastic "theories" and "secret, never seen evidence". Along the way, the hoaxers can make a few extra dollars by selling their conspiracy theories to individuals who are not afflicted by the delusional characteristics so prevalent in the target market. These bonus hoax buyers are people who are not adequately familiar with the topic in question to effectively argue with what the hoaxers present as "evidence". That problem speaks to the failings of our educational system, but that is another issue entirely, so I will leave that up to others to discuss. The laws of the market prevail once again.

Do not feel too ashamed if you saw a moon hoax TV show and began to question the historical facts of Apollo. The producers of these hoax shows possess excellent presentation skills and they are quite charismatic. They also have paid access to the finest video and print production facilities on earth. I can see how easy it would be to be fooled by Bart Sibrel if one did not possess certain level of space science or space history knowledge. I fear that some of our schools need some help with delivering this valuable knowledge to students since traditional history and science books usually just "skim the surface" of space topics. An adequate level of knowledge paired with the critical thinking skills required to help put that acquired knowledge to use is the best way to equip an individual with a "truth detector" that can help any person successfully distinguish reality from deception.

THE LEMON DECEPTION



The hoax documentary producers "fake" more photos than NASA. A lemon stuck on a coat-hanger was hung from the hatch of this [Mercury Procedures Trainer](#) by the AFTHOTWTTM producers. As you will read below, actually a lemon was purportedly hung on an **Apollo CM simulator** by Gus Grissom.

An examination of Sibrel' hoax claims reveals a pattern of inefficacy that is a common factor in all of the pro-Apollo hoax presentations. I note that in AFTHOTWTTM, prominent claims are made about Gus Grissom having "hung a lemon" on the Apollo Command Module just prior to the 1967 LC-34 fire. This prejudice inducing claim is also made in other hoax presentations that I have seen. According to Harrison Storms' account of this incident, Gus never actually hung a lemon on the CM. Here is the true story behind the lemon: Nobody ever hung a lemon on the Apollo Command Module or any piece of Apollo flight hardware. Gus was quite frustrated by the discrepancies between the two Apollo CM mission training simulators (SIMs) respectively located in Houston and Kennedy Space Center. North American was unable to keep the simulator hardware and software updates current on the two SIMs. This meant that the SIM in Houston and the SIM at the Cape "behaved" and responded differently during similar flight simulations. A frustrated Gus brought a lemon with him from a tree in his backyard in Houston and hung it on the Cape SIM as a symbol of his feelings about North American's inability to keep things synchronized current on the SIMs. North American struggled to keep the SIMS current due to numerous the "change orders" always required when new technology is developed. Sibrel's erroneous account of the "lemon incident" is one more example of how these hoax proponents have failed to check the facts before they present their astounding allegations. This pattern of bad journalism is a prominent feature of every pro-hoax text and video. (Source: Angle of Attack: Harrison Storm & The Race to the Moon by Mike Gray, Penguin Books USA 1992)

THE LLTV DECEPTION

Another blatant misrepresentation provided in AFTHOTWTTM was the use of NASA archive footage of the [LLTV](#) (Lunar Landing Training Vehicle) [crash](#) in May of 1968. The LLTV was not a Lunar Module (LM) "prototype" as claimed by this documentary. The LLTV was not built or designed by the same company that built the LM used during Apollo. In fact, this VTOL (Vertical Take-Off and Landing) vehicle was primarily powered by a conventional jet engine to give it lift for flight. It was not a pure rocket-lift vehicle as the Lunar Module was. A central General Electric CF-700-2V turbofan engine mounted vertically in a gimbal, with 4200 lb of thrust lifted the LLTV to test altitude where it was throttled back to support 5/6 of the LLTVs total weight while two 500 pound maximum thrust rocket engines were engaged to provide the rest of the required

vehicle lift thrust. This complicated arrangement allowed the LLTV pilot to experience the flight characteristics of a vehicle operating in a lunar, 1/6th gravity environment. This design complexity also made the LLTV inherently more dangerous to pilot than the LM.



LLTV In Flight

The three LLTVs that were built, provided a training tool to give the astronauts a feel for a craft that maneuvered in a fashion similar to a lunar module. The Bell Aerosystems LLTV did not have a common design, manufacturing or propulsion systems lineage with the Grumman Lunar Module used during the Apollo missions. The crash of the LLTV shown in Sibrel's documentary was the result of a bad fuel supply system for the maneuvering thrusters on the craft. Basically, that system ran out of propellants before the LLTV could be brought in for a safe landing. Neil Armstrong survived that 1968 crash when he activated the LLTV ejection seat and he continued to fly another LLTV unit as he prepared for the real moon landing. Contrary to the claims of Apollo hoax proponents, the LLTV was a stable and flyable vehicle despite the high level of piloting skills required to fly it. Subsequently, other LLTV units were used by the astronauts after that 1968 [crash](#) and the astronauts who came back from the moon recommended that future LM pilots continue to LLTVs as part of the training regimen.

CBS broadcaster Dan Rather may have contributed to Bart Sibrel's confusion about the LLTV crash date when he erroneously reported the crash date in a 1980's documentary about Apollo 11. Thousands of copies of Rather's badly researched and written documentary were and still are sold in video stores and space center gift shops around the globe. I have no doubt that erroneous information and misconceptions are often widely spread when some celebrity or "star" gives bad information "credibility" by repeating them in a public forum. Documentary producers are no less susceptible to buying into the "misstatements" of the people that that see on TV or read in newspapers and magazines. After all, they are only human and human beings are prone to lending too much credibility to stars and major media figures from the fields of news, entertainment and politics. The pursuit of truth is hard work. We should not rely on an "authority" or public figures to give us all of the facts that we need.

Consequently, you should not automatically believe everything you hear on television or movies. Reporters and producers do make mistakes and exercise "artistic license". The best way to learn about history is to read several books about a particular topic. Movies and TV are fun, but professional historians usually are usually not writing the scripts for the most entertaining productions. You can become an "expert" about some particular topic through reading numerous books, papers and other factual works. Watching one documentary about a subject may stimulate interest in a certain topic, but it cannot give the viewer a mastery of the subject matter presented. It is up to the viewer to dig for the truth.



If you have a high-speed internet connection, you might want to visit:

http://www.nrl.navy.mil/clementine/clem_collect/apollo16.html

and download the 6.6 Mb U.S. Navy [Clementine](#) satellite image of the Apollo 17 landing site.

Clementine Image of [Apollo 11](#) Landing Site

Clementine Image of [Apollo 16](#) landing Site

All of the images on this page are NASA images made by the Apollo astronauts. Thanks to [Kipp Teague](#) for the scans.

To view the complete text of the Sunday, April 1, 2001 Birmingham News commentary on this topic, click [HERE](#).

See these pages for some much better hoax debunking than mine:

NON-FAKED MOON LANDINGS !	BAD ASTRONOMY	CRANK.NET
ARE APOLLO PHOTOS FAKE?	Van Allen Belt Radiation	Moonhoax
Thursdays Classroom	A recent NASA response	NASA Response to 1997 Hoax Claim

LOONEY BIN: O.K.- In the name of fairness, (snicker) here are some web sites that are representative of the Moon Hoax Hucksters. These are right out of the mystical world of Art Bell. Just for kicks, take a moment to examine the invalid conclusions, misinterpretations, and faulty reasoning that undermines the arguments put forth by these so-called "experts". Hone your own "truth detecting" skills by breaking down the false statements on these sites.

[KAYSING INTERVIEW](#) -The "King" of Moon Hoax proponents (This interview with Kaysing is full of obvious misstatements, incorrect information and outright fabrications. Unfortunately, the interviewer apparently

lacked the background knowledge or willingness to challenge Kaysing's preposterous and invalid claims. Kaysing is apparently mixed up about geography, documented history, and basic physics as he quotes unnamed friends, experts, etc.)

KEN OVERSTREET

MOON FAKERS

DARK SIDE

DISINFORMATION

MOON LANDING WAS
FAKE

More facts about the moon and it's alien surface:

It is easy to correlate most of the Apollo lunar surface photos with the TV video tapes of the moonwalks. When I match these "questionable" photos to the historical video sequences, I have found that the Apollo images authenticity is always reinforced by the correlation. The only thing that has been "faked" is this absurd "it never happened" hoax.

There is nothing in the original or the newly digitized Apollo images that indicate "artificial" light or problems with shadows that run in different directions. The lunar surface is a very unique optical environment that cannot be "faked" on the earth. The lunar surface is not bathed in air like the surface of an earthly landscape so the brilliant sunlight is not refracted, filtered and attenuated by trillions of atmospheric molecules before it strikes the lunar regolith (soil). The lunar regolith is also very un-earth like because it also is not saturated with the pressurized gases of earth. The fine particles in the lunar dust are tightly packed as a result and behave more like wet beach sand than the dry dusty, powdered charcoal that it appears to be. The dusty lunar surface reached its current dusty state as a result of billions of years of bombardment by micrometeorites, asteroid and comet collisions and thermal venting phenomena. In addition, the lunar surface material is comprised of a different mix and texture of materials found in any earthly surface. These different qualities make the moon a very different optical environment for photography and lighting. The lunar shadows are not totally dark as this conspiracy theorist contends because light is back-scattered by the adjacent lit areas.



NASA IMAGE AS12-47-6932

Click on this image to view a good example of how "moon dust" flies. Note the dust does not billow into a cloud as you would observe on Earth. It travels outward in a radial pattern away from the point of disturbance.

Moon "dirt" is very much unlike earth dirt. One illustrative example- on the earth pyroclastic or flying volcanic molten materials become elongated into teardrop or random shapes as they fall back to earth's surface through the atmosphere. Similar pyroclastic-type material is found in the lunar surface material but the airless lunar environment causes this material to appear and behave quite differently from similar earthly materials. You can observe such pyroclastic materials in earthly surface samples in areas where volcanism (volcanic activity) is known to have occurred. The term "**pyroclastic**" - derived from the Greek words *pyro* (fire) and *klastos* (broken) - describes materials formed by the fragmentation of magma and rock by explosive volcanic activity on earth.

Similar thermal byproducts can be found in the lunar surface material because trillions of meteorite collisions caused the rapid melting of material from the lunar surface. That material was ejected from the lunar surface by these explosive impacts. These molten materials re-solidified before completing the slow fall back to the lunar surface. The returned lunar surface material contains many of these tiny spherical nodules. These pyroclastic materials appear now as spheres rather than teardrop shapes because the moon environment offers no atmospheric drag to molten materials falling back to its surface following a meteoric impact or explosive thermal venting activity. The presence of these little spheres in the returned lunar samples is further proof that the Apollo artifacts are genuine.

The little spheres, pulverized rocks, and tiny fragments that comprise lunar "dust" cling together tightly as the natural electrostatic charge of the particles is un-attenuated by the presence of air molecules that separate earthly dust. This contributes to the "wet" behavior of the lunar material.

[BACK](#)



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Bart Sibrel's, "The Top Ten Reasons Why No Man Has Ever Set Foot on the Moon" as provided

at <http://www.moonmovie.com/10things.html>

<<http://www.moonmovie.com/10things.html>>

Read my responses to the actual 10 allegations below.

10. "Tricky Dick" Richard Nixon was president at the time. He was the king of cover-up, secret tapes and scandal. Think about all of his potential antics that were not discovered.

Jim: Somebody flunked American History 101. Nixon was sworn in January of 1969 and Apollo 11 was launched on July 16. Six months was hardly an adequate time interval to stage such a massive conspiracy. The Apollo program expenditures and the moon landing mission sequence was determined well before Nixon even won the election in November of 1968. Apollo 11 was also paid for long before Nixon was elected. Besides, Nixon could not so much as pull off a simple burglary or a simple cover-up of a burglary. Why should expect that he was capable of faking a moon landing?

This is the kind of argument typically used by propagandists to induce prejudice or bias in the people who listen to their arguments. In this case, the conspiracy theory "theorist" wants to appeal from an emotional perspective as opposed to a much more fair, logical and objective perspective. Bart is trying tell us that we should not trust NASA because we could not trust Nixon. This classic "guilt by association" argument is not convincing to a critical thinker..

9. A successful manned mission to the moon offered a wonderful pride-boosting distraction for the near revolt of the citizens of America over 50,000 deaths in the Vietnam War.

Jim: Gee whiz! I was at the airport in July of 1969 and watched a grieving family stand on the tarmac while an honor guard removed a family members military coffin from plane. I hardly think they were in the mood to be "distracted" by a moon landing. They were obviously proud of their lost loved one however as they accepted the U.S. flag that draped his coffin. Check the facts once again. It was a slow, painful withdrawal from Vietnam for the USA, but the nation was never "one the verge of revolution". The vast majority of draft-notice recipients dutifully reported fro processing. Nixon had already announced the initial phase of U.S. withdrawal from Vietnam one month before Apollo 11 when he called 25,000 troops home.

A successful moon landing was unlikely to stir anti-war activists either. The anti-war crowd at the Newport jazz festival booed the moon landing announcement on July 20th. The Americans who cheered Apollo 11 in 1969 were probably also cheering the troops in Vietnam. (remember the #1 radio hit: Ballad of the Green Beret"?)

Additionally, the Vietnam casualty count in the year 1969 was well below 50,000 as claimed in #9. In fact the US KIA total for the entire war was 47,000 troops. That was the total at the conclusion of the war. This

absence of fact checking undermines the producers credibility. This Sibrel argument lacks relevance as well as authenticity.

8. The Soviets had a five-to-one superiority to the U.S. in manned hours in space. They were first in achieving the following seven important milestones:

- 1. First manmade satellite in earth orbit...**
- 2. First man in space...**
- 3. First man to orbit the earth...**
- 4. First woman in space...**
- 5. The first crew of three astronauts onboard one spacecraft...**
- 6. The first space walk...**
- 7. The first of two orbiting spacecraft rendezvousing...**

This put America at a perceived military disadvantage in missile technology during the very height of the Cold War.

Jim: Bart really needs to study his space history book a lot harder than he has been. Some of those facts are on target but some are glaringly incorrect. The alleged "military disadvantage in missile technology" was a public perception that was blown away well before the Apollo missions had begun. The Soviets gained much in the early stages of "one upping" the Americans in space by misreporting particular achievements such as a space rendezvous. The "three man" Soviet space craft was merely a cramped standard two-person spacecraft with a makeshift seat tossed in.

The Soviet space walk was one of the riskier stunts. Alexi Leonov nearly died when his "inflatable" airlock was unable to safely accommodate his return to the spacecraft. Leonov could not fit through the makeshift air lock when he returned to it following his walk. Leonov's primitive spacesuit "swelled" during his spacewalk as internal suit gas pressures were maintained. Backwards Soviet technology made an airlock necessary for spacewalking. The Russian spacecraft used primitive vacuum tube electronics that could not operate in the harsh vacuum of space and therefore the Russians had to rig a makeshift inflatable airlock onto the hatch to enable the spacewalk without causing the spacecraft's electronic tubes to overheat in the vacuum of space. The airlock was required because the crew cabin had to remain pressurized with air. The electronics located within the crew cabin would have failed quickly if air pressure was lost. Leonov barely survived when he had to lower his suit pressure to an almost dangerous level in order to fit back into the airlock. U.S. astronauts could de-pressurize the crew compartment of their sophisticated Gemini spacecraft and open the hatch for a spacewalk.

By the close of the pre-Apollo Gemini Program, the US had gained a better than two-to-one advantage in total human spaceflight hours. The US was not in a "space panic" mode at the time of Apollo.

The Soviet rendezvous in space was fraudulent because those particular spacecraft did not and could not change their orbits. They merely passed near each other when their orbital tracks were pre-planned to nearly coincide. The crews or onboard systems did not rendezvous actively. U.S. leaders knew of these Soviet limitations at that time.

Additionally, there was never an actual military "missile gap" between the U.S. and the USSR although many in the Pentagon found it advantageous to let the news media spread this myth.

7. Passengers of a spacecraft that went further than Earth orbit would likely have been subjected to lethal radiation. The Apollo missions were the only times ever that an astronaut, Soviet or American, left the safety of earth orbit and ventured into the deadly hazards of space radiation.

Jim: Total nonsense! See [this](#).

Bart does not appear to possess even the most elementary knowledge of ionizing radiation in outer space. This defective argument apparently is based on a misunderstanding of the concentration of radiation, high-energy particles and the potential for "Bremsstrahlung" X ray activity whilst a spacecraft passes through the Van Allen Belts on the way to interplanetary space. An astronaut would have to spend a total of two days, continuously within the Van Allen belts in order to be dosed lethally. The furthest extent of the donut shaped outer Van Allen belt is about 17,000 miles. Since Apollo was accelerated to 25,000 miles per-hour during the lunar trajectory insertion, the time spent by astronauts in this region could be measured in minutes rather than days. The same holds true as the astronauts return from the moon at the same velocity. I can assure you that it is much more dangerous to drive to the local mall than it is to fly across translunar space.

Click [here](#) to see a drawing of the radiation detection/measurement devices carried aboard Apollo 8 when it traveled to the moon in December 1968. The radiation exposure levels encountered by Apollo 8 as it journey through the Van Allen Belts were no greater than that experienced during high altitude aircraft flight.

Other than the Van Allen belts, the space between the earth and the moon is pretty quiet as far as radiation is concerned. Beyond the protective Van Allen Belts and earth's atmosphere, concentrated deadly solar eruptions of nasty particles do occasionally occur, but not on a regular basis. Such radiation is not a constant flux, although the peak periods of "solar eruptions" can be potentially deadly. This issue was addressed and the hazards of potential solar "eruptions" were known to the astronauts and all of NASA. Solar scientists observed the sun closely prior to each flight to look for brewing magnetic disturbances on the solar "surface". Even today, solar scientists continuously monitor the sun for signs of global communications disrupting solar eruptions. Such eruptions are far from routine, daily hazards to our communications satellites. Think about this: How many times a year do you see in the news an item about solar flares knocking out radio communications?

Solar flare monitoring sites located at Carnarvon & Culgoora, Australia,---the Canary Islands---and Boulder, CO USA continuously surveyed the sun for flare activity during the Apollo lunar missions. Solar flares do not occur without a preceding and observable "build up". This solar activity was monitored for the same reason that Doppler radar is used on earth to warn aircraft pilots about dangerous weather in their flight path. Apollos did not launch into "solar storms". The solar system is also a very large area and these solar eruptions do not emanate from the entire solar surface in one, monumental blast. They are kind of like shotgun blasts. A solar eruption has to occur with fairly precise aiming in order to hit a target as small as the earth-moon system.

6. Neil Armstrong, the first man to supposedly walk on the moon, refuses to give interviews to anyone on the subject. "Ask me no questions, and I'll tell you no lies." Collins also refuses to be interviewed. Aldrin, who granted an interview, threatened to sue us if we showed it to anyone.

Jim: This claim is absurd and inaccurate. I was one of the people who interviewed Buzz and Neil at the 30th Anniversary events at KSC in 1999. There are hours and hours of [Neil Armstrong](#) interviews in the public

and private record.

Neil Armstrong's office released a statement on April 9, 2001 stating that while he "accepts that individuals may believe whatever they wish", he was "substantially offended by the program's implication that his fellow Apollo crewmen were possible accomplices in the murder of his very good friends Grissom, White and Chaffee. He has indicated his displeasure to FOX." The statement also expressed the hope that "NASA responds to this matter in a more forceful manner than they did in the FOX broadcast" where Sibrel made his allegations.

During a C-SPAN interview, Buzz Aldrin categorically dismissed Bart and his fellow conspiracy proponents as profit-seekers who are merely taking advantage of the opportunity to exploit gullible people. Buzz does resent strange people with bizarre accusations who come to his door with video cameras rolling. Wouldn't you?

5. Newly retouched photographs correct errors from previously released versions. Why would they be updating thirty-year-old pictures if they really went to the moon?

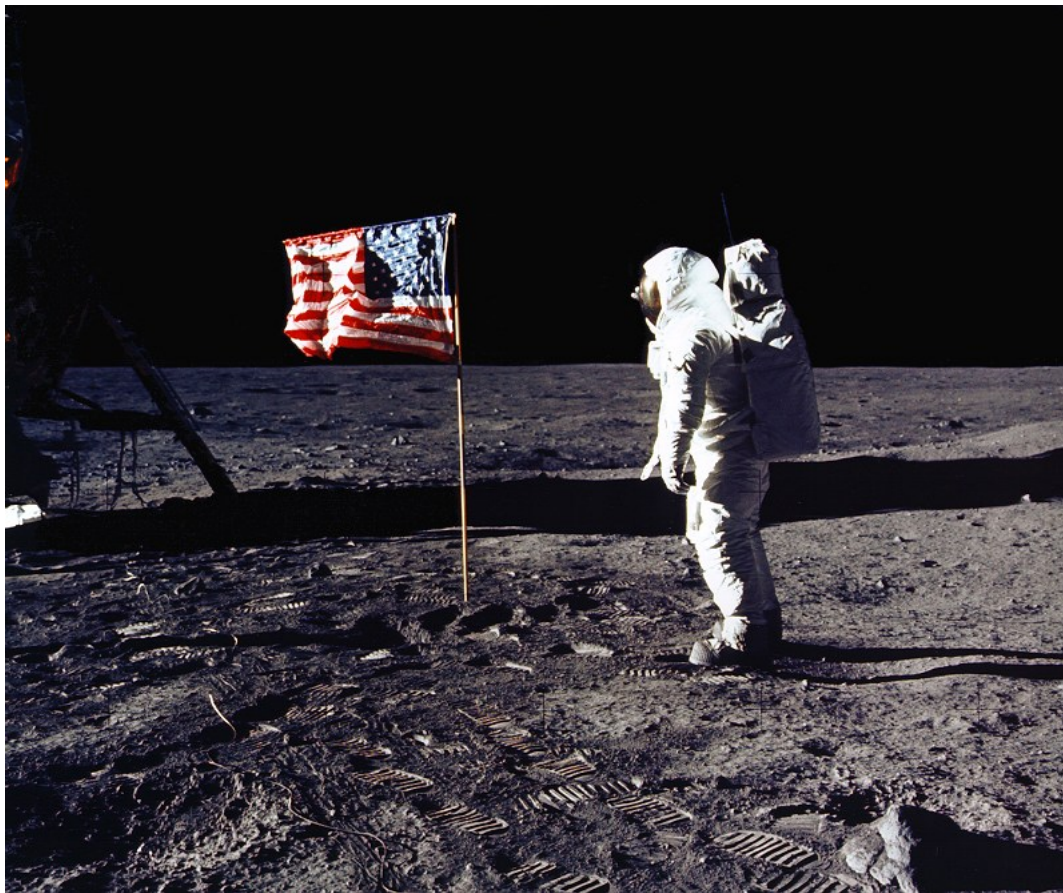
Jim: "Duhhh". Maybe because we have superior imaging and image scanning technology these days and people like me want to see cleaner prints of these old Apollo images. This is the same reason that older movies are now being re-mastered for DVD. Contention #5 really draws a very strange conclusion without simultaneously offering a rational and supportive argument. Pure paranoia in play here.

Actually, none of the Apollo negatives have ever been "retouched". Sibrel and some of the other hoaxers have been looking at inferior scans and prints of the Apollo original negatives that appear in NASA Public Affairs releases and in publications created by private publishers. The general press was usually satisfied with the quality of the old scans and prints that NASA public affairs churned out since newspaper and magazine printing technology was far from the higher quality standards of today. Broadcast television video was also very "blurry and fuzzy" until the late 1980's when home television sets were vastly improved with digital tuners, electronic filters and larger, brighter screens. The grainy, 16-millimeter NASA documentary films supplied to the TV networks back during the Apollo years look quite primitive by today's video standards.

4. Rediscovered lost footage shows the American flag blowing in the wind. The wind was probably caused by intense air-conditioning used to cool the astronauts in their lightened, uncalculated, space suits. The cooling systems in the backpacks would have been removed to lighten the load not designed for earth's six times heavier gravity, otherwise they might have fallen over.

Jim: Actually there is no such thing as "lost footage" from Apollo and the only reason that the flag is seen flopping around in the video shown on Sibrel's documentary is that the astronauts are moving the pole around while they are planting it in the lunar surface.

The extent of the accusers historical ignorance is revealed here. The NASA folks did not want the flag to hang limp so a wire stiffener was added to give the appearance of an unfurled flag in a breeze. This fact was published in numerous press releases and news stories of the day. An examination of the video never shows the flag flapping in any manner other than that inflicted during the mechanical action of planting it in the highly resistant lunar surface. Also, if "intense air-conditioning used to cool the astronauts" then why don't we see the dusty surface soil bowing and swirling about in the video? You sure can see this powdery lunar surface material fly up when it is kicked up into fanlike patterns by Neil and Buzz's lunar boots. It slowly falls back to the lunar surface in the 1/6 G gravity field.



Apollo 11 flag with "stiffener".

3. Enlarged photographs underneath the lunar lander's 10,000 lb. thrust engine showing the soil completely undisturbed. During ground tests there was grave concern for the vehicle falling into the hole the engine created as it descended. An oversight that they would have to keep for all subsequent moon missions. They attributed it to the affect of no atmosphere (except for the flag blowing in the wind!)

Jim: This is an incredibly ignorant claim. Wow, most helicopters that you will ever see have more thrust than the Lunar Module descent engine used during the final landing phase. Why don't they blast craters in the ground when they land in the desert or on a sandy beach? The Lunar Module (LM) descent stage engine had a variable thrust range of 1050 to 9870 pounds. The thrust was at a lower setting as the extremely light LM carefully made its final approach to touchdown and the astronauts cut the thrust completely about six feet above the lunar surface. The actual thrust required for the landing phase was much less than that provided by many civilian helicopters and aircraft. The LM only weighed a total of 8600 lbs on EARTH, so on the MOON it weighed 1/6th of that or about 1433 pounds. (Check my math, please.) As you can see the straight 10,000 pound thrust figure used by Sibrel here is either intentionally deceptive or yet another display of ignorance.

Whoever drew this "blast crater" conclusion also needs their eyes examined. There is evidence of slight "raying" of the lunar material at this site and it is also smoother than the surrounding surface material. The other two claims made in this charge appear to have been pulled out of thin air. They have no merit. Numerous unmanned craft (Surveyor) had landed on the moon prior to Apollo 11 and the same effects were observed. The effective pressure from the lunar module descent engine would not have been adequate in strength or duration to dig a significant "blast hole".

Have you ever seen a helicopter or Harrier "jump" jet leave a blast crater when they land in hard pack or desert terrain? Of course not. Hawker Harrier jump jet vertical thrust is more than twice the 10,000 pound thrust of the lunar module, but I have never seen a crater form beneath a Harrier. Why would we expect a

"blast crater" at a lunar landing site? I am also sure that many of you have stood beneath a hovering helicopter and felt substantial "thrust" in the form of wind coming from the craft. That substantial force nearly drowned astronaut Gus Grissom when a recovery helicopter hovered above him following his ill-fated Mercury splashdown. Aircraft engines (jet and prop) do indeed produce thrust just like rocket engines do. I recall standing behind a B-25 bomber at an air show when the pilot gunned the engines and the force almost blew me off my feet.

In 1967, Dr. Eugene Shoemaker investigated the un-earthly characteristics of the lunar surface material with his soil mechanics surface sampler that was carried aboard the unmanned Surveyor 3 spacecraft. The soil mechanics surface sampler was designed to dig, scrape, and trench the lunar surface and to transport lunar surface material while being photographed so that the properties of the lunar surface could be fairly well determined. The sampler was mounted underneath the television camera and consisted of a digging scoop. The scoop consisted of a container, a sharpened blade, and an electrical motor to open and close the container.

Shoemaker's experiment clearly demonstrated the resilient "wet-sand" like cohesiveness of the lunar surface material. The camera images of the trenches dug by surveyor clearly indicated that the surface stuff was not like the sandy surfaces that we find on earth. The lack of atmospheric saturation on the moon allowed the electrostatic bonds between the surface particles to cling tightly. This and the fact that the lunar surface has had billions of years to settle under the gentle pull of lunar gravity makes this soil pretty much a hard pack. The relatively low power LM engine was able to scatter some of this material as it made its final approach, but there was never any serious worry (by credible persons) over blast craters as was stated in the documentary.



Apollo 11 image showing descent engine "dusting" of lunar surface. The engine throttle is actually set quite low as the LM approaches touchdown. It is set only at a fraction of the 10,000 lbs total thrust claimed by Sibrel. The throttle is set for far less thrust than most helicopters thrust here on Earth. It can clearly be seen that some of the lunar surface material was scattered by the engine exhaust. Nothing unusual here at all.

2. Rare, uncirculated photographs, allegedly from the moon's surface, show scenes supposedly lit solely by sunlight. Yet they contain shadows that do not run parallel with each other, indicating supplemental artificial light. Sunlight would cast shadows that would never intersect.

Jim: Most people can look in their family photo album and find ordinary outdoor photographs that contradict this bogus argument. Here is a newspaper photo of me launching a rocket in broad daylight. It appears that my shadow and the rocket shadow are almost perpendicular. They are not parallel. I do not understand where this crazy argument is coming from. One can find shadows that appear to form intersecting lines in thousands of ordinary photos that appear in magazines, family photo albums and newspapers.



The film logs and images are available to anyone who requests them. I do know that topographic undulation or differences in orientation can cause "intersecting shadows". If you stand next to a variably, sloping pit with the sun directly behind you, observe how the shadow that your body casts across the pit appears longer and different from your shadow as when you observe it cast across a level, flat, surface. Try a few experiments with objects and shadows the next time you are at the beach and have a little time to build a few sand piles and dig some big holes. Your family might think that you are nuts, but explain to them that you are doing some science. Also- No such thing as rare "uncirculated" Apollo photographs. All Apollo images are and always have been readily available by request.



All of these unique lunar surface characteristics contribute to the unique optical qualities of the lunar material. An expert on earthly photography and lighting can be baffled by the odd lighting characteristics of the lunar surface. The lunar surface is unlike any place that the documentaries experts have ever dealt with. They are not qualified to make the claims that they have put forward. Most of the claims about lighting and shadows in this show are absurd and pointless. One absurd claim was that we should not be able to see the astronaut in the image below because he is standing in the shadow of the Lunar Module.



Most of us have all observed from our amateur photography experience how a relatively bright object within a shadow (such as a white spacesuit) can show up in a print, while darker materials such as the grass under a shade tree or dark grey lunar soil will appear black. I believe that some people mistakenly believe that light cannot be reflected or "back-scattered" into the shadowed areas of a vacuum environment such as the lunar surface. If this were true then we would not be able to see the "earth-lit" portion of the thumbnail moon. For that matter how would sunlight reach the earth since the same space vacuum lies between us and the sun. Reflected light travel through a vacuum in the same manner as direct lighting. Most lay people have a basic understanding of how image contrast works. Most television sets have a contrast control that allows a viewer to control how well objects can be seen in a shadowy or dark area.

Different photographic films also have different abilities to handle "high-contrast" images. A professional photographer will utilize bright reflectors to increase light levels in shadowed areas during outdoor photography. The shiny gold and silver Mylar insulation covering the Lunar Module as well as the "low-albedo" lunar surface both scattered ample light into the shadow of the spacecraft. (Moon's albedo is 0.12, Earth is 0.38) The Apollo cameras had aperture settings, F-stop settings, speed settings and other arcane ways of setting the cameras on the fly. Some astronauts were better photographers than others. One of my favorite stories is about how John Glenn purchased the camera used in his Mercury mission at a Cocoa Beach drug store after he realized that NASA was not going to furnish him with one for his flight.

This "documentary" made much ado about the lighting "hot spots" seen in some Apollo photographs made while the camera was looking down-sun. The so-called "isolated hot spots" of sunlight seen in the Apollo surface photographs are a natural result of the "wet beach sand" qualities of the lunar dust particles described a couple of paragraphs above. I have been able to duplicate this phenomena in earth sunlight by using real "wet" beach sand in Florida. With the sun behind and over your soldier (just as the moonwalkers were positioned when they made the photos in question), you can make your own photographs of beach sand that have these hot spots in them.

1. Recently uncovered mislabeled, unedited, behind-the-scenes video footage, dated by NASA three days after they left for the moon, shows the crew of Apollo 11 staging part of their photography. Is this the arm of God moving across the earth, or an outtake of an astronaut's arm in front of a mockup of the earth as it might appear from a distance if they were actually able to leave earth orbit? See our streaming video: "God's arm or astronaut's?" Either way, it's one-of-a-kind footage and is only available in "A Funny Thing Happened On The Way To The Moon!"

Jim: Actually, I already covered this contention on the first [page](#) of this web. Sibrel does not have a strong grasp of the Apollo spacecraft configuration or what is actually going on during these telecasts sequences. These are profound charges made by an accuser without the profound expertise or basic knowledge required to back them up. Case dismissed. PS- This is where you were told that you must pay Sibrel to see his "evidence". Get it?

I remember visiting the impressive looking lunar surface Astronaut facilities and simulators at various NASA facilities as a teenager back during Apollo. Some people may see images made during these training sessions and confuse them with actual Apollo lunar surface photos. That is an understandable mistake for someone who is not expert in space history. Perhaps it is a lack of expertise in this particular area that makes some people susceptible to conspiracy theories of this type.

Bart's "new" List of Reasons

Bart has changed his list of ignorant misinterpretations and added a few new bogus claims. Here they are:

Bart's New #6: Bart Sibrel- *"The top portion of the lunar module which landed on the moon supposedly popped up off the moon with two astronauts aboard, entered lunar orbit 60 miles up, and docked with the command module in lunar orbit. To look at its design and think such could have actually occurred is absolutely ludicrous. The fuel tanks were nowhere near one-sixth the size of those on the space shuttle as one would expect to achieve lunar orbit."*

Jim McDade: This statement reveals Bart's lack of engineering knowledge. His "1/6th" claim is not applicable since the shuttle and the Lunar Module (LM) are different and distinct vehicles designed to meet entirely different requirements under entirely different operating conditions. Bart mistakenly assumes that the simple concept of "scalability" should dictate that the LM fuel tanks should be 1/6th the size of the Space Shuttle tanks.

The Space Shuttle was designed to be a heavy-lift cargo truck in comparison to the "light-duty" lunar module ascent stage that lifts off from the moon. The Apollo astronauts were crammed into the tiny LM ascent stage after the moonwalks. The LM did not have to endure the aerodynamic and high dynamic stresses that a Shuttle has to encounter. Therefore, the entire LM was made of ultra-lightweight material. The Shuttle is made of much heavier stuff. It is misleading to compare the two vehicles in terms of thrust and fuel requirements.

The LM ascent stage had to carry just enough food, oxygen and water to sustain the two man crew for a very short period of time after the lunar lift-off--- a matter of hours. The only cargo was two astronauts, necessary consumables and a couple of sample boxes. The space shuttle also has to carry enough oxygen and water to sustain to sustain seven people for more than two weeks. Shuttle also has that 65-foot long cargo bay that is usually crammed with a SPACEHAB laboratory, ISS module and/or an ISS docking module. For comparison, the Space Shuttle's SPACEHAB alone typically weighs about 20,000 pounds when loaded with experiments. That is more than 2000 times the weight of lunar samples carried aboard the Apollo 14 ascent stage when it lifted off from the moon. Bart's "1/6th" argument ignores this fact. Bart's comparison of the LM ascent stage and the space shuttle simply does not fit into reality.

The orbit insertion of a LM is not comparable to orbit insertion of the space shuttle. On earth, the space shuttle typically weighs about 4.5 million pounds at lift-off. The shuttle requires 7.3 million pounds of thrust at liftoff. This weight varies a little bit depending on cargo weight. That is a terrific amount of weight to lift and requires extremely powerful engines and lots of fuel to accomplish a journey into space. The LM ascent stage typically weighed about 10,000 pounds on earth (1700 pounds on the moon). The relative fuel requirement for putting the Lunar Module ascent stage into a lunar orbit is much, much less than the fuel requirement for launching a space shuttle. Additionally, the moon does not have an atmosphere, so the LM was able to achieve an operational orbit at a relatively much lower altitude than a space shuttle. Also, the LM did not have to encounter atmospheric drag on its way up to orbit. The Shuttle has to climb through and well above earth's atmosphere to achieve an operational orbit. In conclusion, the Space Shuttle energy (fuel) requirements cannot be honestly compared to those of the LM ascent stage.

Bart's New #5: Bart Sibrel- *"The surface of the moon is a vacuum. The landing module would have been heated to 250 degrees on the light side where they landed. There is no way they could have rejected the heat for as long as 72 hours as they claim on some Apollo missions. How long do you think you could keep your car cool on a hot day running off battery power?"*

Jim McDade- This is yet another faulty attempt to take a common everyday earthly experience, and match that everyday experience with Bart's incomplete understanding of the lunar environment. This comparison is illegitimate. The Lunar module landed during the early morning hours of a lunar day. The 250 degrees cited by Bart is actually the maximum lunar surface temperature at lunar noon, when the sun is directly overhead. The lunar "day" is about two weeks long. None of the Apollo astronauts were ever on the moon during the lunar noon. In addition, to this fact. The passengers who ride on the International Space Station at this very moment also face the full thermal heating that results from unfiltered solar flux. Space technology has always been designed with the thermal characteristics of space in mind. I challenge Bart to use math and science to prove this particular "thermal" claim. He is welcome to publish a scientific paper and I will post it on this web site so that it may be reviewed by scientists and engineers who are expert in the study of solar flux and thermal dynamics of materials in space. A Lunar Module is not a "car" sitting in a sunny parking lot. Evaluating the interior heating of an automobile sitting on earth in the sun and comparing that to the thermal profile of a LM sitting in half, "hot sun" and half, "cold shadow" in the moon's vacuum does not constitute a valid comparison.

Bart's New #4: Bart Sibrel- *Take a look at the lunar module which supposedly flew from lunar orbit to the surface of the moon. It is a cylindrical shape with a high center of gravity and one big thrust engine at the bottom. Upon just looking at this design, to think it would not immediately pinwheel and crash, as the lunar module trainer did three weeks prior on Earth, is absurd.*

Jim McDade- Is Bart blind now. The LM is not cylindrical! This absurd claim reveals that Bart never went to engineering school. A person cannot look at a machine and tell where the center of gravity is. I have been building rockets for decades. I use a special jig to locate the center of gravity of my small rockets so that I can add or subtract weight from the vehicle in order to insure that the center of thrust and the center of gravity are not out of whack. The LM is a complex three dimensional structure. So is the Space Shuttle. You can't just look at something and point at the center of gravity. Regardless, we all see all kinds of shapes and sizes of aircraft and helicopters when we go to the airport. A lot of careful engineering goes into those designs. If the LM could not "fly", don't you think that the thousands of people who design aircraft would have "blown the whistle" long ago?

Bart's New #3: Bart Sibrel- *After the Apollo 11 mission, Armstrong, Collins and Aldrin gave a press conference. When asked whether they remembered seeing any stars from the surface of the moon, Collins, who was supposedly in the command module the whole time, gave a wrong answer to a question he should not have been answering. The relevant portion of this clip is in my documentary; viewing it with an understanding of the circumstances makes it clear they were lying about having traveled to the moon. I'm saying Collins blew it right then and there and I honestly cannot understand why there is even further discussion on the whole topic. Furthermore, if you obtain a written transcript of the press conference you'll see that the comment is erroneously attributed to Aldrin. Honest mistake or cover-up?*

Jim McDade- I guess Bart is deaf as well as blind. Collins never "blew it" because Collins never said that he saw stars from the lunar surface. If he had said this, reporters would have jumped all over it at the time. What! Does Bart claim to have more "secret, never before seen footage" of Collins saying this? For a self-proclaimed Christian, Bart should find it easy to label someone a liar.

Bart's New #2: *In 1967 three astronauts were burned alive on the launch pad. The upshot of the*

congressional inquiry was that the entire Apollo program was in shambles and it was a miracle no one was killed sooner. All of the problems were supposedly fixed by 1969, just two years later. How could they have made such a large improvement in "quality control" in such a short period of time.

Jim McDade- Only a scumbag would tread over the graves of those three brave astronauts in order to sell a hoax. The problems that led to that tragedy were not as insurmountable as Bart would have his empty-headed followers and sycophants believe. Here is the summary report of the Apollo fire investigative team:

"SUMMARY

Although the Board was not able to determine conclusively the specific initiator of the Apollo 204 fire, it has identified the conditions which led to the disaster. These conditions were:

- A sealed cabin, pressurized with an oxygen atmosphere.
- An extensive distribution of combustible materials in the cabin.
- Vulnerable wiring carrying spacecraft power.
- Vulnerable plumbing carrying a combustible and corrosive coolant.
- Inadequate provisions for the crew to escape.
- Inadequate provisions for rescue or medical assistance.

Having identified the condition that led to the disaster, the Board addressed itself to the question of how these conditions came to exist. Careful consideration of this question leads the Board to the conclusion that in its devotion to the many difficult problems of space travel, the Apollo team failed to give adequate attention to certain mundane but equally vital questions of crew safety. The Board's investigation revealed many deficiencies in design and engineering, manufacture and quality control. When these deficiencies are corrected the overall reliability of the Apollo Program will be increased greatly."

It took more than a year to correct these conditions. Apollo 7 finally flew in October of 1968. The fire happened in January of 1967.

Bart's New #2: All Apollo missions stayed in low-earth orbit for the duration of the trip. We uncovered some mislabeled, unedited, behind-the-scenes footage from NASA that shows the crew of Apollo 11 clearly staging a shot of being half-way to the moon. This clip, shown in our documentary, proves they did not leave low-earth orbit. You won't see this anywhere else!

Jim McDade- Utter nonsense! As he usually does, Bart provides an unsupported conclusion based on his own ignorant speculation and misinterpretation. His documentary does not show this "clearly" by any stretch of the imagination. That footage is not even mislabeled as he claims. NASA had contracts with a private companies to distribute the mission documentaries in those days. it would have violated the spirit of those contracts for NASA to directly produce films for public distribution. the footage in that film had been seen by the public in those documentaries for years. The video footage that Bart claims was "unseen" went out live to the world at the time. That video came to Houston through a not so well secured communications network that stretched across the globe. Bart needs to do his research before he spits out such errant statements.

See: <http://www.parkes.atnf.csiro.au/apollo11/introduction.html>

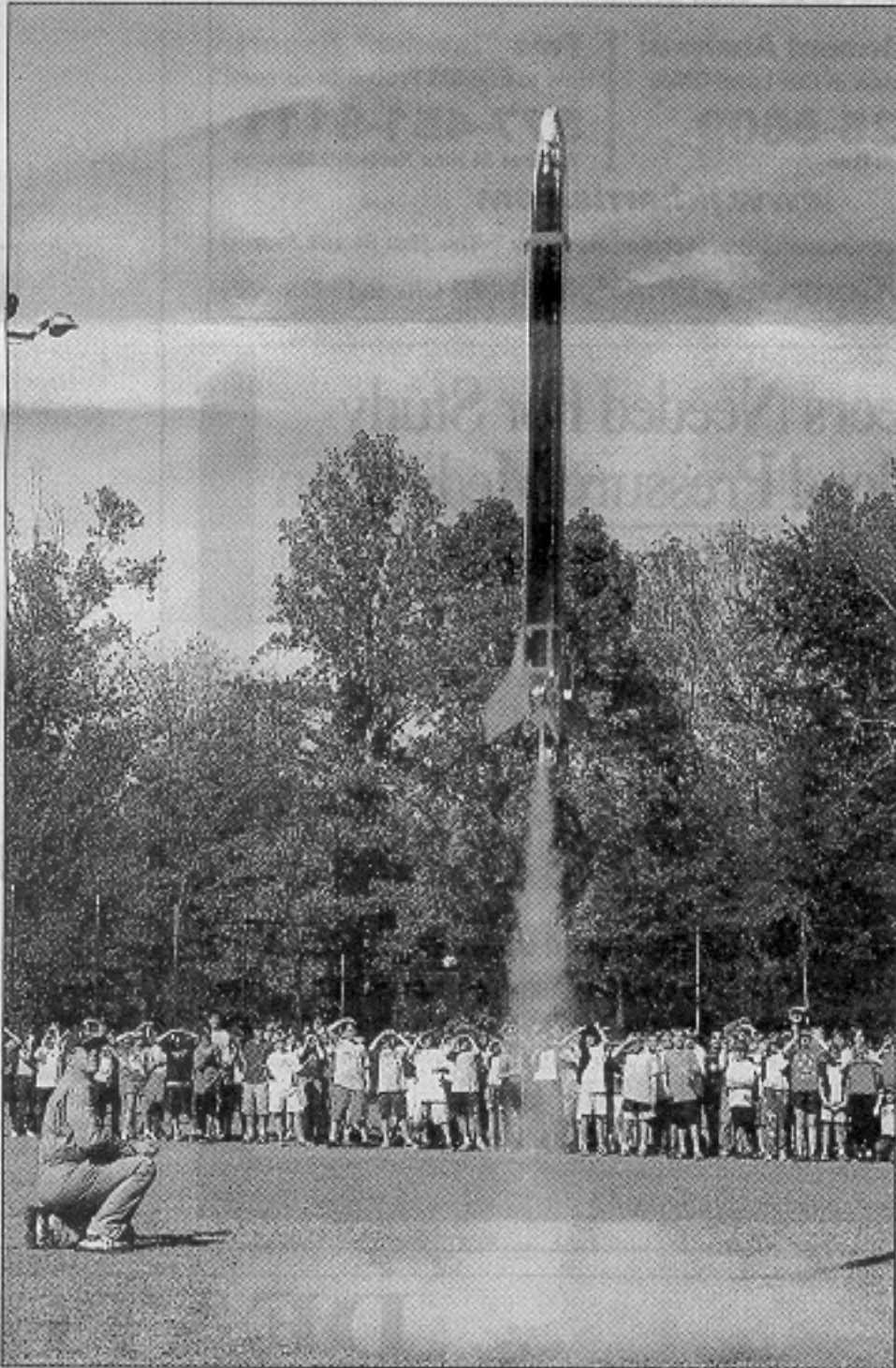
<http://www.atnf.csiro.au/news/16jul99/>

<http://www.museum.tv/archives/etv/S/htmlS/spaceprogram/spaceprogram.htm>

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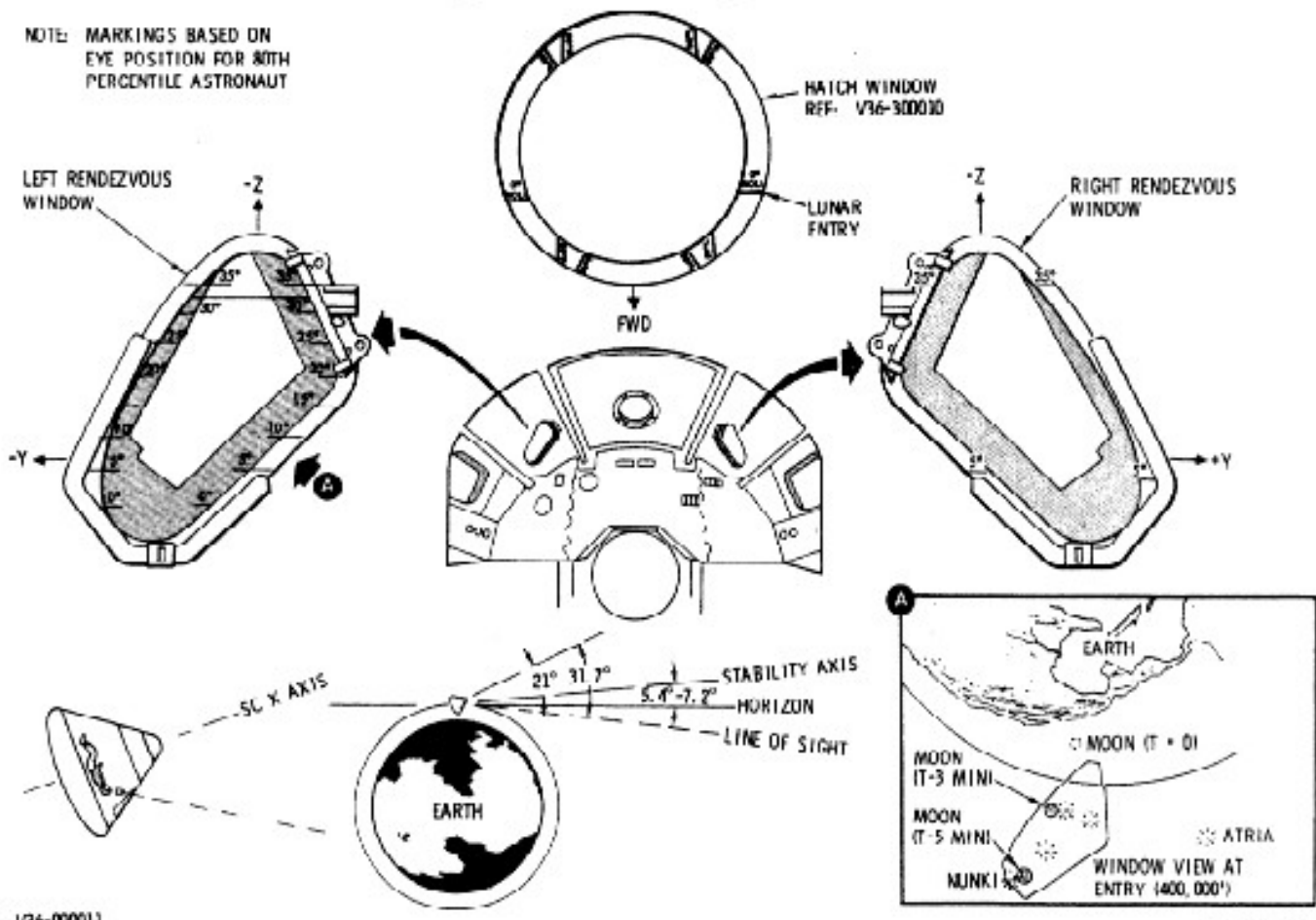
A blast of a celebration



NEWS STAFF/BEVERLY TAYLOR

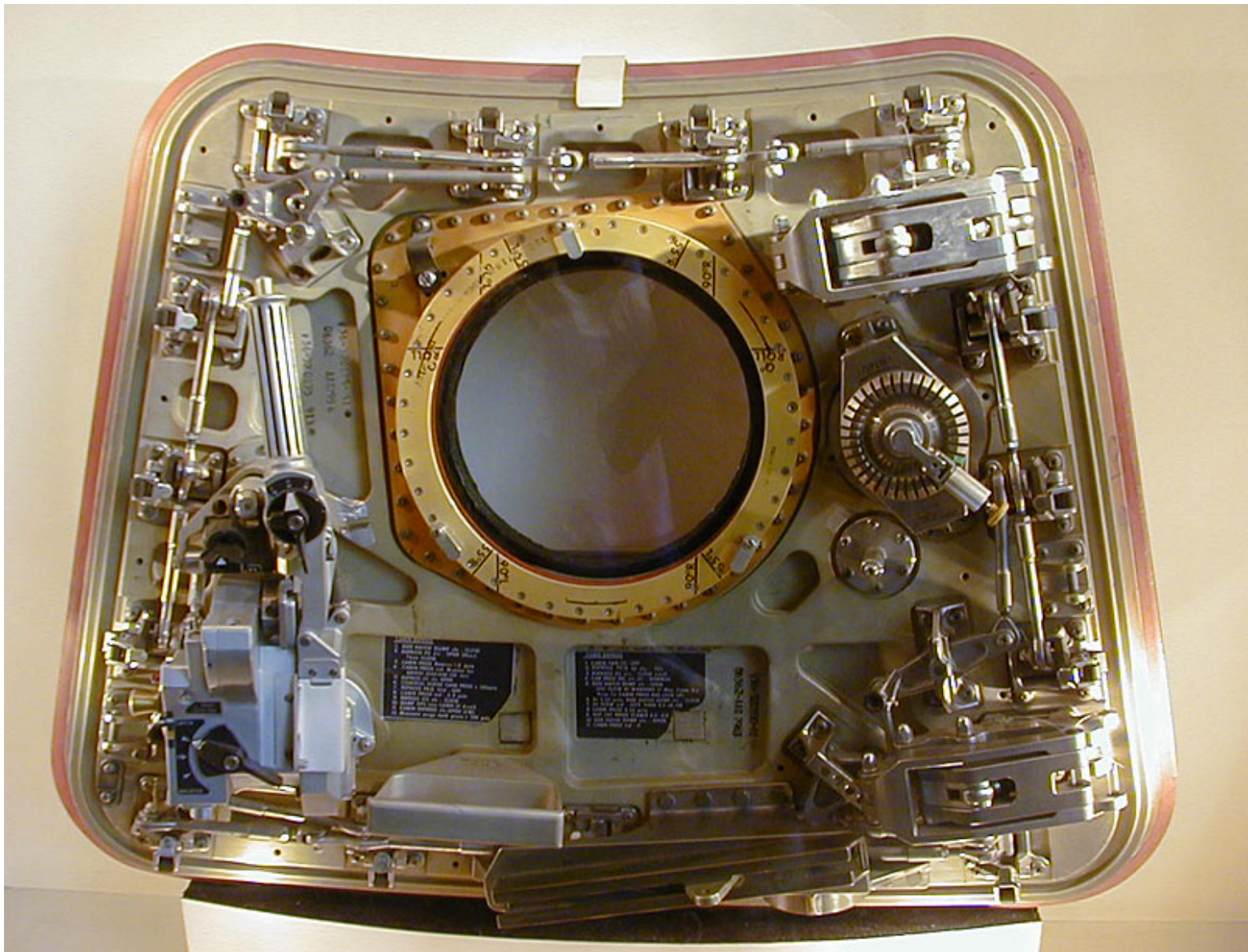
Science enthusiast Jim McDade of Vestavia Hills launches a rocket from the soccer field at Mountain Brook Elementary School. McDade was helping the students celebrate their reading program themed, 2001 A Space Odyssey, which logged more than 12,000 hours of reading in four weeks.



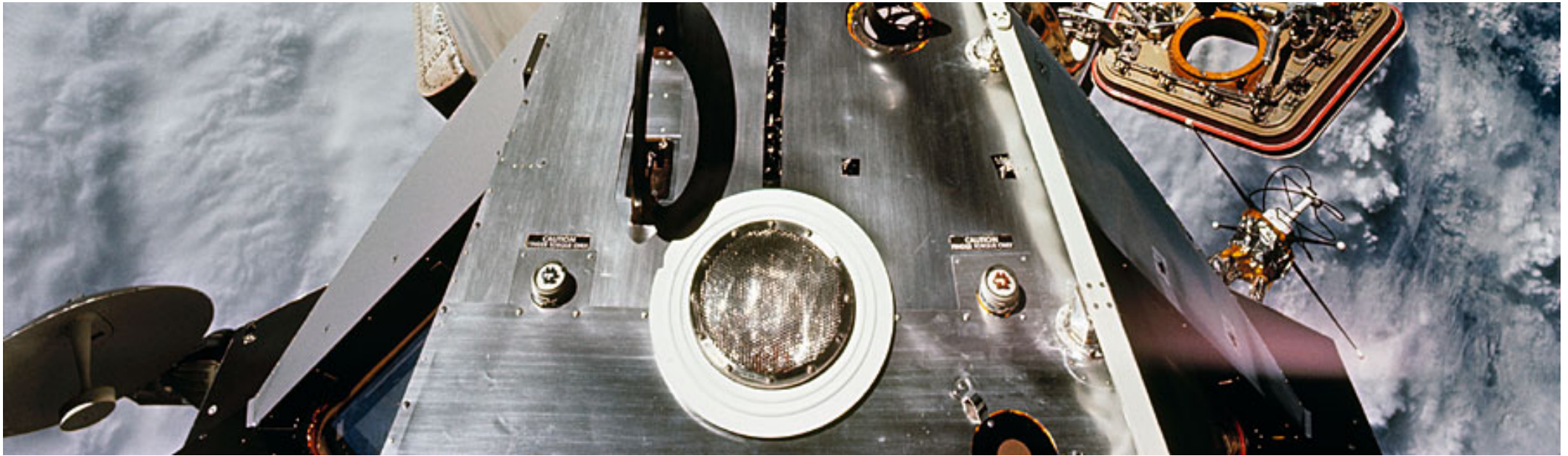


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Glowing in the Dark: The Glaring Ignorance of Apollo Hoax Hucksters

by Jim McDade

After several sporadic searches of my extensive "space library", I finally found a booklet that I started searching for after hearing Apollo hoax conspiracy advocate, Marcus Allen, foam at the mouth last week (11/27/02) on the Art Bell radio program. Allen claimed that human spaceflight to the moon was impossible with the Apollo spacecraft since "deadly radiation" would have killed the crews. The more that I re-read my collection of texts and papers on space exploration, the more obvious it becomes that these hoax believers are basically half-cocked, functional illiterates.

The little publication that I was looking for is titled "SPACE RADIATION" by William Corliss. (Library of Congress Catalog # 6860048) Corliss was a nuclear energy consultant and Director of the Martin Company's Nuclear Division. Corliss is eminently qualified to discuss the issue of space radiation, particularly in comparison to people such as moon hoaxers Marcus Allen (photographer), Bart Sibrel (video cameraman and producer), Bill Kaysing (Bachelor of Arts in English) and Ralph Rene (self-taught). Corliss has physics degrees from Rensselaer Polytechnic Institute and the University of Colorado.

In "SPACE RADIATION", Corliss begins by identifying the three types of space radiation--- 1. Cosmic rays 2. Van Allen Belt (zone) radiation 3. solar plasma. The booklet goes into some detail in describing the specific nature of each type of radiation as well as providing details about "Earth's Snug Harbor" that shields us from most of this radiation. Corliss also points out that our entire human bodies are continuously penetrated by scores of cosmic rays despite the protection offered by the Earth's ionosphere, magnetopause and atmosphere. I have read articles in medical journals that speculate that some human cancers are caused by random cosmic ray strikes on the cellular "replicator genes". You don't have to travel to the moon to be killed by cosmic rays.

Although the effects of radiation vary from person to person, a daily dose of 600 rads is considered lethal for humans. 100 to 200 rads per day can cause nausea and vomiting. (Of course, watching primetime TV these days can also cause nausea and vomiting.) Radiation measurements over the course of space exploration history have generally been lower than anticipated on long term space missions. NASA has obviously taken the most conservative stance on risking the life and health of astronauts as far as radiation is concerned. The astronauts on the Skylab 3 mission received less than 8 rads total exposure during 84 days on orbit. The official NASA exposure limits are 75 rads per year for the whole body and an astronaut career limit of 400 rads.

Particulate space radiation has been studied extensively by manned and unmanned spacecraft since the dawn of the space age. Corliss points out that the "overwhelming majority of space radiation consists of high-speed electrons, protons, and alpha particles". About 2% or less of all cosmic ray particles are heavier-than-helium nuclei. Atomic nuclei stripped of their electrons are the real worry when it comes to cosmic rays. However, the danger posed by these tiny bullets varies according to what specific tissues are struck by them.

A "rem" exposure of 980 in a human foot is not considered to be a fatal exposure. "Rem" is short for "roentgen equivalent mammal". A rem level is the amount of any ionizing radiation absorbed that has the same biological effectiveness as one roentgen of x-rays. An exposure of 900 REM inside the peritoneum, reproductive organs or the human brain is unacceptably risky. These risks were known at the time of Apollo and the spacecraft and spacesuit designs were partially determined by the known risks to human cell tissues. The health and safety risks posed by cosmic rays were deemed acceptable well in advance of the Apollo 8 mission to the moon in 1968. Maximum radiation dosage levels established in advance of Apollo were as follows: 980 rem for feet, 700 rem for the skin, 200 rem for blood forming organs, and 200 rem for the eyes. The "rem" measure was derived by combining the Relative Biological Effectiveness (RBE) of radiation effects with the standard rad (radiation per unit mass of exposed tissue) unit. ("Roentgen" is another old radiation measurement unit that adds to public confusion about how radiation effects are measured.) Regardless of which unit of measure is used, radiation is still a mysterious and arcane topic for most of the population. Most people can understand temperature, relative humidity and barometer readings, but rem, rad and roentgen remain strange and frightening words.

Although the Van Allen Belts were not discovered until 1958, the effects of solar flare radiation were observed decades before Apollo. As early as 1937, the so-called Forbush Effect provided key evidence about the nature of space radiation. Corliss wrote that underneath the Van Allen zone, "solar wind and the plasma within the solar-plasma tongues constitute no threat to humans in space, because the protons and electrons are too weak to penetrate spaceship hulls or even spacesuits... the additional primary cosmic rays and the few trapped particles on the fringes of the Van Allen Belts amount to only a few millirads per day, much less than the exposure permitted workers in atomic energy installations". The author continues, "The use of massive shields to protect astronauts against primary cosmic radiation is hardly needed. Even extremely thick slabs of heavy metals would hardly diminish the flux of primary cosmic rays; besides in penetrating such dense matter, a few high-energy protons would create avalanches of secondary cosmic rays that could be more dangerous than the primary ones that caused them".

The booklet points out that within the Van Allen Belts, the most intense radiation levels are high enough to kill astronauts, "within a few days". The Apollo lunar transit through the Van Allen belts was a matter of minutes, not days. The hoaxers are therefore way off in their claims about Van Allen Belt radiation. Corliss concludes that the Apollo

astronaut's time within the belts was "far too short to cause important biological damage".

Corliss states that the solar cosmic rays emitted during solar flares pose the most dangerous type of space radiation. He notes that perhaps a half a dozen solar flares occur annually, with more flares during the peak months of the 11-year sunspot cycle. The distribution of the flare material is random, but astronauts who are located outside of "Earth's Snug Harbor" could receive lethal doses of radiation while beyond the magnetosphere and atmosphere. Corliss states that, "human spaceflight beyond the magnetopause can be made safe in two ways" Space craft shielding and timing the launches to occur during a quiet period on the sun". As far as the Apollo missions are concerned, Corliss says, "no one envisions mounting thick slabs of lead aboard the spacecraft. As a matter of fact, the spacecraft structure, the electronic equipment, and water supplies already constitute shielding by virtue of their mass.

The crucial fact pointed out by Corliss as far as the Apollo hoax claims are concerned follows: "The succession of storms in July 1959 (apparently the largest ever recorded) would have given an astronaut within an Apollo spacecraft a skin dose of about 150 rads and a dose of about 15 rads to the blood-forming tissues. These are rather large doses, but they are neither lethal nor even immediately incapacitating. The radiation hazard from a large solar flare, it appears, can be made far less severe than the other hazards of a voyage to the moon....Space radiation, in short, presents hazards no more dangerous than dental x-rays, providing the astronaut travels during the right season and does not loiter in the Van Allen belts".

I am very grateful to William Corliss for publishing his research on space radiation. I regret that I misplaced that booklet for so long while the Apollo hoaxers continued to spread lies and ignorance about the radiation hazards of space travel. It is a genuine pleasure to share his knowledge with you readers so that you can effectively respond to this Apollo hoax conspiracy nonsense.

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Why Stars Are A "No Show" In The Apollo Photographs

by Jim McDade



Buzz Aldrin stands below a "starless" lunar sky.

SUMMARY: Photographic film is incapable of capturing the "very bright" and the "very dim" in the same exposure. The lunar surface is brilliant in daylight. The photos taken by the Apollo astronauts used exposure times of a tiny fraction of one second. The stars in the sky are so dim, that in order to capture them on film, it requires an exposure time hundreds of times longer than those made by the Apollo astronauts.

The people who claim that Apollo never went to the moon are quite clever at using invalid, pseudoscientific (false science) arguments to back up their vast "conspiracy theory". The hoaxers claim that you cannot see stars in the Apollo photographs taken on the moon. This shoddy claim can be quickly dismissed by simply looking in your own photo album or flipping through the pages of a glossy, photo-filled sports magazine. Ask yourself, "How many times have I seen stars in the black sky of night photos taken from the surface of earth?". Capturing the image of a distant star is not as simple as "point and click" photography. The photographs of stars that we see in books and magazines are all "time-exposures" made by professional astronomers or photographers who used special equipment and techniques. The Apollo astronauts never took time-exposure photos on the moon. After all, they went to the moon to explore the moon, not to star gaze.

This "no stars" point made by the hoax documentaries is a typical deception that can fool most people who are unfamiliar with the science of photography. You cannot see stars in any of the astronauts photos made on the moon or on any of those taken by our shuttle astronauts. Fields of stars have never shown up in the pictures taken by astronauts or cosmonauts. The technical reason for this is exactly the same reason that you cannot see stars in a typical snapshot taken of a night football game where a bit of the night sky is in the background. See these images

for examples of no stars in night photos:



<http://www.cal-mum.com/football01/letchworth/schultzsack.jpg>



http://www.jeffcityschools.org/scotland%20visit/oct_2001/10-12/sfaces03.jpg

Were those football games "staged hoaxes"? Certainly not! Stars are just too dim to show up in the photographs made with the photographic techniques used by astronauts, photojournalists and amateurs. This observation about stars holds true on the moon as well as on earth. It requires a special camera "setup" to capture the stars in an image. People sometimes may catch the planet Venus in an evening photograph and mistake that planet for a star. Venus is the third brightest object in the sky after the sun and moon and it is much brighter than the most brilliant star in the sky. Venus is about the only "star-like" object that is fairly easy to capture in a standard photo. The moon is also bright enough to show up in a family photo. Similarly, the Earth shows up in the lunar sky in some of the photos taken by moon walking Apollo astronauts

The explanation for the lack of stars in the Apollo photos is simple, but it requires a basic understanding of how cameras and film works. The lunar surface was illuminated by brilliant, unfiltered sunlight during the Apollo moonwalks. Remember, the lunar day lasts for two weeks, so the astronauts all landed in early lunar morning and typically lifted off of the lunar surface by mid-lunar morning. The sunlit lunar surface is incredibly bright compared to what we are accustomed to when we step outdoors on Earth. The sun looks like a brilliant white torch against the blackness of the airless lunar sky. Alan Bean

said this blackness was so deep that it looked "shiny".

Shadows on the moon look very dark relative to the brilliantly lit surface. However, when one stands in a lunar shadow, it is easy to see or photograph astronauts or rocks in the shadow because the sunlight is "back scattered" off of the surrounding lit surface, rocks and the lunar module. An astronaut standing in the lunar shadows is a lot brighter than any star in the sky due to the reflected sunlight striking his space suit. Astronauts took clear photos of each other in the shadows by slowing down the shutter speed of their cameras. When you look at one of those "shadow images" you can see that everything that is not in the shadow looks somewhat overexposed or "washed out" in comparison to the shadow area since the slower shutter speed allows in too much light from the lit ground and objects. This image of the Apollo 11 ladder and plaque is a good example of this effect:



from Apolloarchive.com

The human eye is an incredibly capable and sensitive instrument. We can see things with the naked eye that camera film cannot detect due to the limitations of the chemical technology used in photographic film. The images that we see in a photograph are the result of "photons" striking the chemical emulsion in previously "unexposed" film. The retina of the human eye functions as the "film" for our biological optics system. The human eye, in concert with a very complex configuration of muscles, nerves, and the fantastic image processing system of the human brain provides us with a highly detailed view of the scenes that pass before us. Our visual system is powerful, versatile and more adaptable than any camera. We also see the world through our eyes in "real time" thanks to this incredibly complex biological visual system.

Film cameras (or even television cameras) cannot come close to giving the quality images that our human visual system provides. That level of technology is still far off in the future. The film in a camera contains light sensitive chemicals that store the variations in light intensity from the scenes that are focused on the film surface by the lens. The camera shutter controls how long light from a scene is exposed to the film. On any particular roll of film, a dark scene requires a longer exposure time (i.e. slower shutter speed) than a bright scene. The slower setting allows more light (photons) to reach the film. If the shutter speed is too long, the film will be overexposed and the image will look washed out. If the shutter speed is too short, the images will look too dark. The cameras used on Apollo could also allow astronauts to let more light into the camera by increasing the effective aperture (F-stop) of the camera.

Daytime on the moon is very odd by earthly standards. The surface of the moon is lit brighter than the brightest tropical white-sand beach, while the sky is simultaneously darker than the darkest beach sky at midnight. This stark contrast in light levels dictates how a photographer must set up a camera exposure setting on the lunar surface. The cameras used on the moon were typically set to a rapid shutter setting for the vast majority of images. 1/250th of a second is one setting that I know was used. The exposure setting determines how long the shutter opens up to expose the film to the light coming through the lens. Even on earth, it requires a shutter speed of at least 9 to 12 seconds length with "high speed" film to capture a star on film. The Apollo astronauts never took any long duration exposures with their Hasselblad cameras during the moonwalks. Therefore, we do not see stars in those Apollo pictures. (The sun is also a star, but I don't recommend pointing your camera at it!) If you open a camera shutter for 12 seconds on the brilliantly illuminated lunar surface, the film would look completely washed out.

This rebuff of the "no stars" claim should encourage hoax believers to take the time to read and learn more about photography, engineering and science. Every one of the long list of hoax claims is bogus. We are all susceptible to falling for faulty claims made about things that we either know really very little about or have forgotten over the years. Old events such

as Apollo make for excellent "conspiracy fodder". Most people alive now, were not even born when Apollo happened. It just takes a little brainwork to see through the deceptions and misrepresentations. People who are old enough to have witnessed Apollo, often have faded memories of the events. Sometimes people blur events from history with things that they have read in science fiction or seen in popular movies. The hoax perpetrators realize that most people are unfamiliar with the technical details of topics such as photography or space science.

There is no shortage of phony experts and pretenders who claim to possess detailed knowledge of "arcane" topics. Always thoroughly check a claimants credentials closely. Everybody on earth can claim to be an "amateur" scientist, physicist, or engineer. A guy who painted launch gantries or worked as a "librarian" in a NASA facility does not necessarily qualify as an "expert" on space science. Ultimately, it is up to you to carefully evaluate the hoax claims and seek out the true facts for yourself. The fact that so many people accept such outrageous and preposterous claims without question, illustrates how dangerous ignorance can be. Equip yourself with the knowledge and skills to become an "expert" in your own right. Please support your local school system so the next generation will not be as vulnerable to hoaxes and unfounded conspiracy theories.

PARTING SHOT



I find it exhilarating that no matter where you go on earth, the destination of humankind's greatest journey can be observed with the unaided eye as it orbits overhead. All of humanity can share and

rejoice in this privilege. A photo like this one can be taken in your own backyard or anywhere on the planet. This ordinary telephoto shot of the moon in the night sky has no stars visible in the background, despite the fact that the moon is indeed in the midst of a star field. The reason: The stars are too dim to show up in this shot made with just low enough of a shutter speed to make the moon show up. The sunlit moon is a relatively much brighter object than the stars that we observe from earth. A photographer would have to overexpose this image of the moon in order to see any of the background star field. That overexposure would ruin the image of the moon, making it look bloated, fuzzy and glaring. We are actually looking at the same lunar surface in this photo that the moonwalkers observed up close! The lunar surface in the photo above is relatively bright in comparison to the stars; even from our earthly perspective 240,000 miles away. Do hoaxers think that all such photos of the moon are also fake?

[Read the extensive hoax debunking page.](#)



WET SAND ON THE MOON?

by Jim McDade

The conspiracy hoax advocates have a significant advantage in that most of us did not get enough in-depth exposure to science in school. The cursory grade school science courses essentially throw a number of scientific laws and principals at students along with a few experiments. School teachers have to cover broad, general scientific topics, but time constraints preclude the kind of scientific experience that would effectively immunize students from pseudo-science hucksters such as the HB crowd.

I have seen a recent revival of the "wet sand" hoax believer (HB) argument from "conspiracy theory" followers. The wet sand argument contends that astronaut footprints and lunar rover tracks would not appear on the moon since the lunar "dust" is devoid of moisture. This particular argument takes advantage of the lack of scientific knowledge about the lunar environment that the that most people share. This hoax argument is based on "intuitive" thinking based on our experiences here on earth when we observe sharply defined tracks in wet sand and no clear tracks in dry sand.

Scientists knew that lunar dust behaved like wet sand years before Apollo went to the moon. Six Surveyor robotic spacecraft landed on the moon prior to Apollo. Those Surveyor probes sent back pictures of small indentations

and trenches created by the Surveyor's robotic "arm" and shovel. The reason that lunar dust behaves like wet sand is quickly understood when we remember that the lunar environment is airless and very, very dry.

On earth dry sand does not "stick together" because the tiny spaces between each grain of sand are filled with molecules of air, water vapor and various other earthly contaminants. The tiny natural electrostatic attraction between each particle of the sand is not strong enough to squeeze the gas (air) molecules out of the gap between the particles. Therefore, dry sand cannot cling together under conditions of the air pressure found at or near the earth's surface. In the airless lunar environment, the electrostatic attraction between the particles takes over and causes the dust to cling together just like wet sand that we see here on earth.

[BACK](#)



Moon Hoax Kooky Cutter: Apollo Conspiracy Hoax Fits an Old Mold

by Jim McDade

NASA recently hired a well known writer, James Oberg to pen a monograph in response to the accusations made by the cranks and charlatans who claim that Apollo 11 never landed on the moon back in 1969. The Apollo hoax story made headlines again recently when a fanatical devotee of the Apollo conspiracy theory accosted one of the former Apollo astronauts. Apollo 11 astronaut Buzz Aldrin had a very unpleasant encounter with Apollo hoax cult leader, Bart Sibrel. Aldrin responded to Sibrel's forceful intrusion upon Aldrin in a California hotel with a stout punch to the chin of that Bible toting, former part-time Nashville TV camera operator. Sibrel has emerged as the symbolic international leader of the anti-Apollo cult. Apollo 12 astronaut Ed Mitchell and the first man to walk on the moon, Neil Armstrong report that they also have had alarming encounters with the overbearing and intrusive Sibrel.

NASA was chided by ABC news anchor Peter Jennings after the agency hired Oberg to investigate the Apollo hoax claims and subsequently present a small book-length discussion of the topic that NASA could use as an "official response document" to the oddball hoax claims. Apparently, Jennings and other journalists hold the opinion that NASA has better things to do with it's money and resources than responding to "lunatics". Oberg will continue researching his book and it will be published by a private company within the next year or two.

The leadership of this Apollo hoax conspiracy cult stirs up memories of past cults that rose to attention with great publicity and spectacular claims, then peaked and subsequently fell into a prolonged stage of fringe notoriety. The UFO "contactees" of the 1950s who claimed to maintain telepathic communication with alien civilizations share much in common with today's Apollo hoax conspiracy leaders. The UFO contactees and Apollo hoax leaders have never been able to offer one scintilla of substantial scientific or legal evidence in support of their claims. However, the UFO cult leaders of the 1950s and the Apollo hoax leaders of the 2000s were able to profit by selling their scam to an under-educated, gullible segment of society through scintillating publications and productions that played to the fear and prejudices of people who maintain a fundamental, but oftentimes warped mistrust of the "system".

The prolific science writer Willey Ley made an earnest attempt to investigate UFO claims while he was writing his book, "SATELLITES, ROCKETS AND OUTER SPACE", back in 1957-58. The 1958 edition of the book included the results of Ley's investigation into the wild UFO claims of the 1940s and 1950s. Ley found that the many claims of alien abduction, sexual encounters with women from Venus, interplanetary ESP, and other bizarre phenomena were completely bogus. Ley observed that the UFO hoax community would always modify recently debunked claims or just invent new fabrications as valid investigations quickly revealed the absurdity of their UFO claims. The UFO story creators quickly learned to become more "sophisticated" in language and demeanor as they successively publicized each new claim. A successful propagandist needs to look and sound credible, after all.

The Apollo hoax community appears to be evolving in a similar fashion and I expect that Bart Sibrel and his hoax conspiracy partners have been boning up on Apollo era acronyms, orbital science and other topics as they prepare the next round of attacks on history.

Willy Ley decided to save ink and expense for the 1962 edition of "SATELLITES, ROCKETS AND OUTER SPACE". Ley dropped the section on "flying saucers" from that revised edition of his book. The author's own explanatory words written back in 1962 seem very appropriate for this new hoax known as the "Apollo hoax conspiracy". Ley wrote, "As regards the elimination of the latter (UFOs) I feel obliged to say that it was not done because I have changed my mind in any way. I still regard the UFO craze that swept the country for a while as an elaborate hoax, prompted originally by a few honest misunderstandings. The reason why this section was eliminated is

(in addition to the need for more space) that talk about flying saucers is now confined to a few diehard cultists and the subject has fortunately ceased to be a public issue."

Ley died in 1969 just as the U.S. space program was coasting home to victory over the Soviet Union in the "moon race" competition that the Soviets immediately denied that they ever entered as they mothballed their lunar lander and other moon program hardware that is now on display in Russian museums. The hard core UFO cult still persisted in the fringes of society during the year of Apollo 11. For years, blurry amateur photos of UFOs were more than enough to convince a small percentage of the population that UFOs were "real". The advent of digital photography has made it more difficult to cook up "convincing" images, but the UFO hoax community has certainly benefited from the new communications channel known as the web and popular TV shows such as the "X-FILES". The web enabled the creation of thousands of new "virtual communities" and the UFO hoaxers certainly did not want to be left out of that powerful new media domain. Ultimately, the hoax craze will subside as society slowly digests the Apollo hoax pulp and decides to put the hoax crowd in the same "rubber room" with the interplanetary telepathic communication "experts". That does not mean that it is not important to have people like Jim Oberg and professional debunker Jay Windley (www.badastronomy.com) respond to the bogus hoax claims. The response to hoax claims and other propaganda is an integral part of that societal sophistication process that a free society needs to properly evolve.

It does not matter if propaganda of any type comes from hoax conspirators or the government itself. All extraordinary claims should be examined by smart people who are equipped with a penetrating intellect and effective investigative techniques. The Apollo hoax boils down to a "conflict of belief" between a very small minority and the guardians of reality and history.

The majority of people believe in Apollo simply because nobody has ever produced a single claim that proves that the entire world, including 400,000 Apollo workers, were somehow brainwashed or hypnotized into participating in a massive charade. The trail of Apollo money is documented in the lives of those workers. The science and engineering of Apollo was proven and is verifiable. The lunar rock samples have been examined by experts from almost every nation on earth. Any legitimate investigator can examine a sample by request. Thousands of professionals have examined those samples and none of them questioned the legitimacy of those samples. Should we reject the historical and scientific fact of Apollo just because some former, part-time television camera operator claims to be an "expert"? If you think so, please seek professional counseling immediately.

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Bart Sibrel Update- The Buzz Aldrin Punch

Apollo moon hoaxer Bart Sibrel finally got a response from Apollo 11 moon walker Buzz Aldrin after several abortive attempts to interview the famous astronaut over the last couple of years. The response for Sibrel was a stiff punch from the athletic 72-year old former astronaut. Aldrin was accosted by Sibrel and a video crew outside of a Beverly hills hotel on Monday, September 9, 2002. Sibrel told Reuters News Service, "I approached him and asked him again to swear on a Bible that he went to the moon, and told him he was a thief for taking money to give an interview for something he didn't do,". Sibrel, who has been arrested himself on one or more occasions, reported the "knuckle sandwich" incident to police with the intention of having assault charges file against Aldrin.

Sibrel's pointed and insulting comment was more than Buzz could stand. Aldrin used his fist to answer Sibrel, venting his frustration against the stalking video producer. Sibrel is in the business of selling his "documentary" video of what he mistakenly thought was "never before seen" Apollo moon mission film footage. Sibrel badly misinterpreted the content of that archival footage and claimed that it was proof that America never went to the moon. However, Sibrel found an audience of devoted "conspiracy theory" devotees who purchased thousands of copies of his documentary since it's release in 2001. Some conspiracy fans still steadfastly cling to Sibrel's hoax "theories" despite the glaring defects contained in that documentary.

Sibrel has had previous confrontations with Aldrin as well as the first human to walk on the moon, Neil Armstrong. The wife of famous Huntsville Apollo rocket pioneer, Konrad Dannenberg attended a debate between a space exploration advocate and Sibrel in 2001. A sprinkling of Sibrel supporters at that debate encouraged Sibrel although they occasionally asked the hoax advocate to venture into the areas of UFO's, ghosts and bizarre metaphysical matters. When confronted by historical and technical facts concerning Apollo, Sibrel went into his very emotive conspiratorial spiel and at one point called Neil Armstrong a liar. Jackie Dannenberg said that Sibrel's "wild" comments angered her to the point that she had to leave the meeting room before she lost control of her temper. Konrad Dannenberg, who remained seated during the debate was "puzzled" that any rational, "thinking person could possibly accept Sibrel's faulty claims".

It is not known if Sibrel charged TV network ABC or others for video of the incident that he provided to news departments.

The response to Sibrel's confrontational tactics is under fire from many in the media and many negative public comments from space oriented e-mail groups appear to support Aldrin's choice of "action rather than words". Sibrel was the butt of jokes and humor on one U.S. syndicated morning radio show following the incident.

This is apparently not the first time that Sibrel has used a devious tactic to gain an interview with an astronaut. It is also not the first time that he received an "energetic" response from his victim. I asked Apollo 14 Lunar Module Pilot Ed Mitchell about his own encounter with Sibrel. Mitchell answered, "Sibrel faked his way into my home with false History Channel credentials for an interview. After about 3-4 minutes, he popped the bible question. Realizing who he was, I

maintained my cool enough to swear on his bible, then ended the interview and tossed him out of the house, with a boot in his rear."