LBJ's Space Race: What We Didn't Know Then

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Few people today realize or remember, but a single man, Lyndon Baines Johnson, "LBJ", is primarily responsible for both starting and ending "The Space Race".

In 1957 and 1958, Johnson, then Senate Majority Leader and leader of the Democratic political opposition to Republican President Dwight Eisenhower, created such a controversy over the USSR's launch of Sputnik that Eisenhower was forced into a public space race he didn't want. That race led to the amazing accomplishments of the next ten years, including the first human landings on the Moon.

Almost a decade later, Johnson was forced to virtually shut down the program he had worked so hard to sell to the government and to the public. In 1966 and 1967, by then President Johnson desperately needed to cut expenditures to pay for the escalating Vietnam War. So he proposed to the leaders of the Soviet Union that they agree to a treaty, which became the 1967 Outer Space Treaty, to eliminate the key prizes to be won in the space race, especially the right of either nation to claim the Moon. That allowed both sides to move expensive space development to the back burner – where it has stayed ever since.

The Missile Race -- Prelude to the Space Race

The story really starts in the aftermath of World War II when The U.S. and the USSR each grabbed half of the German rocket program and launched vigorous rocket programs of their own. The U.S. had bases in allied countries surrounding the USSR, from which they could, if they ever needed to, launch a massive nuclear air strike. The USSR had no bases near the U.S., however, so the USSR needed much bigger, longer range rockets than the U.S. did.

While the Soviets could get all the intelligence they wanted from Communist agents in the U.S.'s open society, the U.S. had a desperate need for intelligence about what was going on inside the USSR's closed society. Most particularly, the U.S. wanted to know how the Soviet nuclear and ICBM programs were doing. The U.S. first tried sending high altitude balloons over the USSR and then high altitude air planes such as the U-2, but the balloons went where the winds took them so they could not be directed to collect information about specific targets. The U-2 solved that problem, but its big weakness became all too obvious on May 1, 1960 when the U-2 piloted by Francis Gary Powers was shot down. Powers was held in prison for two years until 1962, when he was exchanged for Soviet Col. Rudolf Abel in the most dramatic East-West spy swap of the Cold War.

Even in the late 1940's and early 1950's, long before Sputnik, the RAND project, the key government think tank, was secretly recommending to the U.S. government a major effort to design a man made satellite that would take photographs from space - and the rockets to put such a satellite in orbit. In December, 1953, the U.S. Air Force pulled together all its various satellite efforts into a single program known as WS 117L. In October 1956, the Lockheed Aircraft Corp. got the first WS 117L production contract. But a big diplomatic problem associated with aerial surveillance worried President Eisenhower and held back the spy satellite program.

The Soviet Union loudly protested that U.S. "weather research" balloons were floating across their territory even though the altitude of the balloons was a very high 80,000 feet. The protest was based on the then current "ad coelum" theory that a nation's sovereignty extends above its territory "to the heavens". (New York Times, Sep. 14, 1959, pg 1). Obviously, such objections would apply even more to any spy satellites that were to go over the Soviet Union every hour and a half, on a clearly predictable schedule.

Sputnik, A Soviet Blunder?

But then, on October 4, 1957, the Soviet Union – as part of the "International Geophysical Year" - used one of those big ICBM rockets it had been developing to launch Sputnik 1, a 184 lb. aluminum sphere that did little more than emit radio beeps. Eisenhower was secretly thrilled! Now the U.S. could go full steam ahead on its top secret spy satellite project, then called "Corona". By being the first to launch a satellite, the Soviets had lost their ability to object diplomatically.

But Eisenhower was in an awkward position. He couldn't very well crow about what he saw as a Soviet blunder – because the very idea of spy satellites was still one of America's biggest secrets.
So he just tried to brush off the launch of Sputnik as no big deal. As the NY Times put it on Oct 13th, (way back on page 181): "President Eisenhower expressed no alarm over the incident." and added that "this country has never been in 'a

race'". Even the Russian leader, Nikita Khrushchev, made light of Sputnik's significance. The same Times article reported that, when asked if he had witnessed the take-off, Khrushchev replied:

> "No, I didn't see it. When the satellite was launched, they phoned me that the rocket had taken the right course and that the satellite was already revolving around the earth. I congratulated the …engineers and technicians …and calmly went to bed."

The Washington Post, (Oct. 10, 1957, pg A14), ran an article on the President's position headlined "On Refusing to Race".

Clearly, both Eisenhower and Khrushchev expected Sputnik to have its 15 minutes of fame and then fade to a footnote in the history books.

Firing Up the Space Race

Lyndon Johnson changed everything. At the suggestion of George Reedy, Staff Director of the Democratic Policy Committee, (who in a 1992 Oral History interview with John Logsdon credited a retired Senatorial aide named Charles S. Brewton for the original idea), Johnson started making a fuss about Sputnik and its implications for U.S. security.

According to Robert Divine's "The Johnson Years", Reedy sent LBJ a long memo, urging him "to plunge heavily into this one". Besides being very good politics for LBJ and the Democrats, Reedy said "The Russians have left the earth, and the race for control of the universe has started." Reedy argued the nation that could conquer outer space would dominate the world of the future. "This may be one of those moments in history," said Reedy, "when good politics and statesmanship are as close to each other as a hand in a glove."

Johnson, recognizing the political opportunity, jumped in with both feet.

The New York Times for November 23, 1957 (pg 7) headlined "Johnson Outlines Broad Agenda for Senate Inquiry on Missiles", and "Hearing to Open Monday to Stress Need of Speed."

The article was referring to planned hearings of the Senate Armed Services Committee's especially re-activated Preparedness Subcommittee – which Johnson, although he was the Majority Leader of the Senate, was planning to actually chair himself. "As chairman of the inquiry, the Senate Democratic leader reported that it would cover such matters as 'our record of consistent underestimation' of the Soviet program, the Government's 'lack of willingness to take proper risks'".

Only a month earlier, President Eisenhower had said the U.S. was not in a space race – and is supposed to have commented, "Lyndon Johnson can keep his head in the stars if he wants. I' m going to keep my feet on the ground." But Johnson was going to force Eisenhower into a space race, whether the President liked it or not.

Beware the "Masters of Infinity" - the Space Race Is Born

By the time the hearings finished six weeks later, on January 8, 1958, even the New York Times was using the "Space Race" phrase. Their headline that day read "Text of Johnson's Statement on Status of Nation's Defense and Race for Space".

The Washington Post that day, headlined "Free World Must Control Space, Johnson tells Senate Group".

In his subcommittee' s detailed summary statement Johnson proclaimed that our very future depended on being the ones who first seized ownership of space. "Control of space means control of the world," Johnson declared.

> "From space, the masters of infinity would have the power to control the earth' s weather, to cause drought and flood, to change the tides and raise the levels of the sea, to divert the Gulf stream and change temperate climates to frigid."

Johnson continued:

> "In essence, the Soviet Union has appraised control of space as a goal of such consequence that achievement of such control has been made a first aim of national policy." [In contrast], our decisions, more often than not, have been made within the framework of the Government's annual budget. Against this view, we now have on record the appraisal of leaders in the field of science, respected men of unquestioned competence, whose valuation of what control of outer space means renders irrelevant the bookkeeping concerns of fiscal officers."

Those words and that sentiment – that control of space was worth busting the budget for – led to the tremendous increase in space spending in the years ahead, and the wonderful accomplishments that spending paid for. But those words may well have come to haunt Johnson when, as we shall see, he personally led a reversal of that course less than a decade later.

There is another point worth making about Johnson's statement. After the space race ended, some people tried to pretend that the reason for the race had been only the question of "national prestige". But nowhere in his lengthy and detailed subcommittee statement summarizing the risks of Soviet dominance in space did Johnson so much as mention the question of national prestige! To him, and the Congress he led, the issue was entirely who would win and own outer space. As Johnson put it bluntly, if it weren't for the importance of controlling space then we "might dismiss the sputniks as play toys."

Missiles from the Moon, the Ultimate High Ground

On it's front page of January 29, 1958, the Washington Post headlined "Expert Sees Moon As Rocket Base". It said,

> "The Air Force's top space expert predicted yesterday the moon will be a rocket base for either Russia of the U.S. within 10 years. Brig Gen Homer A. Boushey, deputy director of Air Force research and Development said the moon will provide a 'base of unequaled advantage' for raining 'sure and massive destruction on earth.'"

The General said "he fully supports the view that 'he who controls the moon, controls the Earth.'"

The widely respected foreign affairs expert C. L Sulzberger wrote an analysis on Bousey's views in the Times, on Mar. 24, that concluded,

> "Such concepts are fantastic but no longer fanciful. And their potential military implication is immense. Manned platforms in outer space or missile ramps upon the moon would give the controlling nation a seemingly overwhelming advantage from which to dictate."

How could Congress not give the Space Race whatever funding it needed?

The U.S. Plays Some Serious Catch Up

On January 21, 1959, the first attempt to launch a rocket designed to carry the Corona spy satellite, (called Discoverer 1 to hide its real purpose), ended in failure 60 minutes before blast off. Twelve more tries, generally failures of one sort or another, followed. But, perhaps spurred on by Johnson's pressure, Eisenhower stuck with the program. Finally, on the fourteenth try, August 19, 1959, the first fully successful Corona mission, Discoverer XIV, was launched, with almost no public fanfare.

The returning capsule, containing 20 pounds of film and suspended from a parachute, was snatched from midair by an Air Force C-119 aircraft. That first successful Corona satellite, alone, returned more photos of the Soviet Union than the 24 combined U-2 spy missions and the images, although fuzzier than U-2 photographs, cover areas of the Soviet Union never reached by the spy planes. On December 10, 1959, the 18th Discoverer achieved the second truly successful mission and returned 39 pounds of film filled with images from an improved camera, the KH-2.

Still the U.S. continued to lag behind those big Soviet ICBM rockets. On January 4, 1959, the Soviet's Luna 1 made the first lunar fly-by. On September 14, 1959, Luna 2 was the first spacecraft to hit the surface of the Moon. The first U.S. spacecraft to hit the Moon, Ranger 4, wasn't launched until April 23, 1962, two and half years after Luna 2 did it.

The U.S. Fears the Soviets Might Claim the Ultimate High Ground

All these Soviet successes prompted significant fears that the Soviets might actually claim ownership of the Moon!

On March 7, 1959, six months before Luna 2 actually hit the Moon, the New York Times published an article headlined: "U.S. Bars Haste on Moon Claims". It said: "The State Department's legal adviser said today that the Soviet Union would have to do considerably more than "stick a Red flag in the ground" to be able to claim sovereignty over the moon." The State Department's Loftus Becker told the House Select Committee on Astronautics and Space Exploration that "there is considerably more to establishing sovereignty than" planting a flag and that "a large body of law already existed, which, could be expected to govern man in space just as it did on earth." Presumably, although he didn't actually say so, this meant that the State Department believed the Soviets would actually have to put a man on the Moon to claim it.

The Soviets seemed to be in no mood for such arguments. The State Department expert added that "the Soviet Union, so far had shown no signs of cooperation" in reaching an agreement on just what was required to establish sovereignty, and, in fact, the Soviet Union had indicated it would boycott the upcoming UN Space Law Committee's discussions of the subject.

On September 14, 1959, when the Soviet's Luna 2 did hit the Moon, the Times ran a front page article headlined "U.S. Rejects Any Flag-Planting As Legal Claim to Rule Moon". Although the U.S. believed planting a flag wasn't enough, it said, "John M. Raymond, deputy legal advisor to the State Department said in Washington yesterday that the United States had 'no views on how far you would have to go' to claim moon sovereignty, as yet".

William A. Hyman, a prominent space lawyer was quoted as saying that, although they had previously taken a different position "it would not be surprising to hear [the Soviets] say that if the satellite made physical contact with the moon, they would then claim they had extended sovereignty to the lunar sphere." However, he added, "'the civilized world' has largely adopted the attitude set forth by Secretary of State Charles Evans Hughes in 1924 that there must also be occupation with an intent to make it permanent."

Lyndon Johnson campaigned for the Democratic Presidential nomination in 1960 but had to settle for the second slot behind John F. Kennedy. Their big issue was "The Missile Gap" – the charge that the Eisenhower administration had cut military spending so much that they had allowed the Russians to get far ahead of us in missiles and space. Eisenhower offered to give Kennedy a secret intelligence briefing on why that really wasn't such a problem, but Kennedy declined – and won the election. "The missile gap" issue somehow disappeared after the election.

As Vice President, then President, Johnson Nurses the Space Race

Once President, Kennedy put Vice President Johnson in personal charge of the space program.
By all accounts he took the job seriously and was a very good manager of it. The only significant black spot was the persistent but possibly unfounded rumor that he made a personal fortune on land deals related to the establishment of the Manned Spacecraft Center (now called the Johnson Space Center) near Houston, in his home state of Texas.

In May, 1961, shortly after the first American in space, Alan Shepard, finished his sub-orbital flight, President Kennedy, with strong support from Johnson, committed his nation to being first on the Moon. Lyndon Johnson became President on November 22nd, 1962, when Kennedy was shot, and won reelection on his own in 1964. Of course, as the founder and head cheerleader of the Space Race, Johnson continued Kennedy's dedication to the moon landing, saying "I do not believe that this generation of Americans is willing to resign itself to going to bed each night by the light of a Communist moon".

Under Johnson' s full backing as President, the space program thrived, and, nourished by the competitive space race, accomplished amazing and wonderful things for all humanity during those years.

Until 1966.

The 1967 Outer Space Treaty - the Antidote for Vietnam Expenditures

Kennedy had gotten involved in the revolution in Vietnam and leaving the resulting mess to Johnson, who got sucked in deeper and deeper. LBJ was in a terrible dilemma. He knew he couldn't win in Vietnam, but he also knew he couldn't quit, because the political consequences of losing were too great. So the stalemate in Vietnam just kept getting worse, and more and more expensive.

Johnson didn't want to give up his Great Society programs, and he didn't want to raise taxes, so he absolutely had to cut everything else – and the space race was a big fat money pot. As with the war in Vietnam, the consequences of losing the Space Race were also unacceptable. Remember, to LBJ we were in a desperate race to see who was going to own space – free men or the tyrants of the USSR – and the future of the world depended on making that come out right.

He had tried to negotiate a compromise in Vietnam, but couldn't get the other side interested. So he looked for a compromise in the space race, instead – and there, probably to his surprise, he succeeded. It was early 1966, and the U.S. was gaining but still hadn't quite caught up to the Russians in space. In one sense, it appeared the Soviets were about four months ahead. On January 31, 1966 the USSR launched Luna 9, which made mankind's first soft landing on the Moon. America's first soft landing came four months later, with Surveyor 1, on April 30, 1966.

Information that has come to light only since the end of the cold war reveals that the Soviet's manned lunar landing program was actually in very big trouble and on the verge of failure. Then, the ultimate disaster hit. Sergey Korolov, the Soviet's genius rocket designer, the super-secret "Chief Constructor" behind all the Soviet's space successes, the one

man who might have made their troubled N1 Moon rocket work, died during colon surgery in Moscow on January 14, 1966. But the U.S. did not know that at the time. Johnson's intelligence services were telling him the Soviets were on track to reach the Moon.

Because of that lack of intelligence, the administration had to assume that, if it cut space spending to pay for Vietnam, it might well lose the Space Race. The question became how to keep the other side from using that victory to gain control of space. So Johnson offered the Soviets a deal for mutual renunciation of the prizes to be won: no nuclear weapons in space, and neither country claims ownership of the Moon, regardless of which nation gets there first.

He must have been pleasantly surprised when the Soviets accepted, since he didn't realize they too were now worried about the consequences of losing the race to the Moon. LBJ had no idea of the significance of the death of Korolov, if, indeed he' d ever heard the name, but Khrushchev certainly understood – and unlike the US, the USSR could easily keep tabs on how their opposition was doing so they knew the US was doing better than they were.

The result was the "Treaty on Principles Governing the Activities of States in the Exploration and Use of Outer Space, including the Moon and Other Celestial Bodies (referred to simply as the Outer Space Treaty), negotiated directly with the Kremlin by Johnson's personal representative, former Supreme Court Justice and UN Ambassador Arthur Goldberg, and only later shown to the UN in its final form to be ratified by other nations.

Of course, Johnson didn't say publicly that the reason for the treaty was so he could cut space spending to pay for Vietnam, so how do we know that was the reason?

The Smoking Gun - the LBJ Library Gives Up Its Secrets

I spent many hours in the LBJ Library in Austin, Texas looking for the proof. Arthur Goldberg's recollections provide clues, but the real smoking gun was in a 1966 State Department policy document which was secret until 1985, and then only partially declassified. A Freedom of Information Act request was required to get to the rest.

The document is titled "Space Goals After the Lunar Landing" and was written under the direction of Assistant Secretary of State Henry Owen, the then Chairman of the State Department's Policy Planning Council.

It starts out: "Even before the outcome of the moon race has been decided, we face the question of whether to commit ourselves to … proceeding with manned exploration of the moon after the initial landing." "The advanced stage of Apollo development and the lead time requirements of possible follow-on programs make it necessary to consider future space goals at this time."

The following are all selected quotes from that paper, laying out the views of a key part of the Johnson administration, and quite possibly the President himself: Note: all underlining is as it was in the original paper. I have bolded the sections I consider most significant to this discussion.

- "If we can de-emphasize or stretch out additional costly programs aimed at the moon and beyond, resources may to some extent be released for other objectives which might serve more immediate, higher priority interests."

- "Whether our over-all space effort can prudently be conducted at a more deliberate pace in the future may depend in part on de-fusing the space race between the U.S. and Soviets. We should consider the desirability and feasibility of this objective."

- "Instead of indefinitely extending the space race, it would be preferable to work toward De-fusing the space race between the U.S. and Soviets."

- **"International agreements defining rules for space, {such as} the proposed celestial bodies/outer space treaty are pointed in this direction."**

- "In seeking to de-fuse the space race, several types of arrangements with the Soviets might be considered: {first} Joint U.S.-Soviet conduct of major space exploration programs looking toward eventually placing such efforts on an international basis. "

- "Coordinating national efforts with a view to limiting pressures for racing toward new goalposts deep in space."

- "For example, a Manned Orbital Research Laboratory might serve scientific purposes and also open the way for some degree of international cooperation in manned spaceflight"

- **"The effect, although not the explicit purpose, might be a tacitly agreed pacing or slowdown of some of the more costly ventures. "**

How prophetic those words were, especially the last two points, written in 1966! Indeed, we did get the "Manned Orbital Research Laboratory" referred to in that memo. Now, close to four decades later, we have the International Space Station instead of real efforts to explore and settle the Moon and Mars. Just as those who wanted to de-fuse the Space Race hoped, international cooperation allowed them to "release" resources for the things they wanted instead. Although no one has ever admitted that it was the space station's "explicit purpose", it certainly has kept us distracted from those "more costly ventures".

The following quotes from the document illustrate the fact that the Johnson administration did not have accurate intelligence about just how badly the Soviet's Moon program was actually doing in 1966:

> "Is there any chance (before the moon race is decided) of interesting the Soviets seriously in the possibility of curtailing the race in the future? The answer to this question is probably "no", but we can ourselves begin to do the planning needed to support that objective. Moreover, we can begin to adjust our own programmatic goals accordingly.
>
> "We have to anticipate that the Soviets will not only place additional emphasis on competing in practical applications, but will also continue to view space spectaculars as a useful psychological tool. **They probably do not plan to stop at the moon.**
>
> "It is conceivable that a psychological premium may be placed on the capability of operating in space even if cost/effective weapons applications do not materialize.
>
> "{Therefore} it is difficult to see the Soviets agreeing to any such arrangements now."

In that, of course, the authors of the paper were wrong. That's why I believe they must have been very pleasantly surprised when the Soviets did, in fact, agree to "curtail the race".

By the way it is interesting to see, now, what the those who declassified the rest of the report in 1985 felt was too sensitive to declassify even then, almost twenty years after it was written. The following section was completely blacked out in 1985 until I got it released in 1998 by a Freedom of Information Act request.

> "It can be argued that this {de-fusing the space race} might prove disadvantageous -- especially if Soviet resources were thus freed for military programs. Although we cannot be sure how such resources would be allocated, four considerations tend to vitiate the argument that we would be better off keeping the Soviets "diverted" into space.
>
> First, extending the space race might itself contribute to military potential; measuring this effect would be especially difficult in the Soviet case since their single space effort covers both military and civilian purposes. Second, the Soviets can, in any event, be expected to give priority to whatever they may consider essential for defense. Third, given the strained situation of the Soviet economy, there is a good chance that at least a part of any freed resources would find its way into the civilian sector. **Finally, although our own economy is far stronger, we are also confronted with problems of resource allocation**. In the final analysis, we can' t really "divert" the Soviets without to some extent "diverting" ourselves."

Cover Memo Sums It Up - "It Will Save Money"

Perhaps most damning all is the cover memo for the classified document that Henry Owen sent to Walt Rostow, Johnson's hawkish Special Assistant for National Security Affairs, the post now known as National Security Adviser, which boils down the reasons Owen and his associates felt the Space Race must end and what it would take to end it :

> "the final draft of our space paper is being distributed to members of the Space Council - McNamara, Webb, etc. The Vice President wishes it to be discussed at the Council.
>
> It will encounter strong opposition from NASA and Ed Welsh, the secretary of the Space Council.

Nonetheless, I believe it right {because} it will save money, which can go to foreign aid and domestic purposes - thus mitigating the political strain of the war in Vietnam.

If the proposals in this memo are left to be fought out by the space marshals and their clients, we will lose. Therefore I urge you to get into the fight personally - let the Vice President, Schultze (Bob), and others know how you feel. Send a copy to someone on the domestic side of the White House staff to ensure that someone from that side representing the constituency whose interests are most directly affected, gets into the fight.

Henry Owen"

Of course, they did win.

The Legacy

Significantly, space funding increased every year, in both the U.S. and U.S.S.R., until the passage of the treaty in 1967, and then decreased every year thereafter. LBJ barely managed to preserve the Moon landing itself, but he effectively killed all the wonderful things that were planned to follow it. Just like in Antarctica, the prohibition on claiming land succeeded in stopping serious development in its tracks. For 38 years, space development and particularly the technology to allow humans to travel to and from the Moon and Mars safely, reliably and affordably, has gotten lip service but very little serious advancement.

We need to find a way to restart a race to space. This time it won't be for military reasons like the race that LBJ started and ended, but it could be for the reasons of private enterprise: the chance to make a profit.

If those of us who want space developed, - who don't want it kept like Antarctica - ever hope to change that situation we must find a way to remove or get around the prohibition on land ownership in space.