

Row Crops to Rocket Ships: How the Arrival of NASA Helped End Segregation in the South

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As the Cold War pressed forward during the twentieth century, the ideals of the Space Race conflicted with the segregation issue in the Southern United States, particularly in Alabama. Huntsville, Alabama housed a cornerstone of space travel, the National Aeronautics Space Administration (NASA). Upon the arrival of NASA, Huntsville fit the stereotype of many Southern towns. By the mid-1960s, the city looked different from many towns across the state. The arrival of the federal agency brought economic development to the city. However, the government would only allow NASA, and thus the newfound prosperity, to remain in Huntsville if the city integrated. This paper examines the impact the federal agency's arrival had on the desegregation of Huntsville.

At the conclusion of World War Two, members of the German Armed Forces understood capture by either the United States or the Soviet Union was imminent. For many, a future in America sounded more promising than one under the Soviet yoke. Many Germans felt that if they had to pick a side, choosing the United States would be the better option. That is exactly how a group of German engineers and scientists felt, who developed a plan that would ensure their capture by the United States Army. After surrendering to the United States, over one hundred engineers, led by Wernher von Braun, arrived on the west side of the Atlantic. They began working in New Mexico, then Texas, as the team shared their knowledge of working with missiles and rockets with the United States Army. By 1950, the team was transferred to Huntsville, Alabama; a place few people knew about, but which soon became vital to the United States' Space Program.¹

In 1950, Huntsville fit the stereotype of many Southern towns. The German scientists arriving there believed that residents walked around barefoot and that moonshine was the drink of choice for breakfast, lunch, and dinner.² The most noticeable mark of southern influence, however, was segregation. African Americans attended different schools, worshipped at different churches, and went to work at different jobs than white people. Though African-Americans had easier access to jobs than years before, Jim Crow laws continued to pervade the South. The arrival of the German engineers and creation of the National Aeronautics and Space Administration (NASA) set Huntsville on a track different from towns across the South. As a result, the city modernized and desegregated quicker than other towns in Alabama due to the

¹ John Noble Wilford, "Wernher von Braun, Rocket Pioneer, Dies," *New York Times*, June 18, 1977, 49.

² Shaila Dewan, "When the Germans, and Rockets, Came to Town," *New York Times*, December 31, 2007, A11.

influx of scientists and engineers. Before Birmingham, Mobile, or Montgomery, white public elementary schools admitted black students without much chaos. After continuous opposition from local authorities, Governor George Wallace relented on the issue of segregation, but only in Huntsville. Other cities in Alabama remained segregated.³

What was the relationship between the beginnings of the Space Race and the end of segregation in Huntsville? The answer lies in the prosperity the arrival of NASA brought to the city. Continued segregation risked the removal of the program that generated the upswing in Huntsville's economy. The arrival of a national program in Huntsville brought a new audience to the city. To better their reputation nationally, the city leaders of Huntsville put an end to segregation. Prior to 1950, Huntsville had a textile market that relied on cotton to generate income. The arrival of NASA and the German engineers began to industrialize the economy. The development came with astronomy, missiles, and defense, bringing a level of production unlike anything the city had witnessed before. Over \$650 million had made its way into the Huntsville economy, and the federal government threatened to uproot the main provider of those investments, NASA, if segregation continued.⁴ The threat of removal in the face of segregation put the lifeblood of the city on the line. The city would lose investments and tax dollars that revitalized its economy during the 1950s and 1960s. Advancing the status of African Americans therefore safeguarded the program that made Huntsville economically prosperous.

NASA was a part of a national effort to elevate scientific education in the South. Southern universities, primarily in Georgia, Florida, and Alabama, supporting scientific research received much, if not all, of their funding from NASA. The need to establish a school for future scientists and engineers in the space program resulted in the establishment of the University of Alabama-Huntsville. When the university opened in 1950, most of Huntsville's scientific opportunities came from Operation Paperclip's arrival in the city. A research institute and the Marshall Space Flight Center was still ten years away from opening.⁵ Historians have analyzed the federal investment in education and housing in the South.⁶ How government programs such as NASA affected segregation in the South has received minimal analysis. Few historians have conducted research on how industrial economic advances, stemming from NASA's investment, impacted race relations in the South.⁷ Through a science program, the federal government curbed the problem of segregation in Huntsville by bringing economic development to the city, then ensured its continuation by threatening to move elsewhere.

The federal government worked to end segregation in the South because of the reputation the practice gave the United States.⁸ In trying to spread democracy, the US argued leaders of Communist states suppressed their population, but democracy ensured freedom. New countries around the globe, including the Soviet Union, used the race issue in America to question the US government's position as the defender of

³ Robert E. Baker, "Negro Students are Admitted in Huntsville," *The Washington Post*, September 10, 1963, A1.

⁴ Edward C. Burks, "Huntsville, Ala., Spurning Racism: Space City Puts Economics Ahead of Segregation," *New York Times*, May 23, 1965, 56.

⁵ Bruce J. Schulman, *From Cotton Belt to Sunbelt* (New York, NY: Oxford University Press, 1991), 148.

⁶ Matthew L. Downs, *Transforming the South* (Baton Rouge, Louisiana: Louisiana State University Press, 2014), 2-3;10-11.

⁷ Downs, *Transforming the South*, 206-243.

⁸ Papers of John F. Kennedy. Presidential Papers. National Security Files. Subjects. Civil rights: General, June 1963: 11-14.

liberty.⁹ Propaganda from the Soviet Union saturated foreign countries' newspapers and media to discredit the US in whatever way they could. They went so far as to print a magazine cover depicting the Statue of Liberty hanging an African-American.¹⁰ The Soviets used such images to highlight the paradox of segregation in American South and freedom. According to the Soviet Union, liberty could not be provided by the United States to people across the globe based on their treatment of African-Americans in the South. Continued segregation in the South meant no end anytime soon to the propaganda. The US government had to address the race problem to protect the reputation of the country and end negative media across the globe.

What are the implications of the federal government introducing NASA as a developer to the South? The biggest involves the federal government using agencies, such as NASA, to reverse prevalent problems in the South. Huntsville, prior to the arrival of engineers and scientists, relied on agriculture for its economy. After NASA arrived, this agrarian economy shifted from a city of cotton pickers to a city that influenced space travel and developed a thriving, industrial economy. The process the city of Huntsville underwent demonstrates the success of the agencies as developers. Prior to the creation and in the early years of NASA, the Kennedy Administration opposed segregation and made their opinion known to many people in Alabama.¹¹ With the success of desegregation in Huntsville, the federal government achieved its goal of weakening segregation in the South. This paper examines how Alabama's racial tensions affected Huntsville before NASA and how the city changed after its introduction.

Huntsville Before the Space Program

The stain of racial issues and racial inequality on the United States existed since the colonial era. After the transfer of thousands of African slaves to the Americas, the brutality of slave-owners set the tone for how African-Americans would be treated for over 200 years. Although this problem existed in the North, the Southern towns that relied on slavery for sustaining their economy dealt the harshest blows to the African-American community. Reconstruction ended slavery officially, but divisions in the South continued. Segregation maintained the societal hierarchy of slavery, separating African-Americans and whites. The Supreme Court decision in *Plessy v. Ferguson* in 1896 legalized segregation and led to "separate, but equal" laws throughout the Southern United States. Blacks could not swear on the same Bible as whites, they had a curfew in Mobile, Alabama, and in some places they could not play a game of cards together.¹²

During the twentieth century, segregation held high priority in Alabama politics. Between its inception and decline, every governor and city government held strong opinions. For many people, it was understood to be a part of life. No changes were needed because that was just the way things were. Governors ignored segregation in their vocabulary until 1943, when incoming Governor Chauncey Sparks said racial segregation and independent racial development would lead to

⁹ Richard Lentz and Karla K. Gower, "Introduction" in *The Opinions of Mankind: Racial issues, Press, and Propaganda in the Cold War* (Columbia, Missouri: University of Missouri Press, 2010), 1-15.

¹⁰ N. Kogoyut, "In God's Country," *Bezbozhnik u Stanka*, November 17, 1930, 1.

¹¹ Alvin Spivak, "Kennedy Vows Force If Needed at Alabama; Says He Has 'No Choice' If Pressed," *The Atlanta Constitution*, May 23, 1963, 1.

¹² Skip Mason, "Ruling in *Plessy v. Ferguson* Ushered in Jim Crow Era," *Atlanta Daily World*, Feb. 28, 1999, 6.

racial equality.¹³ When the federal government tried to help the African-Americans, officials in the state government stalled as long as possible to pass new legislation supporting segregation. In one case, representatives “burned the midnight oil” in an effort to pass a bill reducing the jury service in which African-Americans could participate.¹⁴ Alabama politicians went to extreme lengths to protect segregation which devalued and degraded so many of their citizens. At the forefront of the state’s culture, segregation existed and thrived.

Coupled with Southern politics, the prominence of the textile industry contributed to the endurance of segregation in Huntsville. The city’s economy relied on the cultivation of cotton, as well as the production of fabric. By the 1940s, African-Americans in the North received high- ranking jobs in the textile industry. Across the South integration in the cotton mills occurred at a slower than normal rate. In some cases, over twelve years passed between organized union drives to integrate the textile industry. More often than not the drives failed, leaving this line of work fully segregated.¹⁵ The importance of the textile industry to the Huntsville economy created an acceptance of segregation in the city prior to the arrival of the NASA.

Like they would later do with the implementation of NASA, the federal government tried to develop the South in the first half of the 1900s via federal programs. In 1933, President Franklin Roosevelt implemented the Tennessee Valley Authority (TVA) to handle problems such as flooding, power, and erosion in the South.¹⁶ Although TVA located their headquarters in Knoxville, Tennessee, economic advancement spanned throughout the South, including Alabama. Many factors contributed to the growth of the economy during the early years of the federal program, but residents of the Tennessee Valley credit the TVA for the success.¹⁷ The economic development brought on by the TVA gave support to the federal government’s idea to invest in the South by implementing governmental agencies. Had this previous experiment contributed nothing to the Southern economy, the federal government would have had few reasons to put an agency vital to the Cold War in a rural, Alabama city.

Civic programs arrived and helped the South, but defense spending also contributed to develop Alabama in the form of Redstone Arsenal. Built in 1941, the government used the Arsenal as a chemical weapons plant in response to the increasing role of the United States in WWII. Many residents of Huntsville reaped the benefits of bringing a large government production to town. Over ten thousand civilians received jobs at the Arsenal, and hundreds of thousands of dollars poured into Huntsville’s economy.¹⁸ The success of the Arsenal during WWII alluded to the economic impact defense spending could bring. Before the arrival of the German engineers and before realizing the role Huntsville would play in the Cold War, Redstone Arsenal gave the residents of the city a connection to defense. Government officials would remember this when deciding where to base their operation for creating missiles to use against the Soviet Union.

¹³ “New Alabama Governor Urges Equal Rights, But Segregation,” *New York Amsterdam Star-News*, January 23, 1943, 1.

¹⁴ WM W. Ellison, “Alabama in Move to Block U. S. Court Order: Legislature gets new Jim Crow Action,” *The Chicago Defender*, May 11, 1935, 2.

¹⁵ The Associated Press, “South’s Industry Grows Rapidly, But She Escapes Wide Labor Strife,” *The Atlanta Journal and the Atlanta Constitution*, June 28, 1959.

¹⁶ Tennessee Valley Authority, “The 1930s,” *Tennessee Valley Authority*.

¹⁷ Tully Nettleton, “TVA Brings New Prosperity to Grateful Region,” *The Christian Science Monitor*, November 6, 1948, 1.

¹⁸ Downs, *Transforming the South*, 180-186.

In the South, being a federally supported organization did not preclude a program from segregating. Before the *Brown v. Board of Education* decision, the federal government held equal blame for the continuation of segregation. Federal agencies kept to the idea that black workers were unskilled, and tradition trumped morality. The TVA, a program that promoted economic development, prohibited African-Americans from working administrative jobs, and allowed very few to work in construction.¹⁹ This reality demonstrated a failure of government programs: development for a region or a group did not necessitate the advancement of all. The government was more concerned with bringing the South up to economic par with the rest of the United States than ensuring equality for all citizens of the county. As time would show, the federal government's position on segregation changed, but the South remained steadfast in its support of the segregation.

Prior to NASA arriving in Huntsville, tense racial relations existed. The city operated in a state that showed no regard for the equality of African Americans. As such, the plight of African Americans in Huntsville was as bleak as in other parts of the South. The earlier introduction of the TVA and Redstone Arsenal gave residents of Huntsville opportunities to see the advantages of federal investment. The Soviet Union used segregation to damage the United States reputation. In the Cold War, giving the Soviet Union any ammunition to criticize the US could invite trouble for the American cause. As a result, the federal government decided to attempt to end segregation with the arrival of NASA in an Alabama city.

Huntsville and the Arrival of the Space Program

At the conclusion of WWII, Redstone Arsenal closed, and the economy of Huntsville reverted to the prewar state. The arsenal did not remain closed for long, however, because by 1950, a group of German engineers and scientists led by Wernher von Braun arrived in Huntsville to develop missiles and rockets. These missiles and rockets were to be prepared in case of an attack by the Soviet Union. The objectives of Operation Paperclip shifted, when on October 4, 1957, the Soviet Union launched the first artificial satellite, Sputnik. No longer did America lead the world in education and technology, and the government needed to take action to assert American dominance over the Soviet Union. Developing Wernher von Braun's original plan for space travel, using missiles to defeat the enemy in warfare became secondary; beating the Soviet Union beyond the earth's sphere was the purpose. With this goal in mind, the programs and factories in Huntsville began transforming to revitalize the defense department that once made the city economically prosperous.

The launching of Sputnik not only altered the goals of Operation Paperclip, it fostered the founding of a new government agency, the National Aeronautics Space Administration. President Eisenhower created NASA to provide the United States with the resources necessary to become a leader in outer space.²⁰ With it, the federal government found a new way to funnel money into the South. The decision to put the new agency in Huntsville stemmed from the location of Wernher von Braun and his team of rocket scientists in the city. Now, Huntsville was home to two ventures of the United States government: the Army Ballistic Missile program and NASA.²¹

The arrival of the German engineers and scientists brought a new culture to the city of Huntsville. More often than not, they wished to "become American" in

¹⁹ "Southern Tradition Bars Negroes in TVA," *New Journal and Guide*, September 10, 1938, 8.

²⁰ Dwight D. Eisenhower, Statement by the President upon Signing the National Aeronautics and Space Act of 1958. Online by Gerhard Peters and John T. Woolley, The American Presidency Project.

²¹ Downs, *Transforming the South*, 225-228.

many aspects. They bought houses, eventually became two-car families, and dropped the German aristocratic parts of their names. The small size of Huntsville, however, led the German families to develop their culture within the city. The Germans introduced entertainment such as music and theater to Huntsville, and they began establishing Lutheran churches around the town. The new culture seem surface level, but it did not end there. Twenty years earlier, many of the Germans arriving in Huntsville fought a war for the Nazi regime, killing people based on their appearance.²² Becoming American citizens not only presented the German engineers with an opportunity to redeem themselves, but their willingness to overcome their past allowed Huntsville citizens to end American racial discrimination as well.²³ Upon their arrival in America, the Germans put discrimination behind them. Ridding themselves of their past, they strove to help Huntsville residents do the same by influencing them to end racial segregation.

The years of the Space Race and the years in which segregation came under attack coincide. Beginning in 1957, leaders of the American government pursued space travel with great intensity. The *Brown v. Board of Education* decision that made “separate, but equal” unconstitutional had come down only three years prior. Under these circumstances, disputes over segregation in Huntsville rose. On one hand, Alabama officials showed little desire to change their way of thinking about segregation. Governor George Wallace fought hard to defend segregation throughout the state, and even campaigned for the White House on a platform filled with racist tones.²⁴ Opposite the Alabama officials stood the local representatives in Huntsville. With the return of the success the Defense Department brought to the city, local officials and business leaders risked losing everything they had acquired in the previous years. With the city booming unlike ever before, the leaders understood the dangers of maintaining segregation.

The arrival of NASA brought ending segregation to the forefront of Huntsville’s resident’s minds. New economic prosperity flooded into the region from the strengthened labor market rate and the rise of defense spending. With continued segregation, new industry sparsely came to Huntsville. Researchers could not get workers or new businesses to invest in Alabama because of the negative image due to race relations. NASA forced Huntsville to consider whether protecting segregation or protecting the economy held greater value. To have NASA pull out of the city would mean the crash of an economy no one in Huntsville could bear.²⁵ That was the risk for citizens if segregation continued. To protect the city, leaders began the process of ending segregation in schools, housing, and industries. As a result, the government’s plan to use federal agencies as developers succeeded.

The Huntsville city schools experienced integration sooner than other towns in Alabama did, and the transition occurred more smoothly than in cities such as Mobile and Birmingham. People who came to work in the space program in Huntsville often had their families transferred from other areas of the country. Two factors of the education system in Alabama prevented people from relocating: the segregation issue and the weak curriculum. With so much of Alabama politics tangled in segregation,

²² Monique Laney, *German Rocketeers in the Heart of Dixie: Making Sense of the Nazi Past in the Civil Rights Era* (New Haven, Connecticut: Yale University Press, 2015), 3-9.

²³ Laney, *German Rocketeers in the Heart of Dixie: Making Sense of the Nazi Past in the Civil Rights Era*, 94-105.

²⁴ Nicholas C. Chriss, “Overtones of Racism Dog Wallace Campaign,” *Los Angeles Times*, June 21, 1968, 16.

²⁵ “Alabama Businessmen Told State Must Improve Image,” *New Journal and Guide*, November 7, 1964, 19.

an emphasis on education fell by the wayside. The technology brought to the city shed light on the ways Huntsville was behind in education, and the city took measures to rectify that problem. The city began developing programs, namely the United States Space Camp, that would eventually advance the reputation of education in Huntsville. Students in Huntsville during the Space Race surpassed common Americans in their knowledge of space travel and the solar system.²⁶ The chances of scientists and engineers to come to the region thus increased as education in Huntsville progressed.

The actual segregation of schools, not just the curriculum, kept workers from coming to Huntsville until the city began making strong pushes for integration. Institutions of higher education across Alabama endured segregation on a level unlike other states. Governor Wallace threatened to send troops to bar African-American students from entering colleges. Unlike other schools in the state, the university in Huntsville allowed black students to apply. Qualified students received admittance to the University of Alabama-Huntsville, but unofficial pressures from the state government forced them to withdraw their application.²⁷ Although colleges in Huntsville experienced segregation similar to other cities, public schools integrated before other cities in the state. Federal orders forced integration in four public schools in the city. Huntsville received these orders before any other school system in Alabama.²⁸ The disruption segregation caused in the classroom and the city stained on the city and the state's reputation. The fact that Huntsville was the first city in Alabama the federal government ordered to desegregate signifies the importance of integration in the city. The federal government knew the risks associated with allowing segregation to continue in a city critical to the Cold War. Effectively creating plans to integrate schools in Huntsville would provide cities across Alabama and the South with a blueprint to do the same.

The biggest disadvantage of placing NASA in Huntsville was the lack of industrial support in the region because of segregation.²⁹ NASA provided economic advancement in the city of Huntsville, but few industries invested in the city due to the negative racial relations. Before businesses lost all interest in Huntsville, business leaders had to transform their policies to reflect integration policies of the federal government instead of Southern tradition. Top leaders of industry in Alabama pleaded with the residents of the state to obey the Civil Rights Act of 1964.³⁰ Complying with this act created equality between African Americans and whites at least on the surface, if not in the hearts of people. Presenting the end of segregation in the South attracted businesses that further aided economic development in Huntsville.

So What?

The federal government was able to help end segregation in the American South by locating the National Aeronautics and Space Administration in Huntsville, Alabama. Why did the success of the government matter? Prior to the Space Age, President Roosevelt enacted one of the biggest trials of federal spending with the passage of the New Deal. The goal of the New Deal was to pull the United States out of the Great Depression, and in some aspects, President Roosevelt's plan experienced success. Ultimately, the economic boom from America's involvement in the WWII

²⁶ Ann Japenga, "Space Camp: Rocket to the Future," *Los Angeles Times*, August 29, 1985, F1.

²⁷ Robert E. Baker, "Alabama Desegregation May Start in Huntsville," *The Washington Post*, March 25, 1963, A2.

²⁸ "Huntsville Schools Told to Integrate," *The Atlanta Constitution*, August 13, 1963, 2.

²⁹ Downs, *Transforming the South*, 191-192.

³⁰ Anthony Heffernan, "Alabama's Big Business Calls for End of Jim Crow in State" *New Journal and Guide*, April 24, 1965, 11.

brought the United States out of the depression of the 1930s. Based on this, the government could infer increasing federal spending in certain areas to develop them had the ability to work, but no concrete evidence existed. This lack of evidence ended with the success of placing NASA in Huntsville to accelerate the end of segregation.

The federal government saw the drawbacks of placing an agency in a segregated area. Instead of choosing a different location for NASA, however, they used this opportunity to solve segregation. Businesses wanted industrial investments, and leaders understood integration would encourage investors to consider Huntsville. Because NASA and Redstone Arsenal needed workers, schools needed to integrate for workers to feel safe moving their children there. The economic advances brought on by NASA created such success in the city that leaders would do most anything, including integration, to continue the success. This move by the federal government created evidence to support future plans for spending as a means of advancing the government's agenda. Development for the government was not reserved to advancing the South's economy. By funneling money into the economy of Alabama, the federal government solved a social issue. The success of NASA in Huntsville implied the potential success of other governmental agencies to reverse prevalent problems in America.

Federal agencies not only stand as a testament to the success of economic development, these organizations also signify the power of the federal government over state and local politics. Segregation in the American South was an issue of federal rights versus states' rights. The federal government advocated for the abolishment of segregation in order to save the reputation of the United States. To preserve racial hierarchy, state leaders pushed for continuing segregation throughout Alabama. To save the spurred economy brought about by the arrival of NASA, city leaders stood up to state leaders in Alabama. City and federal officials took on the state government and their deeply embedded discriminatory ideals. The federal government used economic expansion of a city as bait to show a rural community of what advancement could look like. Although the ulterior motive of civil rights was economic and geopolitical success, the federal government's goal of integration rose above the state government's goal of segregation. The ending of segregation showed the inconspicuous methods the federal government could use in order to accomplish their agenda.

Less than twenty years prior to the arrival of the German engineers and scientists in Huntsville, Europe experienced strong nationalism and discrimination that resulted in the Holocaust. Simply because of race and religion, millions of people lost their lives based on the ideology of Nazism. Many of the Germans who relocated to Huntsville had practiced that ideology, and some worked on behalf of the German government to promote Nazism. At the end of WWII, the United States government put them to work against the Soviet Union and discreetly against segregation. So what? The irony cannot be missed. The United States joined a war in opposition to Nazis, then hired former Nazis to help them end their problem of segregation in the American South. The similarities of the two stories offers a chance of reconciling the ugly truths of both the Nazi ideology and Jim Crow laws in the South. Racial and ethnic discrimination is an unfortunate truth of humanity's history, but redemption of humanity also exists. By advocating integration throughout Huntsville and the South, Germans in the United States possessed the ability to begin redeeming themselves of their Nazi past.

Ending segregation with a government agency transformed the narrative of American policy on race at home. After years of Soviet propaganda threatened to dispel the American argument of liberty for all individuals, the federal government

had to put an end to segregation to ensure their credibility as defenders of liberty and rights for all in a democracy. The dismantling of segregation signified a reclamation of rights to Americans. No longer could these individuals discriminated against be used as a pawn in the Soviet game. Fighting to end segregation cleared the federal government of blame for racial discrimination.

Conclusion

The decision of the German engineers and scientists to plan their capture by the United States Army impacted the future of African-Americans in the rural American South. The Germans' transfer from New Mexico to Texas then Alabama, brought some of the greatest scientific minds to the United States. The significance of this for America in the Space Race was crucial, but it was also important in order in securing liberty and rights for all people. Facing a tainted reputation and propaganda from the Soviet Union, the federal government needed to end the Jim Crow laws of the South. Protecting themselves behind the identity and success of NASA, they created a plan to end segregation in the South. By spurring economic development in a rural city of Alabama, then threatening to take it away, the government showed the citizens of Huntsville, Alabama a life they did not want to lose. Experiencing a revitalized economy made the choice to end segregation a practical one, even for strong proponents of the status quo. The creation of an organization sponsored by the federal government brought something with greater value to a region that previously believed a traditional way of life was best. This success provided an example to the government for future endeavors of advancing their agenda and showed the advantages of using federal investment to influence a region.

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