

The US Space Program and the Cold War, Historic Role of African American Women

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Region: [USA](#)

Theme: [History](#)

Film examines how civil rights and advances in space technology took the United States into unexplored realms of space and societal transformation

Review: Hidden Figures

Director: Theodore Melfi

This feature film provides a glimpse into the role of African American women in the development of the United States space program during the early 1960s.

These events coincided with the escalating struggle for civil rights and self-determination, a movement which dated back to the pre-Civil War era when even freed Africans were subjected to inhuman treatment despite their existence in a nation that professed equality for all men and later women.

At the same time, as revealed somewhat in the film, starring Taraji P. Henson, Octavia Spencer and Janelle Monae, the U.S. was involved in a political and military struggle with the Union of Soviet Socialist Republics (USSR), the People's Republic of China and other non-capitalist countries over which social system would become dominant in the proceeding decades. The fact that the U.S. had never been true to its projected image of a free and equitable society provided the socialist world with an ideological weapon against capitalism and imperialism.

The three women in the film were portraying mathematicians and physicists such as Katherine Johnson, Dorothy Vaughn, Mary Jackson and Dr. Christine M. Darden whose calculations and verifications were essential components in the capacity of the U.S. to both launch and maintain its space program. This film is based on a book of the same name written by Margo Lee Shetterly published in 2016.



Johnson began her career at Langley Research Center in 1953. Her tasks were numerous including co-authoring a report on the trajectory equations needed for placing a spacecraft into orbit around the Earth. The film depicts Johnson's role surrounding the orbital launch of John Glenn, a historical turning point in the technological competition between the U.S. and the Soviet Union.



2017 represents the centenary of the Bolshevik Revolution in Russia which led to the founding of the USSR some five years later in 1922. Even though the Soviet Union collapsed

twenty five years ago, the level of anti-Russian propaganda has reached new heights of both political absurdity as well as dangerous military encounters.

In addition to the continuing hostility towards Moscow, there is also a threat of military conflict with China over the south seas of the Pacific where Washington is attempting to maintain its presence as a superior military force. The decline in capitalism as an economic system exemplified by the Great Recession of the previous decade and the burgeoning levels of income and wealth inequality, places the West in a very vulnerable position amid the rapid trajectory of Beijing which could become the leading world power in a matter of a few years.

The Space Program and the Cold War

After the successive launching of the Sputnik I satellite on October 4, 1957, it established the-then superiority of the socialist system as it related to scientific inquiry and technological development. The event was of world significance since it exposed the false notions promoted by capitalism that socialism provided no material incentives which were essential in promoting scientific innovations and social progress.

Within a year the National Aeronautics Space Administration (NASA) was formed at the aegis of President Dwight D. Eisenhower. NASA was created through the liquidation of the previous aviation program known as the National Advisory Committee for Aeronautics (NACA) which was established on March 3, 1915 during World War I.

As revealed by the NASA website: "The Sputnik launch changed everything. As a technical achievement, Sputnik caught the world's attention and the American public off-guard. Its size was more impressive than Vanguard's intended 3.5-pound payload. In addition, the public feared that the Soviets' ability to launch satellites also translated into the capability to launch ballistic missiles that could carry nuclear weapons from Europe to the U.S. Then the Soviets struck again; on November 3, Sputnik II was launched, carrying a much heavier payload, including a dog named Laika." (<https://history.nasa.gov/sputnik/>)

This same entry continues noting: "Immediately after the Sputnik I launch in October, the U.S. Defense Department responded to the political furor by approving funding for another U.S. satellite project. As a simultaneous alternative to Vanguard, Wernher von Braun and his Army Redstone Arsenal team began work on the Explorer project."

Consequently, the space program had a distinctly military imperative. While socialism as a political ideology and economic system was challenging the hegemony of capitalism and imperialism, there was the emergence of the national liberation movements throughout Africa, Asia and Latin America which both the socialist camp and the West were attempting to win over to the respective world outlooks.

African Americans objectively had no real material interest in maintaining capitalism and imperialism. The system of exploitation and world conquest had been made possible as a result of the capital accrued from the profits generated from the Atlantic Slave Trade and the rise of colonialism.

Hidden Figures addresses this dilemma by focusing on the role of Jim Crow as a facilitator of racial capitalism and social containment. Nonetheless, it was the African American people themselves who opened up the challenge to institutional racism in the U.S.



The character portrayed by Kevin Costner was purely fictional. The struggle against racism was influenced by the overall international situation and the self-emancipatory role of the African American people. Costner, who the film falsely depicts as Al Harrison, becomes a reluctant ally of the Black women. In the movie Harrison is shown as taking a sledge hammer and knocking down the signs for separate restrooms at Langley.

Renee Graham wrote in the Boston Globe that: “Unfortunately, this rousing moment is as phony as the Bowling Green massacre — yet not at all uncommon in Hollywood films. In ‘Hidden Figures,’ a movie where African-American women are the clear heroines, the filmmakers still felt compelled to make up a white male savior who literally strikes a blow against 1960s segregation. Without fail, such unnecessary scenes are condescending, insulting, and patronizing to their audiences, regardless of race.” (Feb. 19)

African Americans, many of whom had studied at Hampton Institute and other Historic Black College and University (HBCU), began to work in larger numbers at the Langley Center during World War II and its successive years. Mary Jackson was the first African American woman engineer at NASA beginning in 1958. Dorothy Vaughn assisted in the pioneering of the transformation of human computers, largely women, to the main frame machines which would later dominate the industry well into the 1970s.

Science and Societal Transformation

Shetterly notes in her book that it was the military necessities of the Second World War that created opportunities for African American women at the NACA Langley Center. She emphasizes: “The black female mathematicians who walked into Langley in 1943 would find themselves at the intersection of these great transformations, their sharp minds and ambitions contributing to what the United States would consider one of its greatest victories.”

The breaking down of some aspects of segregation at NACA and later NASA was mirrored

within the broader society. Nonetheless, institutional resistance to African American advancement was rooted in the system of national oppression and economic exploitation.

NASA has promoted the societal benefits of the space program ranging from contributions in the areas of communications, road safety, military affairs, food safety, etc. However, these purely scientific advances have not brought about the total liberation of the African American people and other oppressed nations in the U.S.

The capitalist relations of production are reflected in the increasing concentration of wealth among smaller numbers of multi-national corporations and financial institutions. The imperialist system has enhanced class divisions and consequent militarization on a global scale.

Moving towards the conclusion of the second decade of the 21st century, economic and social inequality is increasing at a phenomenal rate. The advent of the first self-identified president of African descent, Barack Obama, did not fundamentally change the realities of disempowerment and state repression.

Scientific inquiry and application must be designed to foster the elimination of inequality among people within society. These are the stark lessons of the space program and the proliferation of computerized technology.

A revolution within society is essential for the liberation of humanity. African Americans must continue to play their historic role in this transformative process.

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