

Dr. Walter McAfee: A “True Role Model”**By Melissa Ziobro****DOI: <https://doi.org/10.14713/njs.v8i2.288>**

Dr. Walter McAfee surmounted the racism endemic to twentieth-century America and made unique and enduring contributions to the scientific community during his 42 years working as a government scientist in Monmouth County, New Jersey, to include critical contributions to Project Diana, which allowed man’s first “contact” with the moon in 1946. He also made time to quietly battle injustice, and teach and mentor a new generation of innovators and leaders as a professor at Monmouth College (now University) in West Long Branch, a trustee at Brookdale Community College in Lincroft, and an organizer of enrichment programs for high school students. While the communities to which he contributed so much have memorialized him in different ways, the general public knows too little about his accomplishments. We must ensure that the stories of diverse pioneers like Walter McAfee are not excluded from our understanding of the history of the Garden State.

NJ Studies: An Interdisciplinary Journal “strongly encourage[s] submissions that help to tell the stories of people, groups, places, and events commonly excluded from dominant historical narratives; or that give new perspectives on familiar stories.” Pioneering African American army civilian scientist Dr. Walter S. McAfee (1914–1995) is perhaps most famous for his participation in Project Diana, which allowed man’s first “contact” with the moon in 1946. However, McAfee was initially *excluded* from coverage of the event. Though that was later rectified, few people in the Garden State know his name today. This is despite the fact that he served the army for 42 years (mostly stationed at Fort Monmouth in Eatontown or at its sub-post, Camp Evans in Wall). He also made time to quietly battle injustice, and teach and mentor a new generation of innovators

and leaders as a professor at Monmouth College (now University) in West Long Branch, a trustee at Brookdale Community College in Lincroft, and an organizer of enrichment programs for high school students. His story is one of raw talent, perseverance, patience, and inspiration, and deserves wider exploration and recognition.

Walter S. McAfee was born on September 2, 1914, in Texas, one of nine children. His keen mind impressed his high school instructors, one of whom, Freeman Prince Hodge, called him an “intellectual giant.”¹ He earned a Bachelor of Science degree in mathematics from Wiley College² in 1934, graduating magna cum laude. Still, it was the Great Depression, and he struggled to find work. He did some substitute teaching but was not above odd jobs: farm laborer, carpenter’s assistant, door-to-door salesman. Finally frustrated by a lack of options, McAfee recalled in a 1994 oral history interview with Professor Robert Johnson Jr. that “it seemed that I wasn’t going to get a job teaching, so I said to my mother and father, ‘I’m going to go to Columbus, Ohio, because I can apply for scholarships and fellowships as a first-honor student at the state college.’” He recalled: “Ohio State wrote back and said, ‘You will not have to apply separately for admission. You are admitted on the basis of this application.’” Still, venturing to Ohio was a gamble. McAfee set off, “knowing nobody and not knowing where to stay when I first got there. I had \$9.29 in my pockets. I asked a black fellow who worked at the bus station if he knew anybody who kept students. He said he knew a very good family and when I got there, I laid it on the line. I said, ‘I don’t have money. I’m willing to work. I’m a graduate student at Ohio State.’”³

¹ “Dr. Walter S. McAfee oral history interview conducted by Professor Robert Johnson Jr.,” February 6, 1994. U.S. Army Communications-Electronics Command Archive, Aberdeen Proving Ground, Maryland.

² Wiley College, founded in 1873 in Marshall, Texas, is a Historically Black College (HBCU). See more at <https://www.wileyc.edu/the-history-of-wiley-college/>.

³ “McAfee oral history interview by Johnson Jr.,” February 6, 1994.

McAfee would persevere and earn a master's degree in physics from Ohio State University in June of 1937. In an interesting aside, according to oral tradition, McAfee roomed with and tutored runner Jesse Owens during these years.⁴ Owens, you may recall, famously infuriated white supremacist leader of Nazi Germany, Adolf Hitler, by winning four gold medals and setting several records at the Berlin Olympics in 1936. McAfee and Owens's time at Ohio State overlapped. The Ohio State University had only one men's dorm, and Blacks were barred from it. Owens's grades *did* at times render him ineligible to compete in collegiate sports. According to student directories held in the archives at Ohio State, Walter McAfee lived at 236 E. 11th Avenue, phone number WA-1570, from 1935–1936 and 1936–1937. Jesse Owens lived at 236 E. 11th Avenue, phone number WA-1570 from 1933–1934 and 1934–1935. The 1935–1936 directory, however, lists Owens at 256 E. 11th Avenue, with the same phone number, WA-1570. The Ohio State archivist and this author feel it highly possible that the 1935–1936 entry for Owens is a typo, and that there is a strong possibility that Jesse Owens and Walter McAfee did at the least share a boardinghouse.⁵

After graduation, McAfee taught in Columbus, Ohio, from the fall of 1937 to the spring of 1942. During this time, he applied for civil service positions. The widespread racism of the day complicated this process despite McAfee's stellar credentials. As McAfee recalled it:

Now I was on the list and the first offer I got was Langley Air Force Base in Virginia to solve problems in hydroaeromechanics. According to the paperwork, I was to supply information and send the application back. So I read the duty and at the end it asked me questions about race and religion and to send a picture and so forth. I knew that the NAACP and others had been fighting to get that kind of request removed from applications. . . . We had a friend who was a black chemist and he was suing all the time because he was one of these guys that was always number 1, 2, or 3 at the top of the exams. Whenever he went for an interview, he ended up dead when he sent his picture. At that time, they didn't have to take the top man; they had to take one of the top three.⁶

⁴ "George Morris oral history interview conducted by Professor Melissa Ziobro," March 2, 2021. Monmouth Memories Oral History Program.

⁵ Michelle Drobik, email message to author, June 4, 2021.

⁶ "McAfee oral history interview by Johnson Jr.," February 6, 1994.

Knowing the deck was stacked against him, McAfee applied for the Langley job. He recalled: “So I sent it with the picture. They sent it back, ‘no’—they had hired somebody for that position. The next offer I had was to teach elementary calculus to the aviation cadets at Kelly Field in Texas. I didn’t get that one. It asked for pictures and so forth. . . .”⁷ This process repeated itself several times, until a job came up with the Army Signal Corps at Fort Monmouth in central New Jersey. This base, home of the Signal Corps at the time, had opened during World War I. It was the site of the Army Signal School and Signal Corps Laboratories. McAfee recalled that Fort Monmouth’s application did *not* ask for a picture. He received a job offer shortly after applying, with instructions to report almost immediately after submitting his paperwork. He resigned from his steady teaching job in order to do so, despite fears that he might be fired when he arrived in New Jersey and fort officials discovered his race. This was an especially large gamble, as McAfee had married his wife, Viola, at this point, and she was expecting their first child.⁸

McAfee’s fears dissipated when he arrived at Fort Monmouth and found a number of African Americans already at work. The Signal Corps at Fort Monmouth was in fact offering unique opportunities for people of color in the 1940s and 1950s. African American electrical engineer and retired senior executive staffer Thomas E. Daniels, who worked at the base for 35 years, summed this up in a 2003 interview with journalist Gloria Stravelli. He stated: “Fort Monmouth was known as the Black Brain Center of the U.S.” Daniels affirmed that the post “provided a place where black scientists and engineers could find jobs and advance their careers,” while other research facilities closed their doors to African Americans.⁹

⁷ Ibid.

⁸ “McAfee oral history interview by Johnson Jr.,” February 6, 1994.

⁹ Gloria Stravelli, “Army research facility once known as the ‘Black Brain Center,’ <https://archive.centraljersey.com/2003/03/27/forts-gate-swung-open-to-black-scientists/>. Accessed February 4, 2022.

Of course, these employment opportunities did not inoculate the fort's African American employees from the culture of discrimination and segregation that marked this period in our country's history. Remember that the army itself institutionalized discrimination until President Harry S. Truman signed Executive Order 9981 on July 26, 1948, ending racial segregation in the United States Armed Forces. Even after that, Jim Crow still ruled in many places in the private sector, including in the North; and racism remained widespread. Despite its best efforts, the Signal Corps could not ensure uniformly equitable treatment for African American army personnel. Upon arriving in New Jersey in spring 1942, McAfee noted that off-post segregation and discrimination made it difficult to get housing and meals. In 1948, another Black Signal Corps employee, Leroy Hutson, had a cross burned in front of his home in Wall Township.¹⁰

Racism and discrimination could rear its head on base as well, sometimes making it difficult for African Americans to receive promotions. As McAfee later described it: ". . . if they had one position and had a black man and a white man competing for it, the white man got it. Mainly, there's less friction that way. The black man isn't going to fight that hard. Of course, today you wouldn't say that. I guess we were just getting into the jobs."¹¹ This is not to suggest McAfee was a pushover, by any means. He once said, "I wouldn't work for Jesus Christ if he wouldn't listen to me."¹²

McAfee's early, World War II-era assignments in the Signal Corps Laboratories included duty with the Radar Siting Group and the Mathematical Analysis Group. Projects were often top secret and included research into locating mines, counter-mortar equipment, and identification

¹⁰ Erik Larsen, "A look back at Wall Township's racist past," *Asbury Park Press*, June 17, 2018, <https://www.app.com/story/news/history/erik-larsen/2018/06/17/look-back-wall-townships-racist-past/704099002/>. Accessed February 2, 2022.

¹¹ "McAfee oral history interview by Johnson Jr.," February 6, 1994.

¹² Ibid.

friend-or-foe technology—or, as McAfee described it in lay terms: “Let’s find out who they are before we shoot them.”¹³ Despite the urgency of wartime operations, McAfee recognized that his work could help save lives, and therefore the need for quality control was great, noting: “I always say it doesn’t do much good to rush work. You find errors that you didn’t think you could make.”¹⁴ The project for which Dr. McAfee is perhaps most famous occurred just after World War II—the Project Diana moon bounce, a 1946 radar experiment at a Fort Monmouth outpost then known as Camp Evans in nearby Wall Township, New Jersey.¹⁵ Military brass wanted to determine whether



Courtesy U.S. Army Communications-Electronics Command
Archive, Aberdeen Proving Ground, Maryland

the ionosphere could be penetrated by radar, in order to detect and track enemy ballistic missiles. As the National WWII Museum ably tells it: “The Pentagon ordered . . . Camp Evans staff to investigate if such a weapon was launched against the United States whether it would be possible to detect and track it using radar . . . the team-modified radar equipment

¹³ Ibid.

¹⁴ Ibid.

¹⁵ Today, the land is home to the InfoAge Science History Learning Center at the Camp Evans National Historic Landmark. See more at www.infoage.org.

already on hand at Camp Evans for their equipment, using a heavily modified SCR-271 radar set as their transmitter.”¹⁶

Because there were no incoming missiles to track, the team decided that they would try to bounce a radar signal off the moon. Early calculations on how exactly to do this were not working, until McAfee was brought in to puzzle them out. As he recalled it:

When they came to speak to me initially, they knew that I had done radar coverage diagrams. I had done radar sighting. I had done radar echoing areas or radar cross sections and I had done refraction studies in the atmosphere. I had a paper on it. . . . Colonel John Dewitt was head of Evans and he had previously tried bouncing radar signals off the moon and failed. E. K. Stodola was head of the civilian branch section that we in theoretical studies were under at that time. I computed a radar cross section of the moon, a radar coverage pattern, and distance to the moon, so they could tell how big the signal would be when it returned.¹⁷

On Thursday, January 10, 1946, at 11:58 a.m., using McAfee’s calculations, the team detected the first signals reflected back from the moon. The radio waves took 2.5 seconds to travel to the moon and back. As the WWII Museum notes:

The experiment was repeated over the coming days and months and demonstrated for Pentagon officials, who were also interested in the “Moonbounce” technique’s potential to eavesdrop on the Soviet Union; experiments which ultimately proved unsuccessful. . . . Despite its limited military potential, Project Diana witnessed the birth of radar astronomy, or the ability to observe and measure the distance of nearby astronomical objects by analyzing their reflections. Project Diana also demonstrated that radio communication could be conducted through the ionosphere, paving the way for the development of satellites and ultimately manned space-flight. Perhaps more familiar, the “Moonbounce” technique—known today as EME or Earth-Moon-Earth communication—is still used by amateur and HAM radio operators to this day.¹⁸

The January 25, 1946, *Asbury Park Press* newspaper read:

¹⁶ Collin Makamsom, “Project Diana: To The Moon And Back,” National WWII Museum, <https://www.nationalww2museum.org/war/articles/project-diana-moon-and-soviet-union>. Accessed February 4, 2022.

¹⁷ “McAfee oral history interview by Johnson Jr.,” February 6, 1994.

¹⁸ Jack Gould, “Contact With Moon Achieved By Radar In Test By The Army: An Echo From The Moon Is Recorded,” *New York Times*, January 25, 1946; “The First Moon Contact,” *Asbury Park Press*, August 29, 1971; Collin Makamsom, “Project Diana: To The Moon And Back,” National WWII Museum, <https://www.nationalww2museum.org/war/articles/project-diana-moon-and-soviet-union>. Accessed February 4, 2022.



Diana Radar Tower

**Courtesy U.S. Army Communications-Electronics
Command Archive, Aberdeen Proving Ground,
Maryland**

Engineers and astronomers saw in the first direct contact with the moon, the opening of a vast field of speculation, which did not preclude the possibility that man might some day journey to the moon. . . . The radar contact also opened up an entirely new field of study of the universe. The success of the engineers was seen as opening the door to direct communications with other planets in our system.”¹⁹

This was not just press hype, or journalists caught up in the moment. Major General Walter E. Lotz Jr., former commander of Fort Monmouth, affirmed in 1971: “We can note that it was the role played here that made the Apollo 14 and other moon shots possible because it established the feasibility of radio communications throughout outer space.” He continued: “Without space communications,

our moon probes would never have gotten off the ground.”²⁰ McAfee himself appreciated the significance of Project Diana even at the end of his long career, telling Professor Johnson in 1994:

A lot of people say that the work I was very much a part of, bouncing and receiving radar signals off the moon, heralded the U.S.’s ability to send manned spacecraft. I don’t discourage those comments. . . . If people say that this heralded the space age, then I say fine. You take one step at a time and since we had learned to do radar-coverage patterns and echoing areas and signal to noise ratios and ranges on things, the next thing to do was to make one that had the right parameters to reach the moon.”²¹

¹⁹ “Camp Evans Scientists Open Vast New Field with Radar Moon Contact,” *Asbury Park Press*, January 25, 1946, 1.

²⁰ “The First Moon Contact,” *Asbury Park Press*, August 29, 1971; “Wall, County Officials Praise Diana Workers,” *Red Bank Register*, January 12, 1971, 1.

²¹ “McAfee oral history interview by Johnson Jr.,” February 6, 1994.



While other Project Diana team members were mentioned in press coverage, McAfee was initially excluded. “Camp Evans Scientists Open Vast New Field with Radar Moon Contact,” *Asbury Park Press*, January 25, 1946; see also Jack Gould, “Contact With Moon Achieved By Radar In Test By The Army: An Echo From The Moon Is Recorded,” *New York Times*, January 25, 1946.

While the team leaders involved in Project Diana were happy to boast openly about their momentous accomplishments to the press and general public (the existence of the project was not classified), credit was not shared properly, at least at first. As McAfee recalled:

“The press release was sent out but I was not mentioned. . . . There were a lot of [other] technicians who cried that they weren’t named in that paper and should have been, too.”²² Several months went

by before this oversight was corrected and McAfee was given credit for his work. He recalled:

Somebody connected with publicity at the army was talking with me and said, “I looked at all those early things and I don’t find you anywhere. Can you tell me why that is?” I said, “I can tell you why, but I don’t care to get into a discussion about it.” I didn’t get any of the publicity until after I got the Rosenwald Fellowship to Cornell, which was announced around May or June of that year [1946]. The moon radar was announced in January and then in May or June they wrote big articles about me and then they made some nice statements about how I had worked on the theoretical problems connected with radar. I said, “They could have told that in the beginning.”²³

²² “McAfee oral history interview by Johnson Jr.,” February 6, 1994.

²³ Ibid.

Despite this negative experience, McAfee stuck with the army and earned a doctoral degree in nuclear physics from Cornell University in 1949.²⁴ He continued working at Fort Monmouth, on projects including those related to nuclear technology and satellites. In 1956 he was awarded one of the first Secretary of the Army Research and Study Fellowships, which was presented to him at the White House by President Dwight D. Eisenhower himself. Under the fellowship, he studied radio astronomy and ionospheric theory at Harvard University.²⁵

It was in the 1950s that U.S. Senator Joseph McCarthy brought his communist witch hunt to Fort Monmouth, convinced a ring of spies was operating at the post. Dozens of employees were suspended, their reputations battered, on little to no evidence. (All but two would later be reinstated.)²⁶ McAfee himself was not the subject of any investigations (that he knew of), but he recalled how he tried to help one man in the crosshairs:

Only once did I get involved early to help someone. I heard a guy tell that when he was a little boy, he grew up as a Catholic and he was an altar boy. I remembered it, and later when he said they were after him, I said they are fighting any way they can; you fight back that same way. Write back to them and tell them that you grew up as a Catholic and that you were an altar boy when you were a young man and that you subscribe to the Catholic Church's position on communism. He looked at me for a moment and I said, "Write it and send it in." He said, "I seldom go to church." I said, "They don't give a damn. They don't know." So he went back and wrote it. He didn't get put out of there.²⁷

It seems McAfee tackled communist hysteria in the same cool, analytical way he regularly went up against racism.

²⁴ "Announce 50 Rosenwald Fellowships; 31 Go to Negroes for Important Projects," *The Daily Bulletin*, May 21, 1946; "Rosenwald Scholarships Announced For Fifty," *Detroit Tribune*, May 25, 1946.

²⁵ "Area Scientist Wins Fellowship," *Red Bank Register*, November 8, 1956, 46; "Monmouth Physicist Fellowship Winner," *Asbury Park Evening Press*, November 2, 1956, 17.

²⁶ Rebecca Raines, "The Cold War Comes to Fort Monmouth: Senator Joseph R. McCarthy and the Search for Spies in the Signal Corps," *Army History*, No. 44 (Spring 1998), 8–16.

²⁷ "McAfee oral history interview by Johnson Jr.," February 6, 1994.



Dr. Walter McAfee at work

**Courtesy U.S. Army Communications-
Electronics Command Archive, Aberdeen
Proving Ground, Maryland**

In the 1960s, McAfee developed sensors that were used to detect and track enemy movements during the Vietnam War. In 1961, he won an Army Research and Development Achievement Award “for studies vital to the national defense in connection with missile guidance systems and communications links.”²⁸ In 1969, when America first put a man on the moon, the press wanted to hear McAfee’s thoughts. The *Asbury Park Press* reported:

Dr. Walter S. McAfee, who was among Ft. Monmouth scientists at Evans Signal Laboratories, Wall Township, to make moon contact by radar in 1946, said, “I think it’s very wonderful. I think at this stage it’s a real achievement and I’m waiting for them (the astronauts) to get back in and get off the moon. I was very impressed with their first statements.”²⁹

In 1971, McAfee was one of the first African American employees of Army Materiel Command to be promoted to GS-16, a “super-grade” civilian position, and predecessor of today’s federal senior executive service. He and Fort Monmouth command leadership traveled to Washington, DC, for the prestigious promotion ceremony.³⁰ At that time, McAfee became the first scientific advisor to the Deputy for Laboratories

²⁸ *Asbury Park Evening Press*, “3 Signal Scientists Honored,” September 12, 1961, 12.

²⁹ “Shore Reacts with Awe,” *Asbury Park Press*, July 21, 1969, 30.

³⁰ “McAfee named to GS-16 Post,” *Red Bank Register*, January 18, 1971, 13; “Wall, County Officials Praise Diana Workers,” *Red Bank Register*, January 12, 1971, 1; “Dr. McAfee Gets High ECOM Post,” *Asbury Park Press*, January 19, 1971, 23; “Dr. McAfee’s Appointment,” *Asbury Park Press*, January 24, 1971, 15.

at the U.S. Army Electronics Command at Fort Monmouth (as the Signal Corps Laboratories was at that point known). The *Asbury Park Press* newspaper reported:

The appointment of Dr. Walter S. McAfee of South Belmar as the Army Electronics Command's first scientific adviser to the Deputy for Laboratories will evoke praise from his Fort Monmouth colleagues and equal commendation from the Shore community where Dr. McAfee has been identified with a wide variety of civic activities for the more than quarter century he has resided here. An outstanding astrophysicist, his educational and professional achievements have earned him a multitude of honors, too lengthy for listing here. A mild and modest man . . . it was his theoretical calculations which provided the groundwork for man's first radar contact with the moon in 1946 and his latest adventures are in the rare areas of quantum optics and laser holography. In them he has the admiration of those who do not know what the terms mean but know that the man himself is a valued and concerned citizen of the Shore community."³¹

From 1979 until 1983, Dr. McAfee was an adviser and study director for NATO forces in Europe. "This meant I had to make frequent trips to London, Brussels, Paris, and The Hague," he said in a January 1985 interview with journalist Edward L. Walsh. "All of the officials of the countries involved spoke English, but the French insisted that we had to use their language in all our dealings. As a result, I got to know a little bit of French."³² This may have been an especially poignant post for McAfee, who, when traveling stateside early in his government career, was often mistaken for a cook or a laborer, and had been required to travel with *The Negro Motorist Green Book*, a "guidebook for African American travelers that provided a list of hotels, boarding houses, taverns, restaurants, service stations and other establishments throughout the country that served African American patrons."³³

³¹ "Dr. McAfee Gets High ECOM Post," *Asbury Park Press*, January 19, 1971, 23; "Dr. McAfee's Appointment," *Asbury Park Press*, January 24, 1971, 15.

³² "Scientist helped boost U.S. into space," *Asbury Park Press*, January 16, 1985, 4.

³³ "McAfee oral history interview by Johnson Jr.," February 6, 1994; "The Negro Motorist Green Book," Smithsonian Digital Volunteers: Transcription Center, <https://transcription.si.edu/project/7955#:~:text=The%20Negro%20Motorist%20Green%20Book%20was%20a%20guidebook%20for%20African,that%20served%20African%20Americans%20patrons>. For further reading on the *Green Book*, see Mia Bay, *Traveling Black: A Story of Race and Resistance* (Belknap Press, 2021) and Gretchen Sorin, *Driving While Black: African American Travel and the Road to Civil Rights* (Liveright, 2020).

McAfee retired from civilian service with the army in 1985 after 42 years of service, having spent his entire career based at Fort Monmouth. In an *Asbury Park Press* interview at the time of his retirement, he called his work with Project Diana the “highlight” of his career.”³⁴



Asbury Park Evening Press, July 29, 1997, 6

Though he had left his full-time teaching career behind to join the civil service back in 1942, McAfee had remained involved in education throughout his years at the fort. Despite the demands of his flourishing career with the army, he still found time to support and educate the scientific community’s next generation of leaders. He was especially interested in helping learners from disadvantaged communities. As early as 1946, just a few years into his army civilian career, he was organizing collections to raise funds for African American college scholarships.³⁵ He was a founder and an active participant in a Monmouth County group that mentored and tutored local

³⁴ “Scientist helped boost U.S. into space,” *Asbury Park Press*, January 16, 1985, 4; “Senator to Speak at College Graduation,” *Asbury Park Press*, April 25, 1985, A14.

³⁵ “College Fund Given By Fort Personnel,” *Asbury Park Evening Press*, August 9, 1946, 5.

high school students from underprivileged backgrounds. As another mentor, Thomas Baldwin, noted: “The size of public school classes makes it impossible for teachers to give individual attention to every child to the extent that some may need it. Hence, we try to provide that extra attention some students need.” Mentor LeRoy Hutson continued:

Many of these children most of whom are Negroes have never had any intimate contact with Negroes who have come from the same or very similar backgrounds, but who have succeeded by persisting in their school work and have gotten good jobs in professional fields. . . . The students have few opportunities to come in contact with people who have surmounted their neighborhood surroundings. When we talk to them, we try to motivate them to do so.”³⁶

McAfee also served as a trustee of the local community college, Brookdale, in Lincroft, starting in 1970 (shortly after Brookdale opened in September 1969). When his candidacy was announced in 1969, the *Red Bank Register* reported: “Dr. McAfee would be the only black person on the board.”³⁷ Upon joining the board in 1970, the *Register* declared his “credentials are impressive—and Brookdale is fortunate to have another outstanding member of its Board of Trustees. Together with an excellent administration and a first-rate faculty, the leadership is being provided to make Brookdale the type of college that is the goal of all of us in Monmouth.”³⁸ McAfee eventually rose to board of trustees chairman, serving in that capacity for five years beginning in 1975. The early years of the college, including McAfee’s tenure, were plagued by growing pains, to include battles over faculty pay, academic freedom, and the physical plant.³⁹

³⁶ “Math Club Meets At College Wednesday,” *Asbury Park Sunday Press*, April 30, 1961, 8; “Door Is Opened to Needy Students,” *Asbury Park Sunday Press*, April 26, 1964, 5; “Models,” *Asbury Park Press*, February 16, 1986, 4.

³⁷ “Brookdale Trustee Candidate is Eyed,” *Red Bank Register*, November 12, 1969, 5.

³⁸ “The New College Trustee,” *Red Bank Register*, January 22, 1970, 6.

³⁹ “Brookdale Board Post Goes to Fort Scientist,” *Red Bank Register*, January 20, 1970, 13; “Litwin Sworn to Brookdale Board,” *Red Bank Register*, November 21, 1975, 29; “Irwin at Helm,” *Asbury Park Press*, January 3, 1970, 11; “Litwin Choice to Head Trustees at Brookdale College,” *Asbury Park Press*, November 21, 1980, 44; Doris Kulman, “Brookdale faculty to launch class boycott,” *The Daily Register*, April 12, 1977, 1; Doris Kulman, “Board remains silent as complaints pile up,” *The Daily Register*, April 29, 1977, 1; Walter S. McAfee, “A Letter from the Board of Trustees to the People of Monmouth County,” *Red Bank Register*, September 18, 1977, 46;



Dr. McAfee also lectured in atomic and nuclear physics and solid state electronics at nearby Monmouth College (now Monmouth University) in West Long Branch, New Jersey, from 1958–1975.⁴⁰ He was firmly ensconced in student life, regularly joining clubs for lectures and other activities, and serving as a faculty charter member of Sigma Pi Sigma, Monmouth College Chapter (the National Physics Honor Society).⁴¹

McAfee's classes were the stuff of legend among students, with one course being referred to as the "Mystery Hour." His classes were known to be grueling, but fair. Of the grading, one former student, George Morris, recalled in a recent oral history interview with this author:

Well, it was curved, of course, it had to be because no mortal that I know would get 75 to 80 or whatever it is. The curve was, if you got around a 40 or 50, you generally got a B. His exams, they probably made up what he thought was reasonable in his universe. He

"Brookdale's History," <https://www.brookdalecc.edu/about/about-the-college/brookdales-history-2/>. Accessed February 4, 2022.

⁴⁰ "Socratic Society to Talk Science," *Asbury Park Press*, April 23, 1961, 4; "Dr. McAfee Gets High ECOM Post," *Asbury Park Press*, January 19, 1971, 23; "Scientist helped boost U.S. into space," *Asbury Park Press*, January 16, 1985, 4.

⁴¹ "Installation Saturday for Sigma Pi Sigma," *Red Bank Register*, January 25, 1967, 31.

invited you to bring anything into the exam that you wanted to. Any book, any paper, any test, previous tests, anything. He wanted you to succeed. He wasn't there to trick you, although sometimes it looked like you never saw some of the questions before ever in any of the homework.⁴²

Another former student, Ron Johnson, concurred about the rigors of McAfee's courses, recalling in his recent oral history interview with this author: "One of the tests I took, I think I got two or two and a half points out of 100. Very depressing, by the way. I looked, and I had a B on my paper for that. And they always had the rumor that he gave you half a point for putting your name on the paper, so I don't know, but it was tough!"⁴³

But the students seem to have loved and respected McAfee. Gary Barnett noted in an interview with Monmouth University student Vincent Sauchelli: "I had him for advanced physics. He was a very interesting man. . . . He was really, really brilliant."⁴⁴ John Tranchina, in his interview with this author, praised Dr. McAfee's teaching ability, saying:

He would write everything on the board and you didn't have to scramble . . . and miss things. So if you didn't understand something, you could read it, right? Again, and ask him right there. And he was right on the money all the time. He was very rigorous in what he taught. And I learned a lot from him, I mean, he was just a great teacher. I had some terrible teachers in college, but everybody gets those, and you have to work at writing, scribbling and everything. . . . You didn't have to do that with him, you just . . . It was great . . . What he did was taught down at your level."⁴⁵

George Morris noted: "I think in terms of working, I probably put more time into that course. . . . You know what's interesting? I did it because I wanted to please him. He had a nature about him that wasn't adversarial. It was something that—it became friendly, and that was great."

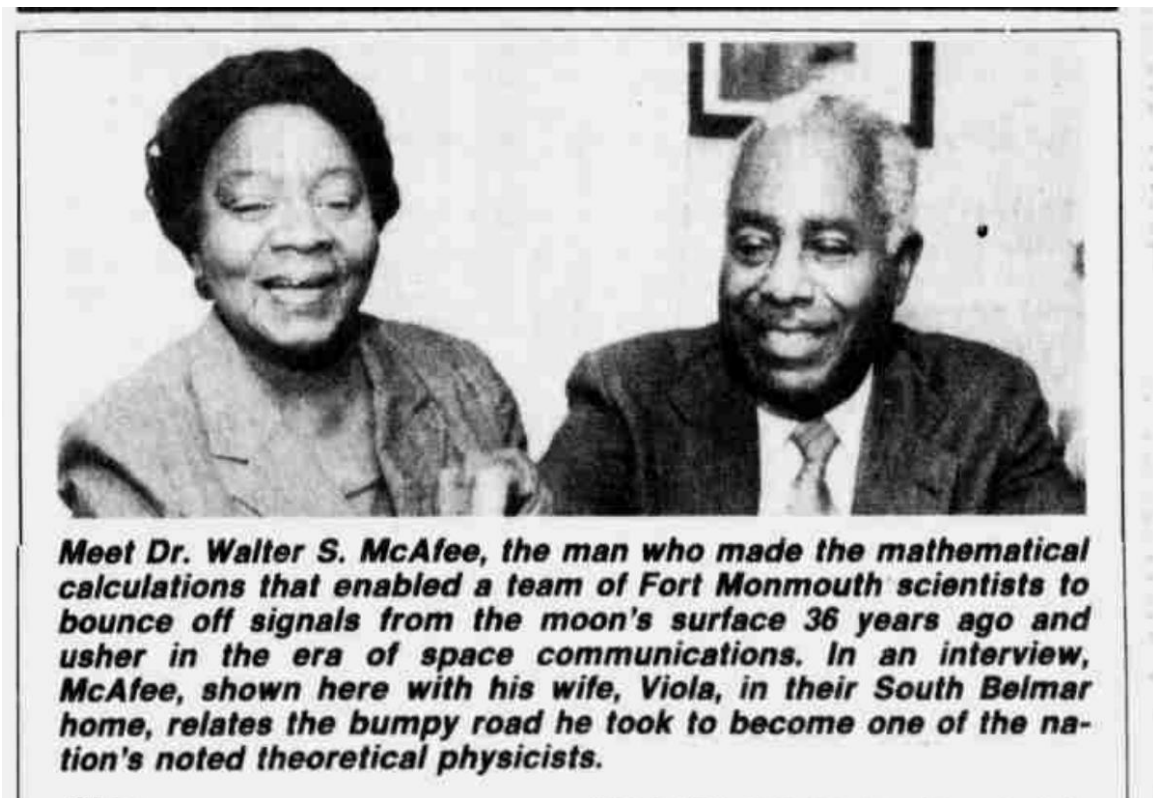
⁴² "George Morris oral history interview conducted by Professor Melissa Ziobro," March 2, 2021. Monmouth Memories Oral History Program.

⁴³ "Ron Johnson oral history interview conducted by Professor Melissa Ziobro," April 6, 2021. Monmouth Memories Oral History Program.

⁴⁴ "Gary Barnett oral history interview conducted by Vincent Sauchelli," December 14, 2020. Monmouth Memories Oral History Program.

⁴⁵ "John Tranchina oral history interview conducted by Professor Melissa Ziobro," February 22, 2021. Monmouth Memories Oral History Program.

Morris continued: “He didn’t look down his nose at you because you weren’t as smart as he was. He understood that you’re an engineering student . . . and [would] help you in any way he could to enjoy what he enjoys and try to convey to you the fun of learning things that you’d never thought you could learn before.”⁴⁶ Many of the students McAfee helped educate at Monmouth College would head over to nearby Fort Monmouth and have long, productive, and important careers with the army themselves. Many recalled seeking out their former teacher while at the base, remembering that McAfee still readily dispensed advice and support long after they’d moved from teacher and pupil to colleagues.



Asbury Park Press, June 5, 1982, A3

⁴⁶ “George Morris oral history interview conducted by Professor Melissa Ziobro,” March 2, 2021. Monmouth Memories Oral History Program.

Dr. Walter McAfee died on February 18, 1995. He was survived by his wife, Viola Winston McAfee, and their two daughters, along with many other beloved family members. His awards and commendations are too many to list comprehensively here.⁴⁷ He has been memorialized in some distinctive ways by the communities he contributed so much to. For example, in 1997, Fort Monmouth named a \$14 million building in his honor. It would house the Communications-Electronics Command's Information and Intelligence Electronic Warfare Directorate (a descendant of the old Signal Corps Laboratories, and of the Electronics-Command). This was a unique designation, as most memorialization on army bases honors uniformed military personnel. Then Communications-Electronics Command Commander Major General Gerard P. Brohm noted at the dedication ceremony:

This building will stand through the future years as a physical monument to Walter S. McAfee—to his intelligence, his graciousness, his courage, his accomplishments, and his caring for all those who worked with or for him. But the true monument to Dr. McAfee will always live in the hearts and minds of the people whose lives he touched and who were enriched by their relationships with him, and that legacy will outlast even this building.⁴⁸

McAfee's widow, Viola, told the *Asbury Park Press*: "He would have loved knowing that this building was named after him, it would have made him so happy."⁴⁹

⁴⁷ *Asbury Park Evening Press*, "3 Signal Scientists Honored," September 12, 1961, 12; "3 at Fort Monmouth Get Army Awards," *New York Times*, September 17, 1961, 124; *Asbury Park Evening Press*, "Awards Fete Set by NBPW Club," May 12, 1971, 24; "4 to Receive Brotherhood Awards," *Asbury Park Press*, August 19, 1976, 7; "Senator to speak at college graduation," *Asbury Park Press*, April 25, 1985, 14; "Borough confers a place in history," *Asbury Park Press*, August 21, 1997, 18.

⁴⁸ John Harnes, "CECOM building dedication honors Space Age pioneer," *Asbury Park Press*, July 29, 1997, 6.

⁴⁹ *Ibid.*



Courtesy U.S. Army Communications-Electronics Command Archive, Aberdeen Proving Ground, Maryland

When the Army's Base Realignment and Closure Commission closed Fort Monmouth in 2011, the Communications-Electronics Command named another building for McAfee, at their new campus at Aberdeen Proving Ground, Maryland. Velma McAfee-Williams, McAfee's only surviving sibling, attended the dedication ceremony and toured the McAfee compound. She observed: "It's a great honor that his line of work and his contributions are being recognized here. This was such an enlightening and overwhelming experience. The tour was outstanding, and I got to go inside various labs and see different programs being worked on in this space." Army Public Affairs Officer Kristen Kushiya reported that McAfee-Williams said while her brother loved

Fort Monmouth and probably would have been sad to see it close, he would have appreciated the larger space and facility.⁵⁰

Then, in 2015, McAfee became the first African American to be inducted into the Army Materiel Command's (AMC) Hall of Fame.⁵¹ The AMC Command Hall of Fame, established in 2012, "honors and memorializes those Soldiers and civilians who have made significant and enduring contributions to AMC and the Army. The Hall of Fame preserves the command's history and recognizes the exceptional leadership, service and dedication of former AMC members for their remarkable efforts."⁵² Historian Susan Thompson, who nominated McAfee for the honor, declared: "Dr. McAfee is one of those individuals whose contributions, both in communications technology and as a mentor to others, makes him an exceptional figure in . . . history. . . . His personal and professional qualities should be more widely appreciated, and therefore, I thought him an ideal candidate for the AMC Hall of Fame."⁵³

And in 2019, the U.S. postal office at 1300 Main Street in Belmar was renamed in his honor.⁵⁴ U.S. Rep. Chris Smith (R-4th District), who introduced the legislation to dedicate the post office building to McAfee, observed: "We remember and honor him for his lifelong commitment to learning, including his service as chairman of the board at Brookdale Community College." He also acknowledged McAfee's perseverance in achieving his goals and pursuing his dreams, noting: "As an African American, Dr. McAfee overcame adversity and prejudice with courage, tenacity,

⁵⁰ Kristen Kushiya, "Legacy of NJ scientist transitioned to MD," October 6, 2011, https://www.army.mil/article/65848/legacy_of_nj_scientist_transitioned_to_md. Accessed February 2, 2022.

⁵¹ Greg Mahall, "First African-American enters AMC Hall of Fame," *The Redstone Rocket*, October 12, 2015.

⁵² "AMC Hall of Fame," <https://www.amc.army.mil/Organization/History/Hall-of-Fame/>. Accessed December 5, 2021.

⁵³ Greg Mahall, "First African-American enters AMC Hall of Fame," https://www.army.mil/article/157432/First_African_American_enters_AMC_Hall_of_Fame/. Accessed January 12, 2022.

⁵⁴ "Post Office Building Renaming Ceremony: Belmar Post Office building to be renamed in honor of former South Belmar resident Dr. Walter S. McAfee," <https://about.usps.com/newsroom/local-releases/nj/2019/0828ma-po-building-renaming-ceremony.htm>. Accessed February 4, 2022.

and faith. . . . His amazing life inspires. He challenges us to strive for excellence. He is a true role model.”⁵⁵ McAfee’s youngest daughter, Marsha McAfee Bera-Morris, spoke of how fitting it was that her father be commemorated in such a public space in the area where he long resided and raised his family, saying: “This moment provides a singular pride and satisfaction for so many of his family and friends and colleagues.”⁵⁶

Recently, Monmouth University established a scholarship fund in Dr. McAfee’s name to “support economically disadvantaged students to attend Monmouth University in pursuit of an education in any of the sciences, while celebrating a distinguished faculty member who broke racial and scientific boundaries.”⁵⁷ Dr. Walter Greason, who has written extensively about New Jersey and particularly the area around Monmouth University, expanded on the significance of having McAfee at Monmouth in a February 2021 scholarship fundraising event, noting that the region around the college “. . . wasn’t always a place dedicated to equal rights and equal justice for everyone. . . . In the 1920s . . . the Ku Klux Klan dominated the Jersey Shore, so just a generation later for someone like Dr. McAfee to become a major contributor to . . . Monmouth College . . . is a major breakthrough.”⁵⁸ The university pointedly decided to establish a scholarship before naming anything on campus for him, believing that investing in the education of students would be the best way to honor his legacy.

⁵⁵ Cathy Goetz, “Belmar Post Office Dedication: Walter S. McAfee Honored for Blazing a Path to Space Age,” <https://www.tapinto.net/towns/belmar-slash-lake-como/sections/honors-and-achievements/articles/belmar-post-office-dedication-walter-s-mcafee-honored-for-blazing-a-path-to-space-age>. Accessed February 1, 2022.

⁵⁶ Susanne Cervanka, “Belmar post office renamed after Walter McAfee, who helped get us to the moon,” *Asbury Park Press*, September 2, 2019.

⁵⁷ “Honoring the Legacy of Walter S. McAfee ‘85HN,” <https://www.monmouth.edu/university-advancement/mcafee/>. Accessed 12 October 2021.

⁵⁸ Matthew Cutillo, “Dr. Walter McAfee’s Legacy Honored by University Faculty,” *The Outlook*, <https://outlook.monmouth.edu/2021/02/dr-walter-mcafee-s-legacy-honored-by-university-faculty/>. Accessed October 21, 2021.

Dr. Walter McAfee surmounted the racism endemic to twentieth-century America and made unique and enduring contributions to the scientific community. He dedicated nearly his entire adult life to government service, while still finding time to mentor the next generation of scholars and slowly chip away at societal injustice. While the communities to which he contributed so much have memorialized him in different ways, the general public knows too little about his accomplishments. We must ensure that the stories of diverse pioneers like Walter McAfee are not excluded from our understanding of the history of the Garden State.



**Courtesy U.S. Army Communications-Electronics Command Archive, Aberdeen Proving Ground,
Maryland**

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