

# Finding Aid to The HistoryMakers® Video Oral History with Wesley Harris

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## Overview of the Collection

<b>Repository:</b>	The HistoryMakers®1900 S. Michigan Avenue Chicago, Illinois 60616 info@thehistorymakers.com www.thehistorymakers.com
<b>Creator:</b>	Harris, Wesley, 1941-
<b>Title:</b>	The HistoryMakers® Video Oral History Interview with Wesley Harris,
<b>Dates:</b>	April 26, 2013
<b>Bulk Dates:</b>	2013
<b>Physical Description:</b>	9 uncompressed MOV digital video files (4:18:35).
<b>Abstract:</b>	Aerospace engineer Wesley Harris (1941 - ) was head of the department of aeronautics and astronautics at MIT. He was also elected as a fellow of the National Academy of Engineering for contributions to the understanding of helicopter rotor noise, for encouragement of minorities in engineering and for service to the aeronautical industry. Harris was interviewed by The HistoryMakers® on April 26, 2013, in Cambridge, Massachusetts. This collection is comprised of the original video footage of the interview.
<b>Identification:</b>	A2013_004
<b>Language:</b>	The interview and records are in English.

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## Biographical Note by The HistoryMakers®

Aerospace engineer Wesley L. Harris was born in Richmond, Virginia on October 29, 1941. His parents, William Harris and Rosa Harris, worked in Richmond's tobacco factories. As a child, Harris was intrigued by airplanes and learned to build different models. In the fourth grade, he won an essay contest about career goals with a paper on how he wanted to become a test pilot. After receiving his B.S. degree with honors in aerospace engineering from the University of Virginia

in 1964, Harris enrolled at Princeton University and graduated from there with his M.S. degree in aerospace and mechanical sciences in 1966 and his Ph.D. degree in aerospace and mechanical sciences 1968.

After completing his Ph.D. at Princeton, Harris taught at the University of Virginia and at Southern University before joining the Massachusetts Institute of Technology (MIT) in 1972 where he served as a professor of aeronautics and astronautics. He established MIT's first Office of Minority Education in 1975 in order to help retain minority students and improve their performance. In 1985, Harris was appointed Dean of the School of Engineering at the University of Connecticut; and from 1990 to 1995, he served as vice president and chief administrative officer at the University of Tennessee Space Institute and then as associate administrator for aeronautics NASA. In 2003, Harris was named head of the department of Aeronautics and Astronautics at MIT in 2003.

Harris' many honors and achievements include serving as chair and member of various boards and committees of the National Research Council, the National Science Foundation, the U.S. Army Science Board, and several state governments. He is a Fellow of the American Institute of Aeronautics and Astronautics and the American Helicopter Society. The National Academy of Engineering elected Harris as a Fellow for contributions to understanding of helicopter rotor noise, for encouragement of minorities in engineering, and for service to the aeronautical industry.

Wesley L. Harris was interviewed by *The HistoryMakers* on April 25, 2013.

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## **Scope and Content**

This life oral history interview with Wesley Harris was conducted by Larry Crowe on April 26, 2013, in Cambridge, Massachusetts, and was recorded on 9 uncompressed MOV digital video files. Aerospace engineer Wesley Harris (1941 - ) was head of the department of aeronautics and astronautics at MIT. He was also elected as a fellow of the National Academy of Engineering for contributions to the understanding of helicopter rotor noise, for encouragement of minorities in engineering and for service to the aeronautical industry.

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## **Restrictions**

### **Restrictions on Access**

Restrictions may be applied on a case-by-case basis at the discretion of The HistoryMakers®.

## **Restrictions on Use**

All use of materials and use credits must be pre-approved by The HistoryMakers®. Appropriate credit must be given. Copyright is held by The HistoryMakers®.

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## **Related Material**

Information about the administrative functions involved in scheduling, researching, and producing the interview, as well as correspondence with the interview subject is stored electronically both on The HistoryMakers® server and in two databases maintained by The HistoryMakers®, though this information is not included in this finding aid.

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## **Controlled Access Terms**

This interview collection is indexed under the following controlled access subject terms.

### **Persons:**

Harris, Wesley, 1941-

Crowe, Larry (Interviewer)

Hickey, Matthew (Videographer)

### **Subjects:**

African Americans--Interviews

Harris, Wesley, 1941---Interviews

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## **Organizations:**

HistoryMakers® (Video oral history collection)

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The HistoryMakers® African American Video Oral History Collection

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## **Occupations:**

Aerospace Engineer

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## **HistoryMakers® Category:**

ScienceMakers

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## **Administrative Information**

### **Custodial History**

Interview footage was recorded by The HistoryMakers®. All rights to the interview have been transferred to The HistoryMakers® by the interview subject through a signed interview release form. Signed interview release forms have been deposited with Jenner & Block, LLP, Chicago.

### **Preferred Citation**

The HistoryMakers® Video Oral History Interview with Wesley Harris, April 26, 2013. The HistoryMakers® African American Video Oral History Collection, 1900 S. Michigan Avenue, Chicago, Illinois.

### **Processing Information**

This interview collection was processed and encoded on 2/5/2020 by The HistoryMakers® staff. The finding aid was created adhering to the following standards: DACS, AACR2, and the Oral History Cataloging Manual (Matters 1995).

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## **Other Finding Aid**

A Microsoft Access contact database and a FileMaker Pro tracking database, both maintained by The HistoryMakers®, keep track of the administrative functions involved in scheduling, researching, and producing the interview.

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## Detailed Description of the Collection

### Series I: Original Interview Footage

Video Oral History Interview with Wesley Harris, Section  
A2013\_004\_001\_001, TRT: 1:28:21 2013/04/26

Wesley Harris describes his family background. He was born October 29th, 1941 in Richmond, Virginia. His mother, Rosa Minor, was born on April 15th, 1914 in Chesterfield County, Virginia. Harris can trace his mother's side of the family to Matilda, a slave sold in 1939 on Franklin Street in Richmond. After the Civil War they worked as sawmill workers in Chesterfield County and moved to Richmond during the Great Depression to work in the tobacco factories. His mother did not graduate from high school and married Harris' father as a teenager. Harris' father, William McKinley Harris, was born in Powhatan County, Virginia. He moved with his family to Richmond, Virginia, where he met Harris' mother. Harris' father was a chef and owned his own restaurant, the Norfolk Grill, which served the workers at the tobacco factories.

Affirmative action programs.

Affirmative action programs.

Affirmative action programs.

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Affirmative action programs.

Video Oral History Interview with Wesley Harris, Section  
A2013\_004\_001\_002, TRT: 2:31:58 2013/04/26

Wesley Harris describes the personalities of his parents, Rosa Minor and William McKinley Harris, and who he takes after. He talks about his older siblings, Mary Elizabeth Harris, Roosevelt Harris, and Sylvester Harris. He also has a twin brother, William Harris Jr., with whom he is very close. Harris remembers his first dog, an

Airedale terrier named Jack, Sylvester teaching him how to ride a bicycle, and teaching his brother William how to tie his shoes. He also remembers the sights, sounds, and smells of his childhood. In order to get to and from school in Richmond, Virginia Harris and his siblings had to fight their way through a white district. He discusses his mentors in school. Harris recalls winning first place in the African American Virginia State science fair but only winning third place in the white Virginia State science fair.

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Video Oral History Interview with Wesley Harris, Section  
A2013\_004\_001\_003, TRT: 3:30:58 2013/04/26

Wesley Harris describes his high school science fair project, which involved creating a cloud chamber to observe the trajectory of alpha particles. His teacher and advisor on the project, Eloise Bose Washington, encouraged him to attend the University of Virginia in Charlottesville, Virginia. Harris attended the University of Virginia from 1960-1964 and majored in engineering, the only major available to African Americans. Harris discusses the racial discrimination that he faced from both students and teachers. George B. Matthews and John Edward Scott, both professors of Harris, encouraged him to become an honors student. They also encouraged him to attend graduate school at Princeton University in Princeton, New Jersey. Harris served as chair of the Thomas Jefferson Council on Human Relations, a group that worked to promote interracial equality. In 1963 Harris brought Dr. Martin Luther King Jr. to speak at the University of Virginia.

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Video Oral History Interview with Wesley Harris, Section  
A2013\_004\_001\_004, TRT: 4:27:48 2013/04/26

Wesley Harris remembers meeting Dr. Martin Luther King, Jr. in 1963 when the Thomas Jefferson Council on Human Relations brought him to speak at the University of Virginia, Charlottesville, Virginia. He also recalls attending the March on Washington. The U.S. Space Program started gaining momentum during Harris' lifetime, which greatly impacted his education from the high school to the graduate level. His doctoral education at Princeton University in Princeton, New Jersey was funded by a National Aeronautics and Space Administration traineeship. Harris attended Princeton University from 1964 to 1968. He talks about his thesis advisor, George Bienkowski. Harris' doctoral dissertation involved creating a theoretical model for strong shockwaves and gas mixtures, describing how the shockwaves from a probes descent into an atmosphere affects its readings of the atmosphere's gas content. Harris describes how he was eventually recruited as a professor at the Massachusetts Institute of Technology in Cambridge, Massachusetts.

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Video Oral History Interview with Wesley Harris, Section  
A2013\_004\_001\_005, TRT: 5:28:03 2013/04/26

Wesley Harris describes how his dissertation, a theoretical model on the effects of shockwaves and gas mixtures on probe readings, explains issues in the field of aeronautics and astronautics. After graduating in 1968 from Princeton University, Princeton, New Jersey, Harris taught at the University of Virginia in Charlottesville, Virginia. Harris also became a professor at Southern University in Baton Rouge, Louisiana from 1970-1971. He describes the physics department at Southern University and explains why he left to teach at the University of Virginia again. Harris discusses being a professor at the University of Virginia, the university where he received his

undergraduate degree. In 1972 Leon Trilling convinced Harris to become a professor at the Massachusetts Institute of Technology in Cambridge, Massachusetts. He also talks about how he met his first wife, Myrtle, their six children, and their move to Newton, Massachusetts.

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Video Oral History Interview with Wesley Harris, Section  
A2013\_004\_001\_006, TRT: 6:29:01 2013/04/26

Wesley Harris describes researching and teaching at the Massachusetts Institute of Technology (MIT), starting as an associate professor in 1972. While at MIT Harris researched helicopter rotor acoustics to make helicopter quieter and more efficient as well as the unsteady transonic flow problem, where at certain speed pockets of transonic flow form and produce shockwaves. In 1975 Harris worked at the National Aeronautics and Space Administration to increase their capability in computational fluid dynamics through supercomputers. Harris received the Irwin Sizer Award from MIT for significant improvement to education because of the program he developed that determined the performance level of first year students. Harris left MIT in 1985 to spend five years building the engineering department at the University of Connecticut in Storrs, Connecticut. Harris became a professor at the University of Tennessee Space Institute in Tullahoma, Tennessee in 1990. Harris talks about the history of Tennessee Valley.

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Video Oral History Interview with Wesley Harris, Section  
A2013\_004\_001\_007, TRT: 7:28:21 2013/04/26



Wesley Harris discusses the University of Tennessee Space Institute in Tullahoma, Tennessee, and why he decided to become vice president and chief administrative at the Space Institute. In 1992 Harris was selected by President Bill Clinton to serve as the associate administrator for aerodynamics at the National Aeronautics and Space Administration (NASA), where he managed a \$2 billion budget and NASA's aeronautical programs. While at NASA Harris was made a fellow of the American Helicopter Society. He reflects on his work in NASA and explains why he decided to leave NASA due to an altercation. Harris returned to the Massachusetts Institute of Technology in Cambridge, Massachusetts in 1995 and became a part of the Lean Aerospace Initiative. In 2000 he developed the Lean Sustainment Initiative. Both initiatives are focused on decreasing costs and increasing the performance of aircraft by eliminating waste.

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Video Oral History Interview with Wesley Harris, Section  
A2013\_004\_001\_008, TRT: 8:28:18 2013/04/26

Wesley Harris describes becoming a member of the National Academy of Engineering in 1995, during the same time period that he was leaving the National Aeronautics and Space Administration (NASA). The same year Harris became a professor for the second time at the Massachusetts Institute of Technology (MIT), Cambridge, Massachusetts. In 2000 Harris spent a year as the Berry Goldwater Chair of American Institutions at Arizona State University in Phoenix, Arizona. Harris discusses the aeronautics and astronautics department at MIT and describes the James Shirley incident. In 2001 Harris was appointed as the Charles Stark Draper Professor of Aeronautics and Astronautics at MIT. Harris testified before Congress in 2012 on NASA's flight test capabilities. Harris predicts the future of NASA and talks

about STEM (science, technology, engineering, and mathematics) education in the United States.

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Video Oral History Interview with Wesley Harris, Section  
A2013\_004\_001\_009, TRT: 9:25:47 2013/04/26

Wesley Harris describes his research on the fluid dynamics of blood flow, which was inspired by diabetes and sickle cell anemia. He shares his hopes and concerns for the African American community. Harris talks about his ex-wives, his six children, and his grandchildren. In high school Wesley Harris was the captain of the football team, and he remembers the time he spent on the team. Harris reflects on his life, legacy, and how he would like to be remembered.

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