Richard Hallion

Education:

BA (High Honors in History), University of Maryland, 1970

Ph.D, University of Maryland, 1975

Leadership Program, Federal Executive Institute, Charlottesville, VA, 1992

National Security Studies Program, John F. Kennedy School of Government, Harvard University, 1993

Positions Held:

Curator of Science and Technology, and subsequently Curator of Space Science, National Air and Space Museum, Smithsonian Institution, 1974-1980

NASA Contract Historian, and Instructor in the history of aerospace engineering; adjunct faculty, graduate program in general administration, University of Maryland and UM University College; and independent aerospace consultant, 1980-1982.

Air Force Flight Test Center Chief Historian, Edwards AFB, CA 1982-1986

Director, Special Staff Office, Aeronautical Systems Division, Wright-Patterson AFB, OH, 1986-1987

Harold Keith Johnson Visiting Chair in Military History, US Army War College, Carlisle, PA, 1987-1988

Executive Historian for AF Special Programs, Headquarters Air Force Systems Command, Andrews AFB, MD 1988-1990; simultaneously held the 1990-1991 Charles Lindbergh Visiting Professorship in Aerospace History, National Air and Space Museum, Smithsonian Institution

Senior Issues and Policy Analyst, Secretary's Staff Group, Office of the Secretary of the Air Force, 1991

The Air Force Historian, Headquarters United States Air Force, Pentagon, Washington, D.C., 1991-2002

Panel Member, USAF Scientific Advisory Board "Why and Whither Hypersonics in the USAF?" Study, 2000

Coordinator for Air Force Centennial of Flight, and representative to the Centennial of Flight Federal Advisory Board, 2002-2003

Senior Advisor for Air and Space Issues, Directorate for Security, Counter-intelligence, and Special Programs Oversight, Office of the Secretary of the Air Force, 2004-2006 (retired from AF civil service Nov 2006)

Special Advisor for Aerospace Technology to the Air Force Chief Scientist, 2006-2008

Verville Fellow, National Air and Space Museum, Smithsonian Institution, 2007-2008

Senior Advisor, Commonwealth Research Institute/Concurrent Technologies Corporation, 2007-

Member, Board of Advisors, Royal Air Force Centre for Air Power Studies, RAF Cranwell, UK

Member, Editorial Advisory Board, Air & Space Magazine

Panel Member, National Research Council Committee on the Examination of the U. S. Air Force's Science, Technology, Engineering, and Mathematics (STEM) Workforce Needs, 2008-2009

Vice President, Earth Shine Institute, 2009-

Member, Airpower Experts Group, Air Force Association, 2009-

Member, Transformational Technologies Studies Panel, Office of the Air Force Chief Scientist, 2009-2010

MediaFusion Inc. Editor for the Aeronautics Directorate, Headquarters, National Aeronautics and Space Administration, Washington, D.C. 2009-

Research Associate in Aeronautics, National Air and Space Museum, Smithsonian Institution, 2010-

Academic Honoraries:

Phi Alpha Theta (History);

Pi Sigma Alpha (Political Science);

Phi Kappa Phi (General Scholarship)

Clubs:

Royal Air Force Club (Piccadilly, London)

National Aviation Club (Arlington, VA)

Shalimar Pointe Golf Club (Shalimar, FL)

Memberships:

Air Commando Association

Air Force Association

American Institute of Aeronautics and Astronautics

Association of Former Intelligence Officers

Association of Naval Aviation

Inter-Agency Study Group

Intercollegiate Studies Institute

International Test and Evaluation Association

National Association of Scholars

National Defense Industrial Association

Royal Aeronautical Society

Royal United Services Institute for Defence Studies

The Tailhook Association

United States Naval Institute

University of Maryland Alumni Association

Historical Associations

Air Force Historical Foundation

American Historical Association

American Aviation Historical Society

Naval Historical Foundation

Organization of American Historians

Royal Historical Society

Society for the History of Technology

Awards and Honors:

- 1974 Daniel and Florence Guggenheim Foundation Fellow.
- 1976 History Manuscript Award, Amer. Inst. of Aeronautics & Astronautics (AIAA).
- 1979 Dr. Robert H. Goddard Essay Award, National Space Club.
- 1979 Young Engineer-Scientist Award, National Capitol Section, AIAA.
- 1982 AIAA Distinguished Lecturer in the History of Flight.
- 1984 Lt. Col. Roy Mase Trophy, Air Force Systems Command.
- 1984 Commander's Distinguished Paper, Air Force Systems Command.
- 1985 Lt. Col. Roy Mase Trophy, Air Force Systems Command.
- 1985 Commander's Distinguished Paper, Air Force Systems Command.
- 1985 Citation of Honor, Air Force Association.
- 1986 Meritorious Civilian Service Medal, U.S. Air Force.
- 1988 Commander's Award for Public Service, U.S. Army.
- 1990 Ira Eaker Award, Air University.
- 1993 Aviation-Space Writers Association Premier Award for defense coverage.
- 1999 Louis H. Bauer Lecturer, Aerospace Medical Association.
- 2000 Friend of the Society of Experimental Test Pilots.
- 2004 Inaugural Fellow, Earth Shine Institute.
- 2005 Annual Award of the Conference of Historic Aviation Writers (CHAW).
- 2006 Outstanding Civilian Career Service Award, HQ USAF.
- 2006 National Aviation Hall of Fame Combs-Gates Award.
- 2006 Jalonick Distinguished Lecturer, University of Texas at Dallas.
- 2007 AIAA Gardner Lasser Aerospace History Literature Prize.
- 2008 Fellow, American Institute of Aeronautics and Astronautics.
- 2009 Fellow, Royal Aeronautical Society.

2010 Fellow, Royal Historical Society.

2011 Citation of Honor, Air Force Association.

Publications:

Authored Books:

Supersonic Flight: Breaking the Sound Barrier and Beyond (New York: The Macmillan Co., in association with the Smithsonian Institution, 1972); reissued in expanded format by Brassey's in 1997, ISBN 1-85753-253-8.

Legacy of Flight: The Guggenheim Contribution (Seattle: University of Washington Press, 1977), ISBN 0-295-95542-2.

Test Pilots: The Frontiersmen of Flight (Garden City, NY: Doubleday, 1981); reissued in expanded format by the Smithsonian Institution Press, 1988), ISBN 0-385-15469-0.

Designers and Test Pilots, a volume in the Time-Life Epic of Flight series (Alexandria, VA: Time-Life Books, 1982), ISBN 0-8094-3316-8.

Rise of the Fighter Aircraft, 1914-1918, (Annapolis: Nautical and Aviation Publishing, 1984), ISBN 0-933852-42-8.

On the Frontier: Flight Research at Dryden, 1946-1981 (Washington, D.C.: National Aeronautics and Space Administration, 1985); reissued in expanded format by the Smithsonian Institution Press in 2003, with additional material furnished by Michael H. Gorn covering post-1981 developments, ISBN 1-58834-134-8.

The Naval Air War in Korea (Baltimore: Nautical & Aviation Publishing 1986); to be reissued in 2011 by University of Alabama Press, ISBN 0-933852-47-9.

Strike from the Sky: The History of Battlefield Air Attack, 1911-1945 (Washington, D.C.: Smithsonian Institution Press in association with the U.S. Army Military History Institute, 1989); to be reissued in 2010 by Univ. of Alabama Press, ISBN 0-87474-452-0.

Storm Over Iraq: Air Power and the Gulf War, (Washington, D.C.: Smithsonian Institution Press, 1992), ISBN 1-56098-190-3.

Taking Flight: Inventing the Aerial Age from Antiquity to the First World War, (Oxford: Oxford University Press, 2003), ISBN 0-19-516035-5.

Edited Books:

The Wright Brothers: Heirs of Prometheus (Washington, D.C.: Smithsonian Institution Press, 1978), ISBN 0-87474-504-7.

Apollo: Ten Years Since Tranquility Base (Washington, D.C.: Smithsonian Institution Press, 1979); co-edited with Tom D. Crouch, ISBN 0-87474-505-5.

The Hypersonic Revolution: Eight Case Studies in the History of Hypersonic Technology, two volumes (Wright-Patterson AFB, OH: Air Force Aeronautical Systems Division, 1987-1988); expanded to three volumes, with the third authored by Lawrence Schweikart, and published by the Air Force History and Museums Program in 1997 [no ISBN number issued].

Air Power Confronts an Unstable World (London: Brassey's, 1997), ISBN 1-85753-238-4.

Silver Wings, Golden Valor: The USAF Remembers Korea (Washington, D.C.: Headquarters U.S. Air Force, 2006) [no ISBN number issued].

NASA's Contributions to Aeronautics, two volumes, (Washington: NASA, 2010), ISBN 978-0-16-084637-3.

Unclassified Monographs, Studies, and Position Papers:

Fighting Scouts: The Emergence of the Fighter Over the Western Front, 1914-1917 (Edwards AFB, CA: Air Force Flight Test Center, 1983) [no ISBN number issued].

The Path to the Space Shuttle (Edwards AFB, CA: Air Force Flight Test Center, 1983) [no ISBN number issued].

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"Military Technology and the Pacific War," in Jacob Neufeld, William T. Y'Blood, and Mary Lee Jefferson, eds., *Pearl to VJ Day: World War II in the Pacific* (Washington: Air Force History and Museums Program, 2000), 69-89 [no ISBN number issued].

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"Air Power and Asymmetric Threats," in Keith Brent, ed., *Air Power and Joint Forces* (RAAF Base Fairbairn: Royal Australian Air Force Aerospace Centre, 2000), 61-87, ISBN 0-0642-26557-7.

"The Twentieth Century: A Century Shaped by Air Power," in John Andreas Olsen, ed., *A Second Aerospace Century* (Trondheim: The Royal Norwegian Air Force Academy, 2001), 47-68 [no ISBN number issued].

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"Technology for the Supersonic Era," in Philip Jarrett, ed., Faster, Further, Higher: Leading-Edge Aviation Technology Since 1945, a volume in the Putnam's History of Aircraft series (London: Putnam, 2002), 29-52, ISBN 0-85177-876-3.

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"The Halcyon Years," in Walter J. Boyne, ed., *Moving America Safely: 50* Years of the Federal Aviation Administration (Tampa: Faircourt, 2008), 20-27 [no ISBN number issued].

"Expeditionary Air Power in the First Gulf War," in Keith Brent, ed., *Air Expeditionary Operations from World War II Until Today* (RAAF Base Fairbairn: Royal Australian Air Force Air Power Development Centre, 2009), 79-95, [no ISBN number issued].

"Air and Space Power: Climbing and Accelerating," in John Andreas Olsen, ed., *A History of Air Warfare* (Washington, D.C.: Potomac Books, Inc., 2010), 371-393, ISBN 978-1-59797-440-0.

"The NACA, NASA, and the Supersonic-Hypersonic Frontier," in Steven J. Dick, ed., *NASA's First 50 Years: Historical Perspectives* (Washington: National Aeronautics and Space Administration, 2010), 223-274, ISBN 978-0-16-084965-7.

"U.S. Air Power," in John Andreas Olsen, ed., *Global Air Power* (Washington, D.C.: Potomac Books, inc., 2011), 63-136, ISBN 978-1-59797-680-0.

Articles and Papers

"The American Buzz-Bombs," *Aeroplane Monthly* 4, no. 11 (Nov. 1976): 566-571.

"Convair's Delta Alpha: The XF-92A," Air Enthusiast Quarterly, no. 2 (Nov. 1976-Feb. 1977): 177-185.

"Twilight of the Piston-Powered Airplane: The Republic XF-12 / RC-2 Rainbow," *Aviation Quarterly* 3, no. 1, (Spring 1977).

"X-4: The Bantam Explorer," *Air Enthusiast Quarterly,* no. 3 (Mar.-Jun. 1977), 18-25.

"Serendipity from Santa Monica: The Story of the Douglas X-3," *Air Enthusiast Quarterly*, no. 4 (Jul.-Oct. 1977): 129-136.

"American Flight Research and Flight Testing: An Overview from the Wright Brothers to the Space Shuttle," *Cockpit: The Society of Experimental Test Pilots Technical Review* 13, no. 3 (Fall 1977): 37-49.

"Saga of the Rocket Ships: The X-1, D-558-2, and the X-2," *Air Enthusiast Five* (Nov. 1977-Feb. 1978): 68-78.

"Saga of the Rocket Ships: The X-15," Air Enthusiast Six (Mar.-Jun. 1978): 90-93, 134-138.

"Saga of the Rocket Ships: The Lifting Bodies," *Air Enthusiast Eight* (Oct. 1978-Jan. 1979): 51-59.

"X-15: Highest and Fastest of Them All," *Flight International* 114, no. 3640 (Dec. 23, 1978): 2256-2258, 2262.

"The Soviet Stovepipes," Air Enthusiast Nine (Feb.-Mar. 1979): 55-60.

"Lippisch, Gluhareff, and Jones: The Emergence of the Delta Planform and the Origins of the Sweptwing in the United States," *Aerospace Historian* 26, no. 1 (Spring 1979): 1-10.

- "P-80: Story of a Star," Air Enthusiast Eleven (Nov. 1979-Feb. 1980): 54-70.
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 - "Mach 3 Aircraft in the 1960's," Exxon Air World 33, no. 2 (1981): 20-23.
- "The Rise of Air and Space," *Astronautics & Aeronautics* 19, no. 5 (May 1981): 64-77.
- "The Path to Space Shuttle: The Evolution of Lifting Reentry Technology," Journal of the British Interplanetary Society 36, no. 12 (Dec. 1983): 523-541.
 - "Breaking Through Mach 2," Air World 37, no. 2 (Summer 1985): 15-18.
- "Girding for War: Perspectives on Research, Development, Acquisition, and the Decision-making Environment of the 1980s," *Air University Review* 37, no. 6 (Sep.-Oct. 1986): 46-62.
- "Doctrine, Technology, and Air Warfare: A Late Twentieth-Century Perspective," *Airpower Journal* 1, no. 2 (Fall 1987): 16-27, available at http://www.airpower.maxwell.af.mil/airchronicles/apj/apj87/fal87/hallion.html.
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- "Armour, Ground Movement, and Air Attack: Lessons from Previous Conflicts," *Air Clues: The Royal Air Force Magazine* 45, n. 7 (Jul. 1991): 244-250.
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- "Naval Air Operations in Korea," *Air Power History* 40, no. 3 (Fall 1993): 31-41.
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"The History of Hypersonics: Or, 'Back to the Future—Again and Again,'" Fundamental Aeronautics Program First Annual Review, Aeronautics Directorate, National Aeronautics and Space Administration, New Orleans, LA, Oct. 2007.

"Assessing International Aviation: The Lindberghs as Acquirers and Analyzers of Air Intelligence," Earth Shine Institute, Washington, D.C., Nov. 2007.

"American Aerospace and the Second Century of Winged Flight," Inter-Agency Seminar Group, Brookings Institution, Washington, D.C. Jan. 2008.

"Air Power in the First Gulf War," a presentation at the Air Power in Recent Wars seminar, Madingley Hall, Cambridge University, Cambridge, UK, Feb. 2008.

"Is What You See What You Get? Reflections on the Visual Image," International Society of Aviation Photography, Dallas, TX, March 2008.

"Expeditionary Air Power in the First Gulf War," Royal Australian Air Force History Conference, Canberra, Australia, April 2008.

"Reflections on America's Military Aviation History," National Air and Space Museum, Smithsonian Institution, Washington, D.C. May 2008.

"Mutual Debt: Europe, America, and the Transfer of Aeronautical Knowledge and Practice, 1908-1958," The International Community of Flight Conference, Wright State University, Dayton, OH, May 2008.

"Air Dominance: The *Essential* Requirement," Air Force Association Annual Symposium, Washington, D.C. Sep. 2008.

"Supersonics and Hypersonics: Where We've Been, Where We Are, Where We May Be Going," House of Representatives Space and Aeronautics Subcommittee, Washington, D.C. Nov. 2008.

"Air Power and the Air Force: Reflections and Perspectives," 8th Air Force Commander's Air-Mindedness Seminar, Barksdale AFB, LA, Feb. 2009.

"Air Power and Air Vehicles: Old Lessons, Evolving Technology, and New Challenges," Air Force Research Laboratories' Air Vehicles Directorate, Wright-Patterson AFB, OH, Feb. 2009.

"The History of Hypersonics," National Space & Missiles Materials Symposium, Henderson, NV, June 2009.

"Crete: Confronting the Realities of Emerging Sea-Air War;" "The Maltese Bottle-Stopper: Malta's Role and Influence in the Mediterranean Sea-Air-Land War;" and "Sicily, Salerno, Anzio: Setting the Stage for the Death of Fascism and the Liberation of Europe;" three PPT presentations made while leading a Smithsonian

Journeys / Stanford University Alumni Study Tour through the Mediterranean in June 2009.

"The Application of Air Power in Combating Terrorism," ASEAN [Association of Southeast Asian Nations] Air Chiefs Conference, Brunei Darussalam, Aug. 2009.

"A Century of Flight Test and Flight Research," Annual Joe Sutter Dinner, Museum of Flight and Seattle Branch of the Royal Aeronautical Society, Nov. 2009.

"Historical Perspective on Current Air Force Issues," Air Force Materiel Command Commanders' Conference, Air Armament Center, Eglin AFB, Apr. 2010.

"Propulsion & Performance: Reflections on Innovation, Research, and Application," JANNAF [Joint Army-Navy-NASA-Air Force] Propulsion Conference, Colorado Springs, CO, May 2010.

"Airworthiness and Sustainment: The Continuing Challenge," Aircraft Airworthiness and Sustainment Conference, Austin, TX, May 2010.

"Air Power in the Korean War: America's First Jet Age Air War," National Museum of the USAF, Dayton, OH, June 2010.

"Hypersonics and Power Projection: Challenges and Opportunities," Mitchell Institute for Airpower Studies, Arlington, VA, June 2010.

"The Battle of Britain in American Context and Perspective," Battle of Britain 70th Anniversary Symposium, Museum of Flight, Seattle, WA, Sep 2010

"Resolving Unknowns, Closing Gaps, and Refining Understanding: Flight Test and Test Pilots in the First Century After Kitty Hawk," Central Section, Society of Experimental Test Pilots, Wichita, KS, Oct 2010.

"Hypersonic Flight Test," Southeast Section, Society of Experimental Test Pilots, Ft. Walton Beach, FL, Feb 2011.

"Rhythms of Speed and Streamlining: The Transformation of American Aviation," Hofstra Cultural Center 1935: The Reality and Promise symposium, Hofstra University, Hempstead, Long Island, NY, Apr 2011.

"A Century of Naval Aviation," National Council on Public History *Crossing Borders/Building Communities—Real and Imagined* conference, National Museum of Naval Aviation, Pensacola Naval Air Station, Pensacola, FL, April 2011.

"Bridging Oceans, Bridging Cultures;" "The Atlantic Millennium;" "The Atlantic Skyway;" "Grey Seas, Stormy Skies;" "This New Ocean: From Seafarers to Spacefarers;" five PPT presentations made as a Lecturer on Celebrity Cruise Lines Atlantic-Mediterranean Voyage in May 2011.

"The Naval Air War in Korea: Maritime Air Power in a Limited War," Centennial of Naval Aviation Forum, 100 Years of Achievement and Progress symposium, Virginia Beach Convention Center, Virginia Beach, VA, Sep 2011.

"The Air War in Korea: Coalition Air Power in the Context of Limited War, Korea: In from the Cold symposium, Australian War Memorial, Canberra, Australia, Oct. 2011

"Hypersonics: Where We've Been, Where We're Going," Order of Daedalians, Seagull Flight #61, Ft. Walton Beach, FL, Oct. 2011.

"American Air Power," Global Air Power Conference, Finnish Air Force Academy, Jyväskylä, Finland, Oct. 2011.

"The Aerospace Sciences Meeting at 50: Tracking a Half-Century of Advancement," 50th AIAA Aerospace Sciences Meeting and Symposium, Nashville, TN, Jan 2012.

"Flight Test Engineering's Contributions to Aviation Testing," Society of Flight Test Engineers Emerald Coast Chapter, in association with the American Institute of Aeronautics and Astronautics, National Defense Industrial Association, International Test and Evaluation Association, Society of Old Crows, and the Air Force Association, Eglin AFB, FL, Jan 2012.

"Fighter Technology and Tactics in the Great War," Aviation in the First World War symposium, Museum of Flight, Seattle, Washington, April 2012.

Flying Experience (as observer, not pilot) in Various Military Aircraft.

Northrop T-38A Talon	Aero-Commander L-26 (NASA)
INUITION ISSUE TAINT	4610-6011111811061 F-20 1114041

Calspan VStab Learjet Beech C-12

Lockheed TF-104G Starfighter BAe Canberra T.4 (RAF)

Republic F-105F Thunderchief Boeing KC-135A / E / R Stratotanker

McDonnell-Douglas F-4G Phantom II Cessna O-2A

GD-Grumman EF-111A Sparkvark Lockheed C-130B / E / H Hercules

McDonnell-Douglas F-15D Eagle McDonnell-Doug. VC-9C Nightingale

McDonnell-Doug. F-15E Strike Eagle Convair C-131D Samaritan

General Dyn. NF-16B Fighting Falcon Lockheed C-141B Starlifter

Lockheed C-5A / B Galaxy

McDonnell-Douglas KC-10A Extender

McD-Doug. C-17A Globemaster III

Pilatus PC-12 (Finnish AF)

Vickers VC.10K.2 (RAF)

Lockheed Tristar K.1 (RAF)

North American TF-51D Mustang

Boeing-Stearman PT-13D Kaydet

Boeing B-17G Flying Fortress

Bell AH-1S Cobra

Bell HH-1H Huey

Westland Sea King HAR 3 (RAF)

[Current as of 1 May 2012]