

# THOMAS M. MCNISH, MD, MPH

## CURRICULUM VITAE

### EDUCATION AND CERTIFICATIONS

MPH	University of Texas Health Science Center at Houston, School of Public Health Houston, Texas	1982
MD	Emory University School of Medicine Atlanta, Georgia	1978
BS	Engineering Science (Aeronautics and Astronautics) United States Air Force Academy Colorado Springs, Colorado	1964

### POST GRADUATE MEDICAL STUDIES

Biological Studies Emory University Atlanta, Georgia	1973-1974
Resident, Family Practice University of Texas Health Science Center San Antonio, Texas	1978-1981
Resident, Aerospace Medicine United States Air Force School of Aerospace Medicine Brooks AFB, Texas	1981-1983
Crash Survival Investigation School International Center for Safety Education Tempe, Arizona	1983
Traffic Accident Reconstruction Northwestern University Traffic Institute Evanston, Illinois	1995

Vehicle Safety Restraint Systems TOPTEC 1999  
Society of Automotive Engineers  
Costa Mesa, California

## **PROFESSIONAL EXPERIENCE**

Principal Consultant 1994-Present  
Biodynamic Research Corporation  
San Antonio, Texas

Command Surgeon 1991-1994  
Office of Air Force Reserve  
Pentagon, Washington, D.C.

Chief, Flight Medicine 1988-1991  
Office of the Air Force Surgeon General  
Bolling AFB, Washington, D.C.

Director of Base Medical Services and Hospital Commander 1986-1988  
Holloman AFB, New Mexico

Director of Base Medical Services and Hospital Commander 1985-1986  
Myrtle Beach AFB, South Carolina

Chief, Aeromedicine, and Commander 1983-1985  
354<sup>th</sup> Tactical Hospital (Air Transportable),  
Myrtle Beach AFB, South Carolina

Prisoner of War, North Vietnam 1966-1973

United States Air Force Combat Pilot 1966

United States Air Force Pilot Training 1964-1966

## **AVIATION RATINGS AND EXPERIENCE**

Senior Flight Surgeon 1977  
1200 Hours, (650 as Pilot/Physician)

Command Pilot  
Mission-Support A-10 Pilot (450 Hours) 1983-1986

Mission-Support AT-38 Pilot (150 Hours) 1986-1988

1300 Hours Total Military Pilot Time  
(T-37, T-38, F-105, AT-38B, and A-10)

1000 Hours in Fighter-Type Aircraft	
120 Hours Combat Time (F-105)	
Commercial Pilot	1966
FAA Certified Flight Instructor, Instrument	1982

## **PROFESSIONAL REGISTRATIONS AND CERTIFICATIONS**

State Board of Medical Examiners, State of Texas	1979-Present
License #F3226	
Physician Emeritus	2022
Diplomate of the National Board of Medical Examiners	1981
Certification #199150	
Board Certified, American Board of Family Practice	1981, 1988, 1995
Board Certified, Aerospace Medicine	
American Board of Preventive Medicine	1985-Present

## **PROFESSIONAL AFFILIATIONS**

International Academy of Aviation and Space Medicine	2013-Present
American Academy of Family Practice	1981-2010
Texas Academy of Family Practice	1981-1983, 1994-Present
Uniformed Services Academy of Family Practice	1983-1994
Texas Medical Association	1979-1983, 1994-Present
Bexar County Medical Society	1979-1983, 1994-Present
Bexar County Medical Society	
Committee on Disaster Medical Care	1996-2015
Aerospace Medicine Association	1979-Present
Associate Fellowship Granted	1986
Fellowship Granted	1988
Member, Scientific Programs Committee	1987-2014
Member, Education and Training Committee	1988-1998
Member, Membership Committee	1993-1994
Alternate Representative to the Federal Aviation	
Administration (FAA) Aviation Rulemaking	
Advisory Committee	1991-1993
Society of USAF Flight Surgeons	
Member, Board of Governors	1986-1996
Vice President/President Elect	1991-1992
President	1992-1993

Space Medicine Society	1984-Present
Executive Board Member	1992-1995
Chairman, Membership Committee	1992-1994
International Association of Military Flight Surgeon Pilots	1989-Present
Scientific Program Director	1989-1991
President	1991-1993
The Aerospace Human Factors Association (Charter Member)	1990-Present
Society of Medical Consultants of the Armed Forces	1993-2014
Society of Automotive Engineers	1995-Present
Association for the Advancement of Automotive Medicine	1996-Present
Association of Military Surgeons of the United States	
Member, Executive Council	1991-1994
United States Air Force Academy Association of Graduates,	
Life Member	1964-Present
United States Air Force Association, Life Member	
Order of Daedalians Life Member	
Flight Captain: Flight 77	1985

## COMMITTEES AND APPOINTMENTS

Clinical Adjunct Professor, USAF School of Aerospace Medicine	2008-Present
Clinical Assistant Professor	2001-2014
Department of Preventative Medicine and Community Health	
The University of Texas Medical Branch at Galveston	
Chief Resident in Family Practice	
University of Texas Health Science Center at San Antonio	1977-1978
Tactical Air Command Weapons System Flight Surgeon for the A-10 (Pilot/Physician)	1983-1986
Tactical Air Command Weapons System Flight Surgeon for the AT-38B and F-5 (Pilot/Physician)	1986-1988
Consultant in Aerospace Medicine to the Command Surgeon, Tactical Air Command	1986-1988
Program Director (Office of the USAF Surgeon General) Design and Development of Advanced Spatial Disorientation Trainer	1988-1991
Consultant to the Air Force Surgeon General, Aerospace Medicine	1988-Present
NASA Flight Surgeon	1987-1994
Emergency Medical Services Coordinator for Space Shuttle Activities at White Sands Space Harbor	1987-1988
Program Director, USAF Pilot-Physician Program	1988-1994
Chairman, USAF Surgeon General Working Group on Standardization of Laboratory Lipid Studies	1988-1991

Clinical Staff, Aerospace Medicine, Malcolm Grow USAF Medical Center, Andrews AFB, Maryland	1988-1994
Chairman, USAF Surgeon General Aircrew Spectacle Working Group	1989-1991
Chairman, Aeromedical Committee of COMBAT EDGE (Positive Pressure Breathing System for G-Protection) System Safety Working Group	1989-1991
Office of Primary Responsibility, author, USAF Implementation Plan for Use of Contact Lenses by Aircrew	1989
Member, Department of Defense Joint Advisory Committee on Clinical Hyperbaric Medicine	1990-1991
Medical Director, "Operation Yellow Ribbon" program to repatriate American prisoners of war held in Iraq during the Persian Gulf Conflict	1991
Clinical Assistant Professor of Family Practice F. Edward Herbert School of Medicine Uniformed Services University of Health Sciences Bethesda, Maryland	1990-1994
Chairman, National Advisory Committee on Former Prisoners of War Department of Veterans Affairs	1995-2015
Chairman, Science Advisory Board Center for Prisoner of War Studies	1998-2000
Founding Member, American College of Aerospace Medicine Aerospace Medical Association	1998-Present

## **MILITARY EDUCATION**

Undergraduate Pilot Training, Williams AFB, Arizona	1964-1965
Advanced Pilot Training and F-105 Combat Crew Training, Nellis AFB, Nevada	1965-1966
Basic Survival Training, Stead AFB, Nevada	1965
Water Survival Training, Lake Meade, Nevada	1966
PACAF Jungle Survival Training, Clark AFB, Philippines	1966
Primary Course in Aerospace Medicine, Brooks AFB, Texas	1977
Sea Survival Training, Homestead AFB, Florida	1982
Compression Chamber Team Training, Brooks AFB, Texas	1982
Arctic Survival Training, Eielson AFB, Alaska	1983
Battlefield Medicine, Brooks AFB, Texas	1983
Fighter Lead-In Training, Holloman AFB, New Mexico	1983
A-10 Upgrade Training, Davis-Monthan AFB, Arizona	1983
AT-38B Upgrade Training, Holloman AFB, New Mexico	1986
Air War College Associate Programs Diplomate (Seminar)	1987

## **MILITARY SERVICE**

USAF ROTC, North Carolina State University, Raleigh, North Carolina	1959-1960
Cadet, USAF Academy, Colorado	1960-1964
Student Pilot, Williams AFB, Arizona	1964-1965
F-105 Pilot, Nellis AFB, Nevada	1965-1966
F-105 Pilot, Takhli RTAFB, Thailand (June-Sept)	1966
Prisoner of War, North Vietnam	1966-1973
AFIT Student, Biological Sciences, Western Carolina University, Cullowhee, North Carolina (June-Aug)	1973
AFIT Student, Biological Sciences, Emory University, Atlanta, Georgia	1973-1974
AFIT Student, Emory University School of Medicine, Atlanta, Georgia	1974-1978
AFIT Student, University of Texas Health Science Center at San Antonio, Department of Family Practice	1978-1981
AFIT Student, University of Texas School of Public Health at Houston, San Antonio Branch	1981-1982
Resident in Aerospace Medicine, USAF School of Aerospace Medicine, Brooks AFB, Texas	1982-1983
Chief, Aeromedical Services and Commander, 354 <sup>th</sup> Tactical Hospital (Air Transportable), Myrtle Beach AFB, South Carolina	1983-1985
Commander, USAF Hospital Myrtle Beach, Myrtle Beach AFB, South Carolina	1985-1986
Commander, 833d Medical Group and Commander, 833d Tactical Hospital (Air Transportable), Holloman AFB, New Mexico	1986-1988
Chief, Flight Medicine, Office of the Air Force Surgeon General, Bolling AFB, Washington, D.C.	1988-1991
Command Surgeon, Office of Air Force Reserve Pentagon, Washington, D.C.	1991-1994

## **HONORS AND AWARDS**

Forrest M. and Pamela Bird Award for Contributions to Aviation Safety	2020
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Arnall Patz, MD Lifetime Achievement Award Emory University School of Medicine	2018
National Aeronautics and Space Administration Group Achievement Award to Spacecraft Crew Survival Integrated Investigation Team for outstanding Completion of the Columbia Crew Survival Investigative Report	2009
Flying Training Award, Class 66B, Undergraduate Pilot Training, Williams AFB, Texas	1965
Flight Captain, Order of Daedalians (Flight 77), Myrtle Beach AFB, South Carolina	1985
Chief Resident in Family Practice, University of Texas Health Science Center at San Antonio	1977-1978
Academic Award, F-105 Combat Crew Training, Nellis AFB, Nevada	1966
Top Gun Award, Class 83 GBD, A-10 Upgrade Training Davis-Monthan AFB, Arizona	1983
Top Graduate Award, Class 83 GBD, A-10 Upgrade Training Davis-Monthan AFB, Arizona	1983
Julian E. Ward Memorial Award, Aerospace Medical Assoc. Fellow, Aerospace Medical Association	1986 1988-Present
George E. Schafer Award, Society of Air Force Flight Surgeons	1994
Silver Star with 2 Oak Leaf Clusters	
Legion of Merit with 1 Oak Leaf Cluster	
Distinguished Flying Cross	
Bronze Star with "V" device and 2 Oak Leaf Clusters	
Purple Heart with 1 Oak Leaf Cluster	
Meritorious Service Medal with 2 Oak Leaf Clusters	
Air Medal with 4 Oak Leaf Clusters	
Air Force Commendation Medal	
Air Force Achievement Medal	
Presidential Unit Citation	
Distinguished Unit Citation	
Prisoner of War Medal	
Vietnam Cross of Gallantry	
Vietnam Service Medal with 15 Campaign Stars	

## **PUBLICATIONS**

Germane AG, Freund MA, Gwin LP, McNish TM, Scott WR, Day CM and Bain CE. Technology in the courtroom. Curran J and Meaders K, eds. IN: *Expert witnesses: Motor Vehicle and Accident Reconstruction Cases, 2016-2017 Edition*. Thomson Reuters; 2016; pp. 1073-1094.

Banks RD; Martini JJ; Smith HL; Bowles AP; McNish TM; and Howard R. Alignment of the Lumbar Vertebrae in a Driving Posture. J. Crash Prevention and Injury Control, August 2000, Vol. 2(2), pp. 123-130.

Author and Presenter of Tactical Air Command Briefing on G-induced Loss of Consciousness in Non-High Sustained “G” Capable Aircraft, 1985-1986.

Thesis: “Long-term Effects of Exposure to High Sustained G-Forces in United States Air Force Pilots: Current Status and Future Perspectives,” MPH Thesis, approved June 1982.

“Sequence of Cardiac Changes in Duchenne Muscular Dystrophy,” American Heart Journal, March 1978.

“Cardiac Changes in Duchenne Muscular Dystrophy,” Presented at Southern Section Meetings of American Federation of Clinical Research, New Orleans, LA, January 1976.

## **TEXTBOOKS**

Aviation's Impact on the Environment, (contributing author), Chapter 33 in Fundamentals of Aerospace Medicine, Roy L. DeHart, ed., Lea & Febiger, 1985.

## **PRESENTATIONS AND INVITED LECTURES**

“Long Term Effects of Exposure to High-Sustained G-Forces” Annual Scientific Meeting, Aerospace Medical Association, April 1986.

Panel Member “Aircraft Specific Medical Problems,” Annual Scientific Meeting, Aerospace Medicine Association, April 1986.

“Spatial Disorientation Training,” Physiological Training Center, Holloman AFB, New Mexico, 1986-1988.

James Weaver Lecturer, Alliance of Air National Guard Surgeons Convention, 1987.

“Status of USAF Aerospace Medicine,” Annual Scientific Meeting, Association of Military Surgeons of the United States, November 1989.

Member, Expert Panel on “Safety Network to Detect Performance Degradation and Pilot Incapacitation,” Advisory Group for Aerospace Research and Development (AGARD), Aerospace Medicine Symposium, Tours, France, April 1990.

Panel Coordinator, “Current Aeromedical Problems in Operational Aircraft,” Annual Scientific Meeting, Aerospace Medicine Association, May 1990, 1991, 1992, 1993.

“Use of Contact Lenses by Aircrew in the USAF,” Presented at AGARD Aerospace Medicine Panel, Fall 1990 Symposium, London, Published in Conference Proceedings.

“Contact Lens Use by USAF Aircrew, a Progress Report,” Presented at Air Standardization Coordination Committee Working Party 61 Symposium, November 1990, Toronto, Canada.

“McNish TM. "Understanding 'Whiplash': Analysis of Low Speed Rear-Impact Testing Using Human Test Subjects." Presentation to Society of Automotive Engineers, Inc., Low Speed Collision TOPTEC, Richmond, BC, Canada, August 1996.

“Injury Reconstruction as a Component of Injury Causation Analysis,” Presented at The University of Texas - Medical Branch at Galveston, Grand Rounds, Continuing Medical Education, August, 2001.

“Statistics of Amusement ride Deaths & Injuries: Why We Are Here.” 74<sup>th</sup> Annual Scientific Meeting, Aerospace Medical Association, May, 2003.

“Closed Head Injury Potential Related to Inertial Forces on Amusement Rides.” 74<sup>th</sup> Annual Scientific Meeting, Aerospace Medical Association, May, 2003.

Aviation Safety. Key Note Address: 2021 Civil Aviation Medical Association Annual Meeting; Brooks City Base; San Antonio, Texas, September 2021.