

# **PIONEERS** of National Reconnaissance

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SUPRA ET ULTRA

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## FOREWORD

January 2019

### The National Reconnaissance Pioneer Program recognizes and honors

individuals who have made significant and lasting contributions to national reconnaissance—pioneering contributions that were innovative, remarkable, and changed the direction and scope of the discipline and its practice. It is the highest honor in the field of national reconnaissance.

For the Pioneer Class of 2017, the Director of National Reconnaissance, Ms. Betty Sapp, selected Mr. Timothy J. Barnes, whose pioneering innovations related to geolocation bias-correction methods have had a profound and lasting effect on NRO's national and tactical missions. Mr. Barnes' contributions in the late 1990s improved precision geolocation performance by an order of magnitude, and remain foundational to NRO geolocation systems today.

The January 2019 Pioneer Recognition Ceremony formally inducts Mr. Barnes, the NRO's 2017 Pioneer honoree, into NRO's Pioneer Hall. Pioneer Hall is a collection of commemorative medallions, one for each of NRO's Pioneers of National Reconnaissance. The medallions serve as enduring tributes to the pioneers' trailblazing contributions to the discipline of national reconnaissance. This booklet includes the words that appear on Mr. Barnes' medallion and briefly explains the nature of Pioneer Barnes' specific contribution. Mr. Barnes' medallion now joins the other 92 medallions that commemorate the contributions of Pioneers from previous classes. When you visit Pioneer Hall, I encourage you to review the citations on the medallions to gain a sense of the scope of the Pioneers' contributions and the lasting impact they had on the NRO and our nation's national security.

Robert A. McDonald, PhD. Director, Center for the Study of National Reconnaissance

## MR. TIMOTHY J. BARNES

## MEDALLION CITATION

In the late 1990's Mr. Timothy J. Barnes pioneered geolocation bias-correction methods of profound and lasting effect on NRO's national and tactical missions. These groundbreaking, technical advancements improved precision geolocation performance by an order of magnitude and remain foundational to NRO geolocation systems today.

Period of Pioneering Contribution: 1994–1996

### TIMOTHY J. BARNES

In the late 1990's Mr. Barnes pioneered geolocation bias-correction methods and their implementation. During the Pioneer Recognition Ceremony for his induction into the NRO's Pioneer Hall, his family was presented with a commemorative plaque citation, which states:

"In the late 1990's Mr. Timothy J. Barnes pioneered geolocation bias-correction methods of profound and lasting effect on NRO's national and tactical missions. These groundbreaking, technical advancements improved precision geolocation performance by an order of magnitude and remain foundational to NRO geolocation systems today."

Mr. Barnes was associated with the NRO from 1983 until 2017 (32+ years of service) in three capacities. First, Mr. Barnes provided systems engineering and technical assistance for The Analytical Sciences Corporation (TASC). He was later employed by Zeta Associates as a subject matter expert and geolocation applications developer. In this role he advanced the state-of-the-art of overhead geolocation technology. Finally, he served as Program Manager for the MIDAS Studies Program, which grew to a contingent of 200 engineers and analysts. Mr. Barnes was born in Washington, D.C. He received a BS in aerospace engineering and an ME in systems engineering from the University of Virginia, and an MS in aerospace engineering from Johns Hopkins University. Mr. Barnes passed away on 16 February 2017.

#### Career in National Reconnaissance: 1983–2017

PIONEER RECOGNITION PROGRAM

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### PIONEERS OF NATIONAL RECONNAISSANCE

2006

2017 Timothy J. Barnes 2016 Thomas R. Reinehr

#### 2015 L. Porter Davis

2014 Thomas C. "Chris" Fitzsimmons John. R Stavlo

#### 2013 William G. Montgomery

Donald N. Simkins, Ph.D.

2012 Robert P. O'Donnell, Ph.D. 2011 Thomas A. Brackey Joseph J. Eash III, Col, USAF (Ret) Michael N. Parker, Ph.D. John W. Shipley, Ph.D. Richard C. Van Wagoner

### 2010

Robert H. Dumais Jack A. Gibbs, Brig Gen, USAF (Ret) Richard J. Randazzo, Col, USAF (Ret)

#### 2009

James P. Campbell, Ph.D. Lacy G. Cook Michael F. Maguire

#### 2008

Raymond E. Anderson, Col, USAF (Ret) Howard G. Brotherton Hilliard W. Paige, Sr.

#### 2007 Paul G. Kaminski Sun Yet Wong

Ingard M. Clausen Fred V. Hellrich David L. Klinger, Ph.D. Jane A. Wood 2005 Robert E. Eisenhauer Bargar C. March

Roger C. Marsh Edward A. Miller, Ph.D. Wayne L. Proffitt

#### 2004

M. Sam Araki Harvey Cohen, Lt Col, USAF (Ret) Robert G. Kaemmerer James W. McAnally

#### 2003

Carl L. Ferdensi, Jr. David Raspet, Col, USAF (Ret) James W. Stoner, Ph.D. Charles C. Tevis

#### 2002

Vance D. Coffman, Ph.D. Lee M. Hammarstrom Robert L. Paulson, Col, USAF (Ret)

#### 2001

Donald L. Cromer, Lt Gen, USAF (Ret) A.J. (Tony) Iorillo Vincent S. Rose John Walton

#### 2000

James G. Baker, Ph.D. C. Lee Battle, Jr., Col, USAF (Ret) John T. Bennett John W. Browning, Col, USAF (Ret) Jon H. Bryson, Col, USAF (Ret) A. Roy Burks Frank S. Buzard, Col, USAF (Ret) Cornelius W. "Connie" Chambers

John O. Copley, Col, USAF (Ret) Robert H. Crotser John J. Crowley lames C. de Broekert Gary S. Geyer, Col, USAF (Ret) Thomas O. Haig, Col, USAF (Ret) Frederick H. Kaufman Robert I. Kohler Ellis E. Lapin Llovd K. Lauderdale, Ph.D. Richard S. Leghorn, Col, USAF (Ret) Walter I. Levison Howard O. Lorenzen Frank I. Madden James T. Mannen, Col, USAF (Ret) Paul W. Mayhew, Ph.D. Reid D. Mavo James E. Morgan Mark N. Morton Alden V. Munson, Ir. Charles L. Murphy, Col, USAF (Ret) Frederic C.E. "Fritz" Oder, Col, USAF (Ret) John Parangosky Julius P. "Val" Peline, Ph.D. Robert M. Powell Edward H. Reese Osmond J. "Ozzie" Ritland, Major General, USAF (Ret) Lee W. Roberts, Col, USAF (Ret) Charles R. "Charlie" Roth Robert W. "Rob" Roy, Col, USAF (Ret) Charles P. Spoelhof Forrest H. Stieg Marvin S. Stone, Ph.D. Don F. Tang Albert D. "Bud" Wheelon, Ph.D.

Peter G. Wilhelm

Roy H. Worthington, Col, USAF (Ret)

Robert W. Yundt, Col, USAF (Ret)

Pioneer Hall National Reconnaissance Office Chantilly, Virginia





