



# PIONEERS OF NATIONAL RECONNAISSANCE

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*The* National Reconnaissance Pioneer Program recognizes and honors individuals who have made significant and lasting contributions to national reconnaissance—pioneering contributions that were innovative and have changed the direction and scope of the discipline and its practice. It is the highest honor in the field of national reconnaissance.

This year, the Director of National Reconnaissance, Ms. Betty Sapp, selected Mr. Chris Fitzsimmons and Mr. John Stavlo, whose innovations in lightweight optical and structural design and precision pointing and tracking control, respectively, represent major breakthroughs that dramatically improved the ability of the NRO to collect vital intelligence from space. Their separate, but complementary accomplishments are models for how to use imagination to overcome technical challenges. It also is a metaphor for how the National Reconnaissance Office (NRO), over the past fifty three years, has been able to focus U.S. space intelligence assets more precisely on the country's most critical national security targets. This year's Pioneers, like those inducted in previous classes, have employed creative techniques and processes to accomplish the NRO's essential mission.

This booklet summarizes the specific contributions of Pioneers Fitzsimmons and Stavlo. In Pioneer Hall you will find their medallions, which serve as permanent acknowledgement of their enduring contributions to the discipline of national reconnaissance. These two new medallions join the other 89 that commemorate those Pioneers we recognized in previous years. When you visit Pioneer Hall, I encourage you to read about Mr. Fitzsimmons and Mr. Stavlo and the other Pioneers to learn how their contributions have made a lasting impact on the NRO and the nation's security.



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

NATIONAL RECONNAISSANCE PIONEERS  
2014





MR. THOMAS C. "CHRIS"  
FITZSIMMONS

Mr. Thomas C. “Chris” Fitzsimmons pioneered the development, production, and test of lightweight optical and structural components that eliminated a significant amount of weight from the large aperture, heavy optical subsystem used in the Nation’s electro-optical imagery reconnaissance satellites, with no reduction in image quality. The technological breakthroughs and processes he pioneered are the key enablers of our currently flying high-resolution EO collection capabilities and remain in practice today.

Career in National Reconnaissance: 1966 - 1998



MR. JOHN R. STAVLO



Mr. John R. Stavlo pioneered the design and implementation of a first-of-a-kind precision pointing and tracking control system. To overcome the challenge of extending conventional attitude control concepts and development tools, he devised an innovative solution involving simulations with high-fidelity dynamic models and test beds with engineering model hardware operating in a closed loop mode. Mr. Stavlo's design and techniques represent a quantum leap in SIGINT collection sensitivity.

Career in National Reconnaissance: 1978 - 2007



THE PIONEERS  
OF  
NATIONAL RECONNAISSANCE

## 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

## 2006

Ingard M. Clausen  
Fred V. Hellrich  
David L. Klinger, Ph.D.

Jane A. Wood

## 2005

Robert E. Eisenhower

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. Ferdenski, 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

James C. de Broekert

Gary S. Geyer, Col, USAF (Ret)

Thomas O. Haig, Col, USAF (Ret)

Frederick H. Kaufman

Robert J. Kohler

Ellis E. Lapin

Lloyd K. Lauderdale, Ph.D.

Richard S. Leghorn, Col, USAF (Ret)

Walter J. Levison

Howard O. Lorenzen

Frank J. Madden

James T. Mannen, Col, USAF (Ret)

Paul W. Mayhew, Ph.D.

Reid D. Mayo

James E. Morgan

Mark N. Morton

Alden V. Munson, Jr.

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)

## NROL-39

“The NROL-39 was the second of two National Reconnaissance (NRO) launches in 2013. The photograph shows the United Launch Alliance Atlas V rocket lifting off from Space Launch Complex-3E, Vandenberg Air Force Base, California. In addition to the main, classified, NRO payload, the rocket carried into orbit the Government Experimental Multi-Satellite (GEMSat) rideshare payload on a specially designed Aft Bulkhead Carrier, located on the aft section of the Atlas V Centaur upper stage. The GEMSat deployed 12 experimental CubeSats, or “nano-satellites,” seven sponsored by the NRO and five sponsored by the National Aeronautics and Space Administration.”



*National Reconnaissance Office  
NRO Launch, NROL-39,  
11:14 PST, 5 December 2013*

*Pioneer Hall  
National Reconnaissance Office  
Chantilly, Virginia*





