



PIONEERS OF NATIONAL RECONNAISSANCE

ROD J. DALLAIRE
& MICHAEL G. PRICE, PH.D.

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PIONEERS OF NATIONAL RECONNAISSANCE

SUPRA ET ULTRA

FOREWORD

June 2021

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.

The Director of National Reconnaissance, Dr. Christopher Scolese, selected Mr. Rod Dallaire and Dr. Michael Price, whose pioneering innovations have had a profound and lasting effect on NRO's national and tactical missions.

The June 2021 Pioneer Recognition Ceremony formally inducts Mr. Dallaire and Dr. Price, the NRO's Pioneer honorees, into the Pioneer Hall. NRO's 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. Dallaire's and Dr. Price's medallions and briefly explains the nature of Pioneers specific contribution. Mr. Dallaire's and Dr. Price's medallions now join the other 95 medallions that commemorate the contributions of Pioneers over the years. When you visit the 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.

Dr. James Outzen

Director, Center for the Study of National Reconnaissance



ROD J. DALLAIRE
MEDALLION CITATION

Mr. Rod J. Dallaire pioneered radar payload designs, discovered hardware failures that saved satellites, and invented numerous ground processing techniques that significantly improved image quality. Additionally, he led technology improvement programs that transitioned cutting-edge software and hardware to system program offices for integration into on-orbit satellite flight programs.

Period of Pioneering Contribution: 1973

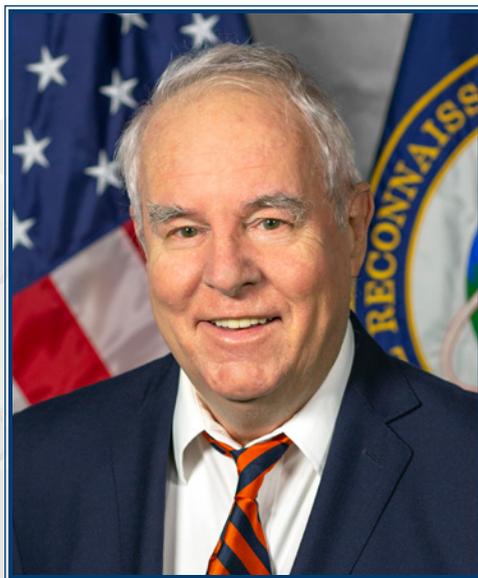
ROD J. DALLAIRE

Mr. Dallaire's pioneering contribution, which began in the 1970s, enabled the success of today's NRO radar imagery satellite collection. During the Pioneer Recognition Ceremony for Mr. Dallaire's induction into the NRO's Pioneer Hall, he will be presented with a commemorative plaque citation, which states:

Since the 1970s Mr. Rod J. Dallaire has pioneered the technologies that enabled current high quality Synthetic Aperture Radar (SAR). He pioneered radar payload designs and discovered hardware failures that saved satellites. Mr. Dallaire developed a Gold Standard algorithm and invented numerous ground processing techniques that significantly improved image quality. Additionally, he led technology improvement programs that transitioned cutting-edge software and hardware to system program offices for integration into on-orbit satellite flight programs. Mr. Dallaire holds patents on several advanced processing techniques, most notably as co-inventor of technology used on processed SAR imagery.

Mr. Dallaire currently serves as a Senior Systems Engineer and Radar Subject Matter Expert in GEOINT/R&T at IAI. He began his career as a Technician at Burroughs Corporation, where he designed the company's first modem. He joined Bendix Aerospace in 1970 as an Engineer where he worked on reliability assessment, parts failure and worse case analysis, and designed a portion of the Apollo Lunar Surface Experiment Package central station and designed the digital signals processing for the Mars Viking Seismometer. From 1973 – 2005, Mr. Dallaire worked as a Systems Engineer for Veridian and General Dynamics AIS (formerly Environmental Research Institute of Michigan). In 2005 he joined SRS as a Senior Systems Engineer working on the Space Radar Program, where he worked until 2010.

Career in National Reconnaissance: 1973 – Present



MICHAEL G. PRICE, PH.D.
MEDALLION CITATION

Dr. Michael Price pioneered targeting-level geolocation accuracy for near-real-time Time Difference of Arrival (TDOA)-based ELINT processors using combined data from NRO spacecraft. His work on bias estimation and removal has improved many of the NRO's overhead SIGINT systems in operations today.

Period of Pioneering Contribution: 2000

MICHAEL G. PRICE, PH.D.

Dr. Price's pioneering contribution, which began in the first decade of the 21st century, has improved many of the NRO's overhead SIGINT systems in operations today. During the Pioneer Recognition Ceremony for Dr. Price's induction into the NRO's Pioneer Hall, he will be presented with a commemorative plaque citation, which states:

Dr. Price pioneered technologies that enabled targeting-level geolocation accuracy for an NRO satellite. He was a pioneer in the thought-leadership, advocacy, Concept of Operations (CONOP) development, design, implementation, and execution of this critical national reconnaissance activity. Dr. Price realized that no one contractor, company, or NRO organization could successfully deploy such a capability. He enlisted the help of the geolocation community through NRO/NSA Geolocation Conferences, which enabled the necessary critical communication and idea-sharing between subject matter experts. He published memoranda on bias-correction, optimal estimation, algorithms, and CONOPs for improved geolocation. His work on bias estimation and removal has improved many of the NRO's overhead SIGINT systems in operations today.

Dr. Price his began his career in 1986 working in Research and Development (R&D) as a Systems Engineering and Technical Assistance Officer (SETA) in NRO's Program C (Navy) and has continued to work in NRO R&D throughout his career. He organized the first and subsequent NRO/NSA Geolocation Conferences, beginning in 1995. Dr. Price is the author of over 170 technical memoranda and one book, dealing with geolocation and related topics.

Career in National Reconnaissance: 1986 – Present

PIONEERS OF NATIONAL RECONNAISSANCE

2020

Rod J. Dallaire
Michael G. Price, Ph.D.

2019

Carol A. Staubach

2018

Edward C. Mahen, Jr.

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

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. 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
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)

Pioneer Hall

National Reconnaissance Office

Chantilly, Virginia





