



## The Honorable Heidi Shyu

### Experience

#### HON Heidi Shyu, LLC

**2025 – present, President & CEO**, Aerospace & Defense consulting

**Arete**, Member of the Board, 2025 - present

**General Atomics Technologies Corporation**, Advisory Board, 2025 - present

**Zivc**, Advisory Board, 2025 - present

**Pheratech Systems Inc.**, Advisory Board, 2025 - present

**Linse Capital**, Advisor, 2025 – present

**Xanadu Quantum Technologies**, 2026 - present

#### United States Department of Defense:

##### **2021 – 2025 Under Secretary of the Defense for Research & Engineering**

Served as the Chief Technology Officer for the Department of Defense (DoD), mandated with ensuring the technological superiority of the U.S. military, and is responsible for the research, development, and prototyping activities across the DoD enterprise. She also oversees the activities of the Defense Advanced Research Projects Agency (DARPA), the Missile Defense Agency (MDA), the DoD Laboratory and Engineering Center enterprise, and the Under Secretariat staff focused on developing advanced technology and capability for the U.S. Military.

#### Heidi Shyu Inc.

**2016 – 2021 President & CEO**, an Aerospace & Defense consulting company

**Aerospace Corporation, Member of the Board of Trustees** with revenues of \$900M. Audit Committee, Technology Committee and Technical Investment Committee 2016 - 2021

**Auterion Government Solutions, Member of the Board** 2020 - 2021. Auterion provides innovative small-UAS solutions for the DoD.

**Catalyze Dallas, Member of the Board of Advisors** 2020 - 2021. Catalyze Dallas creates scalable businesses to launch IP and products sourced from global defense companies into broad markets.

**Levitate Capital, Member of the Board of Advisors** 2020 - 2021. Levitate Capital is a venture firm focused on advanced air mobility.

**Linse Capital Fund, Member of the Board of Advisors** 2021. Linse Capital is a venture capital firm focused on mature advanced air mobility, space, and energy technologies.

**Plasan North America, Chairman of the Board**, 2020 - 2021. Plasan provides innovative armor solutions for vehicles.

**VK Integrated Systems, Member of the Board**, 2018 - 2021. VK Integrated Systems is a privately held start-up company that designs advanced integrated soldier weapon systems.

**UCLA Engineering Dean's Executive Board, Member**, 2018 - 2021. Provided strategic guidance to UCLA Dean of Engineering & Applied Science.

**U.S. Chamber of Commerce Defense & Aerospace Export Council, Member, 2018 - 2021.** DAEC focuses on increasing the competitiveness of the U.S. Aerospace & Defense exports.  
**Carnegie Mellon University Software Engineering Institute, Technical Advisory Group.** 2016 - 2021. Conducted annual review of the SEI research portfolio of software assurance, cyber defense and provide recommendations to the Department of Defense.

**United States Army:**

**2012 – 2016 Assistant Secretary of the Army for Acquisition, Logistics & Technology**

Served as the Army Acquisition Executive, the Senior Procurement Executive, the Science Advisor to the Secretary of the Army, and the Army's Senior Research and Development official. Had principal responsibility for Department of the Army matters related to logistics. Led the execution of the Army's acquisition function and the acquisition management system. Provided oversight for the life cycle management and sustainment of Army weapon systems and equipment from research and development through test and evaluation, acquisition, logistics fielding and disposition. Responsible for managing the 37,000 Army Acquisition Corps and the Army Acquisition Workforce. Responsible for \$23B annual Research, Development & Acquisition budget.

**2011 – 2012 Acting Assistant Secretary of the Army for Acquisition, Logistics & Technology**

Served as the Army Acquisition Executive, the Senior Procurement Executive, the Science Advisor to the Secretary of the Army, and the Army's Senior Research and Development official.

**2010 – 2011 Principal Deputy Assistant Secretary of the Army for Acquisition, Logistics & Technology**

Initiated Program Status Reviews across twelve Program Executive Offices to enhance visibility across the Army weapon system portfolios and standardized performance metrics. Initiated Contracting Enterprise Reviews across the Army and established metrics to measure performance. Implemented Department of the Defense Better Buying Power initiatives. Lead technical deep-dives on troubled programs and formulated recovery plans.

**Raytheon:**

**2009 – 2010 Vice President of Technology Strategy, Space & Airborne Systems**

Provide technical oversight & strategic guidance to Raytheon Space & Airborne Systems (SAS) technology strategy. SAS is a \$4.5B defense business.

**2007 - 2009 Corporate Vice President of Technology & Research, Raytheon Co.**

Chief Technology Officer for Raytheon Company: Led corporate-wide Technology Council; Established metrics for innovation and increased number of patents disclosures by 54% in 2 years; Managed Innovation IDEA funding; Corporate-wide Technology Initiatives and Technology Forums.

**2004 - 2007 Vice President & Technical Director, Space & Airborne Systems**

Review & provide guidance on technologies under research & development

**2002 - 2003 Vice President of Unmanned & Reconnaissance Systems, Space & Airborne Systems**

Led rapidly growing business in Unmanned & Reconnaissance Systems. Portfolio included Global Hawk Unmanned Airborne Vehicle radar and Electro-Optical/Infrared sensors, Air Force Unmanned Combat Airborne Vehicle (UCAV) sensors, U-2, plus Defense Advanced Research Projects Agency (DARPA) programs.

**2001 Director, Joint Strike Fighter (JSF), Space & Airborne Systems**

Led all the sensor development activities on Boeing's Joint Strike Fighter team: active array radar, Electronic Warfare (EW), distributed Infrared system, and integrated core processor. Member of Boeing's JSF Executive Council.

**1999 – 2001 Director, Joint Strike Fighter Integrated Radar/Electronic Warfare, Space & Airborne Systems**

Led the development of integrated radar/Electronic Warfare system and flight test demonstrations on Boeing's JSF team

**1997 – 1999 Director, JSF Antenna Technologies, Space & Airborne Systems**

Led the revolutionary light-weight, low-cost Tile Active Array radar technology development and flight test demonstration in record time while far-exceeding all requirements. Dramatically improved low observability. The technology transitioned into F/A-18 Active Electronically Scanned Array (AESA).

**Hughes Aircraft Company:**

**1995 – 1997 Laboratory Manager, Electromagnetic Systems**

Responsible for airborne, space and ground-based antenna development. Managed 90+ person organization, including design and test engineering, lab facilities, and Radar Cross Section ranges. Products spanned numerous military and commercial applications. Developed 5-year technology roadmaps for all the antenna products. Reduced overhead rate for the organization.

**1992 – 1995 Project Manager**

Led the Defense Advanced Research Projects Agency (DARPA) & Air Force Research Lab (AFRL) technology programs on Low-Cost Radar, Advanced Low-Cost Architecture Radar. Managed Research & Development project on innovative active array technologies.

**Litton:**

**1990 – 1991 Senior Staff Engineer**

Project manager of portable octane analyzer development team

**Grumman:**

### **1989 – 1990 Principal Engineer**

Led the Joint Surveillance Target Attack Radar System (JSTARS) Self Defense Study in assessing candidate self-defense suites to protect JSTARS aircraft from Radio Frequency (RF) and Electro-Optical/Infrared (EO/IR) Surface-to-Air missiles and Air-to-Air missiles.

### **Hughes Aircraft Company:**

#### **1978 – 1989 various Engineering positions**

Developed F-15 and F/A-18 Electronic Counter-Counter Measures (ECCM) algorithms to detect, identify, and counter different types of RF jammers. Simulated F-14, F-15, F/A-18 air-to-air radar modes and missile messages.

## **Boards**

**2016 – 2021, Aerospace Corporation**, Member of the Board of Trustees

**2020 – 2021, Auterion Government Solutions**, Member of the Board

**2020 – 2021, Catalyze Dallas**, Member of the Board of Advisors

**2018 – 2019, Concurrent Technologies Corporation**, Member of the Board

**2020 – 2021, Levitate Capital**, Member of the Board of Advisors

**2021, Linse Capital**, Member of the Board of Advisors

**2019 – 2021, Plasan North America**, Chairman of the Board

**2017 – 2020, Roboteam North America**, Chairman of the Board

**2018 – 2021, VK Integrated System**, Member of the Board

**2018 – 2021, UCLA Dean of Engineering Executive Board**, Member

**2018 – 2021, U.S. Chamber of Commerce Defense & Aerospace Export Council**, Member of Advisory Board

**2018 Power Finger Printing**, Advisory Board

**2016 – 2017, Carnegie Mellon University Advanced Robotics Manufacturing Institute**, Member of the Board

**2016 – 2017, National Academies of Sciences Intelligence Community Studies Board**, Member of the Board

**2016 – 2017, Roboteam North America**, Advisory Board

**2008 – 2010, Air Force Scientific Advisory Board**, Member

Co-chaired study on Next-Generation Electronic Warfare in 2010

Vice Chair of AFRL Information Directorate Science & Technology (S&T) Review in 2009

Panel Member on AFRL S&T Review: Munitions Directorate, Special Programs.

**2005 – 2008, Air Force Scientific Advisory Board (AFSAB)**, Chair

Responsible for leading 50 AFSAB members on studies for the Secretary of the Air Force and Chief of Staff of the Air Force plus conduct annual Air Force Research Lab (AFRL) S&T Quality reviews

Led classified study on Theater Ballistic Missiles in 2008

Led Senior Review Group on all AFSAB studies (3 to 5 studies conducted per year)

Participated in AFRL S&T Reviews across 9 different Directorate: Sensors, Munitions,

Directed Energy, Information, Air Vehicles, Space Vehicles, Human Effectiveness, Materials,

Air Force Office of Scientific Research.

**2005 – 2008, Defense Science Board**, Ex Officio

**2003 – 2005, Air Force Scientific Advisory Board, Vice Chair**

Assisted in managing & leading 50 AFSAB members and 2 Senior Mentors on studies for the Secretary of the Air Force and Chief of Staff of the Air Force and conduct annual S&T Quality reviews on Air Force Research Lab (AFRL)

**2000 – 2003, Air Force Scientific Advisory Board, Member**

Led AFRL Sensors Directorate S&T review panel in 2002  
Panel member on Munitions Directorate S&T review  
Member on 3 different studies

**Education**

Honorary Doctor of Science, University of New Brunswick, Canada, 2017  
Engineer Degree, University of California Los Angeles, 1982  
MS Systems Science (part of EE), University of California Los Angeles, 1981  
M.S., Mathematics, University of Toronto, Canada 1977  
B.S., Mathematics, University of New Brunswick, Canada 1976  
Business Leadership, University of Chicago, 2002  
Executive Management, University of California Los Angeles, 1987

**Security Clearances**

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**Awards & Honors**

Department of Defense Medal for Distinguished Public Service, 2025  
Australian Secretary & Chief of the Defence Force Commendation, 2024  
Asian American Engineer of the Year (AAEOY) Lifetime Achievement Award, 2024  
Washington Exec Chief Technology Officer of the Year Award, 2023  
AIAA Honorary Fellow, 2021  
National Academy of Engineering, 2019  
AIAA Fellow, 2017  
Department of Defense Medal for Distinguished Public Service, 2016  
Department of the Army Medal for Distinguished Civilian Service, 2016  
General Brehon B. Somerville Medal of Excellence, 2016  
Military Intelligence Corp., Knowlton Award, 2016  
National Infantry Assoc. Order of Saint Maurice, 2016  
Army Aviation Association, The Knight of the Honorable Order of Saint Michael, 2015  
UCLA Engineering Alumni Professional Achievement Award, 2014  
Department of the Air Force Decoration for Exceptional Civilian Service, 2010

Raytheon Hero Award, 2001

Raytheon Corporate Excellence in Technology Award, 2000

Hughes Aircraft Co. Superior Performance Award: 1986, 1987, 1988

N. Myles Brown Science Award 1973

### **Scholarships**

Hughes Fellowship 1978 – 1982

University of Toronto Fellowship 1976 – 1977

New Brunswick Post-Graduate Scholarship 1976 – 1977

University Special Undergraduate Scholarship 1974 – 1976

Atlantic Provinces Inter-University Committee Scholarship 1974

### **Professional Membership**

Member, National Academy of Engineering - 2019

Honorary Fellow, American Institute of Aeronautics & Astronautics (AIAA) - 2021

Member, Association of U.S. Army (AUSA)