ADVANCED MANUFACTURING PARTNERSHIP FOR SOUTHERN CALIFORNIA

BI-ANNUAL MEETING PROGRAM

ADVANCING TODAY'S SUPPLY CHAIN FOR TOMORROW'S OPPORTUNITIES

SEPTEMBER 20, 2018 • USC TUTOR CENTER • LOS ANGELES, CA

Supporting Southern California's aerospace & defense manufacturers.
Find out more at AMPSoCal.org

Image credit: Virgin Orbit
More than a place to live, a community is a center of life where people come together to support one another. Northrop Grumman is proud to support the Fall 2018 Advanced Manufacturing Partnership of Southern California (AMP SoCal) Bi-Annual Meeting.

THE VALUE OF PERFORMANCE.

NORTHROP GRUMMAN

www.northropgrumman.com

Southern California’s Fast Track Hub

★ Lowest Cost Per Square Foot in Region
★ Fast Track Permitting
★ Infrastructure Support
★ Central Location

951.656.7000
www.marchjpa.com/foreigntradezone

Los Angeles Department of Water & Power

The Los Angeles Department of Water and Power is proud to support the AMP SoCal BI-ANNUAL MEETING

LADWP rebates and programs help our customers use energy and water more efficiently, reduce utility bills and protect the environment.

myLADWP.com
THE CITY OF
Perris, California

- Business Friendly
- Affordable Land and/or Industrial Buildings
- Workforce Incentives and Programs
- Access to Major Transportation Corridors
- Commercial Airport
- Local and Regional Incentives

Contact the Perris Community Economic Development Corporation at:
135 North D Street, Perris, CA 92570 • (951) 943-6100
www.cityofperris.org/cedc/

BE THE BEST.
OWN THE BEST.

WWW.CMSNA.COM
1-800-225-5267

Sponsorship levels listed on page 12
<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
</tr>
</thead>
<tbody>
<tr>
<td>8:00 AM</td>
<td><strong>Registration and Continental Breakfast</strong></td>
</tr>
<tr>
<td>9:00 AM</td>
<td><strong>Opening Remarks and Overview</strong></td>
</tr>
<tr>
<td></td>
<td>Libby Williams, USC Center for Economic Development - AMP SoCal</td>
</tr>
<tr>
<td>9:15 AM</td>
<td><strong>Bi-Annual Meeting Welcome Presentations</strong></td>
</tr>
<tr>
<td></td>
<td>Jack H. Knott, Ph.D., Dean, USC Sol Price School of Public Policy</td>
</tr>
<tr>
<td></td>
<td>Deepak Bahl, USC Sol Price School of Public Policy - USC Center</td>
</tr>
<tr>
<td></td>
<td>for Economic Development</td>
</tr>
<tr>
<td>9:30 AM</td>
<td><strong>Keynote Address</strong></td>
</tr>
<tr>
<td></td>
<td>Arnie Streland, Northrop Grumman</td>
</tr>
<tr>
<td>10:00 AM</td>
<td><strong>Panel 1: Opportunities Related to Drones, Space, and Cybersecurity</strong></td>
</tr>
<tr>
<td></td>
<td>Moderator: David Barnhart, USC Space Technology and Systems Group</td>
</tr>
<tr>
<td></td>
<td>Andrew Duggleby, Ph.D., Virgin Orbit</td>
</tr>
<tr>
<td></td>
<td>Clifford Neuman, Ph.D., USC Center for Computer Systems Security</td>
</tr>
<tr>
<td></td>
<td>Kent Nerhus, K2 Unmanned Systems</td>
</tr>
<tr>
<td>11:15 AM</td>
<td><strong>Break</strong></td>
</tr>
<tr>
<td>11:30 AM</td>
<td><strong>The Case for Adopting Additive Manufacturing and New Manufacturing Technology</strong></td>
</tr>
<tr>
<td></td>
<td>Moderator: Chris Wentworth, CMTC</td>
</tr>
<tr>
<td></td>
<td>William Haas, The Boeing Company</td>
</tr>
<tr>
<td>12:00 PM</td>
<td><strong>Networking Lunch</strong></td>
</tr>
<tr>
<td>1:00 PM</td>
<td><strong>Panel 2: Preparing the Next Workforce</strong></td>
</tr>
<tr>
<td></td>
<td>Moderator: Julianna Kirby, Training Funding Partners</td>
</tr>
<tr>
<td></td>
<td>David Fisher, S&amp;H Machine</td>
</tr>
<tr>
<td></td>
<td>Linda Kurokawa, MiraCosta College</td>
</tr>
<tr>
<td></td>
<td>Joel Morgan, Goodwill Southern California</td>
</tr>
<tr>
<td>2:15 PM</td>
<td><strong>Break</strong></td>
</tr>
<tr>
<td>2:30 PM</td>
<td><strong>Future Trends for the Industry from the Department of Defense</strong></td>
</tr>
<tr>
<td></td>
<td>Moderator: William Pannier, Esq., NDIA – Greater Los Angeles Chapter</td>
</tr>
<tr>
<td></td>
<td>Darren Curtis, Office of Manufacturing and Industrial Base Policy, U.S.</td>
</tr>
<tr>
<td>3:00 PM</td>
<td><strong>Closing Remarks</strong></td>
</tr>
<tr>
<td>3:15 PM</td>
<td><strong>Adjourn</strong></td>
</tr>
</tbody>
</table>
Dear Attendees,

It is my pleasure to welcome you to the fourth Advanced Manufacturing Partnership for Southern California (AMP SoCal) Bi-Annual Meeting. On behalf of the Price School - USC Center for Economic Development (CED), and AMP SoCal partners, I want to thank you for joining us today.

We are excited to present an outstanding line-up of speakers and panelists who are representing the future of aerospace and defense in Southern California. Innovative approaches to manufacturing and business practices are advancing today’s supply chain for tomorrow’s opportunities and we are eager to share this knowledge with you.

The collaboration has grown and developed over the past four years, but we know that there is still much to be done. That’s why it is so instrumental to have the participation of business and industry leaders like you. It is my hope that you leave with valuable information and the knowledge that you have AMP SoCal as an asset, advocate and resource for the success of your company and community.

Sincerely,

Leonard Mitchell
Executive Director of USC Center for Economic Development
Principal Investigator for AMP SoCal

FREE CYBERSECURITY TRAINING FOR MANUFACTURERS
Learn about our online one-day workshop for owners and managers

Our workshop, taught by USC’s renowned cybersecurity experts, translates the U.S. Department of Defense cybersecurity requirements listed in NIST 800-171 into practical steps, so that you walk away with an understanding of how to make your company compliant and cyber secure.

LEARN MORE
Tomás E. Durán
Administrator, Special Projects
(213)740.4283 | tduran@usc.edu
ampsocal.usc.edu/cybersecurity
EXECUTIVE COUNCIL

CO-APPLICANTS

Leonard Mitchell, J.D., M.B.A., M.A.
Professor of the Practice of Economic Development
Executive Director, USC Center for Economic Development
Director, the National Center for Eco-Industrial Development
Lead Co-Applicant & Principal Investigator, AMP SoCal

Danielle Wheeler, DPA
Executive Director, March Joint Powers Authority
Riverside County Representative, AMP SoCal

Mayor Eric Garcetti
City of Los Angeles
Representatives:
Ricardo Vasquez & Max Reyes
LA Mayor's Office of Economic Development
Co-Applicant, AMP SoCal

PILLAR COMMITTEES

Jose Anaya
Dean, Community Advancement & Business Training Center, El Camino College
Supplier Network Vice Chair, AMP SoCal

Ray Elledge
Education Program Manager, Verisurf
Workforce & Training Chair, AMP SoCal

Elizabeth Glynn
Export Advisor, CMTC
International Trade & Export Chair, AMP SoCal

David Goodreau
Chairman, Small Manufacturers Association of California
Workforce & Training Vice Chair, AMP SoCal

Brian Hagerby
Chair, Educational Activities Committee, IEEE Orange County Section
Research & Innovation Vice Chair, AMP SoCal

Ivan Rosenberg, Ph.D.
Executive Director, The Aerospace & Defense Forum
Founder/President, The Uniquely Abled Project
Industry Representative, AMP SoCal

Mike Slavinski
Owner, L & M Machining Center, Inc.
Industry Representative, AMP SoCal

James Watson
President & CEO, California Manufacturing and Technology Consulting (CMTC)
Supplier Network Chair, AMP SoCal

Grace Williams, Ph.D
City of Perris
Infrastructure and Site Development Chair, AMP SoCal

Jeff Williamson
Statewide Director, Center for International Trade Development (CITD),
California Community Colleges,
Director, California State Trade and Export Promotion (STEP)
Trade & International Investment Chair, AMP SoCal

COUNTIES

Talia Barrera
Administration Manager, Workforce Development Board of Ventura County
Ventura County Representative, AMP SoCal

Keith Coleman
Member, Southwest Water & Energy Consortium
Los Angeles County Representative, AMP SoCal

Esperanza Colio Warren
Community & Economic Development Manager, Imperial County
Imperial County Alternate, AMP SoCal

Jo Marie Diamond
President/CEO, East County Economic Development Council
San Diego County Representative, AMP SoCal

Jim Dunning
Director of Economic Development and Technology Transfer,
Cal Poly San Luis Obispo
San Luis Obispo County Representative, AMP SoCal

Carrie Hamon
Deputy Director, Riverside County Economic Development Agency
Riverside County Alternate, AMP SoCal

Julia Potter
Director for Strategic Partnerships and Special Initiatives
Office of the President, California State University, Northridge
Los Angeles County Alternate, AMP SoCal

Gregory Washington, Ph.D.
Dean, The Henry Samueli School of Engineering, UC Irvine
Orange County Representative, AMP SoCal

Danielle Wheeler, DPA
Executive Director, March Joint Powers Authority
Riverside County Representative, AMP SoCal

Mayor Eric Garcetti
City of Los Angeles
Representatives:
Ricardo Vasquez & Max Reyes
LA Mayor's Office of Economic Development
Co-Applicant, AMP SoCal

PILLAR COMMITTEES

Jose Anaya
Dean, Community Advancement & Business Training Center, El Camino College
Supplier Network Vice Chair, AMP SoCal

Ray Elledge
Education Program Manager, Verisurf
Workforce & Training Chair, AMP SoCal

Elizabeth Glynn
Export Advisor, CMTC
International Trade & Export Chair, AMP SoCal

David Goodreau
Chairman, Small Manufacturers Association of California
Workforce & Training Vice Chair, AMP SoCal

Brian Hagerby
Chair, Educational Activities Committee, IEEE Orange County Section
Research & Innovation Vice Chair, AMP SoCal

Ivan Rosenberg, Ph.D.
Executive Director, The Aerospace & Defense Forum
Founder/President, The Uniquely Abled Project
Industry Representative, AMP SoCal

Mike Slavinski
Owner, L & M Machining Center, Inc.
Industry Representative, AMP SoCal

James Watson
President & CEO, California Manufacturing and Technology Consulting (CMTC)
Supplier Network Chair, AMP SoCal

Grace Williams, Ph.D
City of Perris
Infrastructure and Site Development Chair, AMP SoCal

Jeff Williamson
Statewide Director, Center for International Trade Development (CITD),
California Community Colleges,
Director, California State Trade and Export Promotion (STEP)
Trade & International Investment Chair, AMP SoCal

6
September 20, 2018

Dear Partners:

On behalf of the City of Los Angeles, welcome to the Advanced Manufacturing Partnership of Southern California (AMP SoCal) Bi-Annual Meeting. Since 2014, AMP SoCal has played a critical role by bringing together stakeholders from academia, industry and government, from the 11 counties that make up southern California. This partnership has built the framework and strategies for creating a more robust industrial manufacturing ecosystem. These efforts have led to attracting over $1 billion in investment to the region and supporting the creation of middle-class jobs.

Aerospace is woven into our cultural and economic DNA. We have a long history of dreaming, designing, and building products that transform how we travel, how we communicate and how we explore. Our aerospace industry faces both new challenges and opportunities; today you will hear from industry leaders about these trends. I encourage you to speak freely and openly as you discuss issues of critical importance for the future of this sector and to continue collaborating with industry partners, such as AMP SoCal.

Thank you for showing that together we can advance this industry, attract investments, and create new jobs.

Sincerely,

ERIC GARCETTI
Mayor
Libby Williams, Project Manager & Economic Development Specialist  
USC Center for Economic Development-AMP SoCal

Elizabeth “Libby” Williams has more than 20 years of economic development experience working in Southern California which includes among other things, over 10 years at the Los Angeles County Economic Development Corporation with the Business Assistance Program. In 2007, Ms. Williams became the Executive Director of the Los Angeles Economy and Jobs Committee, a private-sector advisory board created by Los Angeles Mayor Antonio Villaraigosa to work with him on key issues of economic development and quality job creation in Los Angeles. Ms. Williams coordinated the committee’s activities to evaluate business attraction and retention efforts in Los Angeles and develop recommendations for action and improvement. Ms. Williams has a BA and an MPA from California State University at Long Beach and a Master in Leadership from the University of Southern California.

Deepak Bahl, Program Director and Co-Principal Investigator  
USC Center for Economic Development-AMP SoCal

Deepak Bahl serves as a Program Director for the USC Center for Economic Development and Adjunct Associate Professor at the USC Sol Price School of Public Policy. He has more than 18 years of professional consulting experience and has managed federal, state, and local projects in the areas of community and economic development. His work experience includes strategic planning, business development, project management, teaching at USC, and policy research and analysis. He has conducted research projects for the EDA, EPA, FTA, HUD, NSF, OEA, Caltrans, local governments, and private foundations among others. He received his Master of Business Administration from the USC Marshall School of Business, Master of Planning from the USC Price School of Public Policy, and Master of Architecture from Clemson University.
Keynote Address

Arnie Streland, Senior Director, Strategy and Business Development
Northrop Grumman

Arnie Streland has more than 30 years of experience in space system development. He currently serves as Senior Director, Strategy and Business Development for Northrop Grumman Innovation Systems where he has strategy and business development responsibilities for Air Force Space & Missile Systems Center (SMC), NASA Jet Propulsion Lab (JPL), other government agencies, aerospace industry vendors, and partners in the Los Angeles area. He has previously held industry positions as Director, Strategy and Business Development for Orbital ATK, and as Manager, Space Program Office for Parsons.

Prior to joining industry, Mr. Streland served 26 years active duty in the United States Air Force with a wide range of assignments in space systems engineering and acquisition. His final Air Force assignment was as Director, Space Superiority Systems Directorate, at SMC.

A native of Pennsylvania, Mr. Streland has a Bachelor’s Degree in Aerospace Engineering from Boston University and Master’s Degrees from the University of Southern California, the United States Air Force Air Command and Staff College and the United States Air Force Air War College.

Panel 1: Opportunities Related to Drones, Space, and Cybersecurity

Aerospace has always been at the cutting edge of technology, with new advances in drones and space exploration reinventing how we travel the skies. But cybersecurity is increasingly necessary to protect that technology, and has become a mandatory measure for the supply chain within the Defense sectors. This panel will discuss opportunities within the drone and space industry, and how mindful cybersecurity measures will protect businesses who pursue those opportunities.

David Barnhart, Director, Space Technology and Systems Group
USC Viterbi School of Engineering Information Sciences Institute

David Barnhart leads ISI’s Space Systems and Technology group, which combines disruptive research with a hands-on, small-satellite design and launch program for USC Viterbi students. Barnhart’s specialties include second-generation space morphology design, robotics applied to and with satellites, and application-based engineering capabilities. He works with space experts both on USC’s main campus, via the Space Engineering Research Center (SERC), and with government and commercial space entities. A SERC founder and current director, he previously developed new aerospace and satellite systems and technologies, design tools that dramatically reduce project time-to-completion, and contact dynamic surface platens for full-size space simulation solutions.

Andrew Duggleby, Ph.D., P.E., C.W.I., Sr. Manager for Launch Operations and Payload Operations
Virgin Orbit

Andrew Duggleby leads the advanced manufacturing group at Virgin Orbit focusing on hybrid additive/subtractive manufacturing, advanced simulation, metallurgy, special processes, and advanced engine technologies. Since getting his Ph.D. in 2006, Dr. Duggleby has been Mechanical Engineering professor for 10 years (Virginia Tech and Texas A&M), CTO/co-founder of Exosent Engineering, a DOT hazardous trailer engineering & manufacturing company. Dr. Duggleby is also currently a US Navy Reserve Engineering Duty Officer working with NAVSEA and SSP (Strategic Systems Program).

Panel 1 continued on next page.
Panel 1: Opportunities Related to Drones, Space, and Cybersecurity

Continued from previous page.

**Clifford Neuman, Ph.D., Director, USC Center for Computer Systems Security**
USC Viterbi School of Engineering Information Sciences Institute

Clifford Neuman is a Scientist at the Information Sciences Institute of the University of Southern California and holds a research faculty appointment in the Computer Science Department. Dr. Neuman received an S.B. degree in Computer Science and Engineering from the Massachusetts Institute of Technology in June 1985. Upon completion he spent a year working for MIT’s Project Athena where he was a principal designer of the Kerberos authentication system. Dr. Neuman began graduate studies in the Computer Science Department of the University of Washington in the fall of 1986, received an M.S. degree in 1988, and a Ph.D. in June of 1992.

**Kent Nerhus, Director, Business Development**
K2 Unmanned Systems

Kent Nerhus is the Director of Business Development K2 Unmanned Systems. Mr. Nerhus has been involved in the sUAS/UAV industry since 2014 obtaining a Section 333 and is a 14 CFR Part 107 licensed UAS pilot. He has been working with K2 Unmanned Systems since February 2017.

**The Case for Adopting Additive Manufacturing and New Manufacturing Technology**

*Optimize your business with the latest in cutting-edge machinery and production techniques*

**Chris Wentworth, Additive Manufacturing Technology Practice Lead**
CMTC

Chris Wentworth is a product development and Additive Manufacturing (AM) engineer. With over 25 years of experience in manufacturing, 15 of those working with AM, Mr. Wentworth brings a wealth of knowledge to CMTC, and to our clients helping them adopt and integrate additive technologies. Over the years he has worked with companies like Boeing, Western Digital, and Hitachi to solve manufacturing problems. He has a proven record of building businesses and gaining customer trust. Mr. Wentworth has been a speaker on Additive Manufacturing and Product Development at events and forums sponsored by UCI, IIT Tech, Saddleback CC and LBCC.

**William Haas, Procurement Manager, BDS Supply Chain**
The Boeing Company

Will Haas is a Manager within the Supply Chain function of Boeing Defense, Space & Security (BDS). Mr. Haas leads a team of professionals procuring machined parts, standards, composite structures, tooling, and additive manufacturing commodities for multiple defense and space programs. Additionally, he leads the BDS Center of Excellence for Additive Manufacturing procurements across the enterprise. In this role, Mr. Haas leads all supplier qualification and procurement activities for BDS additive manufacturing. He holds an undergraduate degree in Business Administration from Gonzaga University and an MBA from Pepperdine University. Finally, Mr. Haas is an active supporter of the USC Swim With Mike Foundation, a charitable scholarship fund for physically-challenged athletes.
Panel 2: Preparing the Next Workforce

Hire the employees your manufacturing business needs by utilizing a variety of resources and best practices

Julianna Kirby, Director of Client Services, Chief Operating Officer
Training Funding Partners

Julianna Kirby is Training Funding Partners’ Director of Client Services and Chief Operating Officer. She directs service delivery and client relationship management as well as company operations. TFP is a workforce development consultancy focused on helping employers access services from the workforce system to develop workforce pipelines, career pathways, pre-apprenticeships and apprenticeships, and connects employers to resources for recruiting, funding and training of newly hired and incumbent workers – helping them remain competitive. Ms. Kirby has 18 years of experience building relationships with employers, community colleges, universities, workforce development boards and other state and federal funding agencies.

David Fisher, President
S&H Machine

With roots beginning in 1960, S&H Machine has evolved into a recognized Southern California aerospace manufacturing company. The company manufacturers aircraft and missile system products for companies such as Crane Aerospace, Eaton Aerospace, Esterline, Parker Aerospace, Pacific Scientific, Triumph Group, Woodward, and so many more. Mr. Fisher has twenty-five years of experience working in Aerospace & Defense manufacturing. Mr. Fisher is an alumnus of CSUN, joined S&H Machine in 1995, and was appointed President in 2008 leading the company into award winning status with customers, suppliers, and business groups for exceptional quality and reliability. He is the Founder and current President of the Southern California Manufacturing Group (SCMG).

Linda Kurokawa, Executive Director, Community Education & Workforce Development
MiraCosta College

Linda Kurokawa is the Executive Director of MiraCosta College’s Community Education and Workforce Development. She is also the Director for MiraCosta’s Technology Career Institute. Ms. Kurokawa has been in education for the past 21 years, 11 of these at MiraCosta College. She has a Master’s degree in Education with a specialty in Curriculum Design and a Bachelor’s Degree in Health Science. Ms. Kurokawa is also an Executive Board member of the San Diego Maritime Alliance. She recently won this year’s Lifetime Achievement Award from the California Association of Community and Continuing Education as well as this year’s Excellence in Economic Development Award from the San Diego County North Economic Development Council.

Joel Morgan, Regional Director
Goodwill Southern California

Joel Morgan has been with Goodwill of Southern California for three years, serving in the Workforce & Career Development Department. Prior to his time with Goodwill of Southern California, Mr. Morgan served as a Campus President for a Junior College in Southern California. He has a Bachelors Degree in Social Science from Ashford University. He currently is a member of the Mayors Committee for Economic Development (in the cities of Santa Clarita and Palmdale). Mr. Morgan also serves as a committee member on the Uniquely Abled Program, which is structured to create opportunities for individuals who are disabled and seeking training and / or employment. He is married to his wife of twenty one years, Melissa. They have four children together and recently adopted three other children to complete their family. Mr. Morgan and his family live in Palmdale California.
**SPEAKERS**

**Future Trends for the Industry from the Department of Defense**

*Industrial Policy office provides detailed analyses and in-depth understanding of the increasingly global, commercial, and financially complex industrial supply chain essential to our national defense*

---

**Darren Curtis, Senior Technical Analyst, Contractor Support to OSD/A&S - Industrial Policy (IP), Office of Manufacturing and Industrial Base Policy, U.S. Department of Defense**

Darren Curtis supports the Industrial Base Analysis and Sustainment (IBAS) efforts within the Office of Secretary of Defense - Industrial Policy (OSD/INDPOL), whose mission is to ensure the U.S. maintains access to a robust, secure, resilient, and innovative industrial base upon which the Department of Defense (DoD) can rely on to meet the needs of current and future Warfighter requirements. His experience includes one 15 years supporting a broad range of DoD acquisition as well as Research and Development (R&D) programs within the Pentagon including the F-35 Joint Program Office, various Intelligence, Surveillance, Reconnaissance (ISR) platforms, and unmanned systems. His Science and Technology (S&T) support spans aircraft, propulsion and power systems, munitions, weapons systems, space technologies, mission/sensor systems, and other advanced systems.

---

**William Pannier, Esq., Pannier Law Board Member, NDIA-Greater Los Angeles**

William Pannier is a California attorney practicing in the areas of federal, state, and local government contracts. He assists contractors of all sizes, in various industries, across a broad range of issues. He represents federal contractors nationwide, and state and local contractors in California, working with a wide spectrum of federal, state, and local agencies.

Before forming his own firm, Mr. Pannier served in the U.S. Air Force JAG Corps, where he concentrated in government contracts, advising on all aspects of the procurement process – from acquisition strategy to source selection, award, and contract administration. Among other assignments, he supported the Space and Missile Systems Center in Los Angeles. After that, he spent 10 years in the government contracts group of a prominent international law firm, where he provided government contracts counseling and handled cases before the Government Accountability Office, U.S. Court of Federal Claims, various boards and offices of hearings and appeals, and California courts.

---

*All presentations are recorded throughout the day.*

*Videos from the event will be available for viewing on the AMP SoCal website at ampsocal.usc.edu/presentations*

---

**Thank you to our sponsors**

**Gold Sponsor**

- City of Perris
  - Los Angeles Department of Water & Power

**Silver Sponsor**

- CMS North America, Inc
  - Elsevier
  - March Joint Powers Authority
  - Northrop Grumman

**Exhibitors**

- CMTC
  - California State University, Long Beach
  - California State University, Northridge
  - Cytellix
  - Goodwill Southern California
  - MAKEiT, Inc.
  - Tooling U-SME
  - Uniquely Abled Project
PARTNERS

COMMUNITY & ECONOMIC DEV.
• California Manufacturing Technology Consulting (CMTC)*
• Community Development Commission of LA County
• Helping Communities Work
• Governor’s Office of Business and Economic Development (GO-Biz)
• Imperial Valley Economic Development Corporation
• Korean Churches for Community Development*
• Los Angeles Area Chamber of Commerce*
• Los Angeles County Economic Development Corporation (LAEDC)*
• San Diego East County Economic Development Council*
• San Diego North Economic Development Council*
• San Diego Regional Economic Development Corporation*
• San Gabriel Valley Economic Partnership*
• Santa Clarita Valley Economic Development Corporation
• Santa Barbara Region Chamber of Commerce: Economic Vitality Team of Santa Barbara Co.
• South County Economic Development Council (San Diego)*
• Valley Economic Alliance*
• Ventura County Economic Development Collaborative*

GOVERNMENT Counties
• Imperial County
• Los Angeles County*
• Riverside County
• San Bernardino County

Cities, MPOs and JPAs
• City of Compton*
• City of El Segundo*
• City of Gardena*
• City of Industry*
• City of Los Angeles*
• City of San Diego*
• City of Whittier*
• Gateway Cities Council of Governments*
• March Joint Powers Authority
• Southern California Association of Governments*

Export Partners
• Centers for International Trade Development (CITD)
• LARESC*
• Port of Long Beach*

INDUSTRY Manufacturers
• 3D Systems
• Accratronics*
• Ace Clearwater*
• AIP Aerospace*
• Airborne Technologies
• Alcoa*
• AMRO Fabricating Corporation*
• Anca International, LLC
• Boeing*
• EOS
• Framarx*
• Haas Automation, Inc.*
• Hi Tech Precision
• Horizon Hover
• Irvine Sensors
• L & M Machining Center
• Lucix*
• MAKEIT, Inc.
• Maroney Company*
• Metal Fabrication and Art, LLC
• Microcosm Incorporated*
• Mitchell Grining Corp of California
• Monarch Inc.*
• NEO Tech
• Northrop Grumman*
• Owens Design
• Pankl*
• Phase Four
• Philatron*
• Ritec*
• Rocker Industries*
• Stagg Group
• United Aeronautical Corporation*
• Validyne Engineering
• Votaw Precision Technologies*
• XAir Sky

Industry/Professional Associations
• The American Institute of Aeronautics and Astronautics (AIAA)
• Institute of Electrical and Electronics Engineers (IEEE)
• The Los Angeles National Tooling and Machining Association (LA/NTMA)
• Small Manufacturers Association of California (SMAofCA)
• SME
• Small Manufacturers’ Institute (SMI)

Manufacturing Support
• American Business Bank
• Aerospace & Defense Forum
• Apprentice Power
• Blue Fields Digital LLC
• Brooks Acordia IP Law
• California Network for Manufacturing Innovation (CNMI)*
• E7 Defense
• GuardSight
• Infologic
• Janes Capital Partner
• Kane Aerospace
• KickStage Consulting
• Law Office of William Pannier
• LaserLight Networks Inc.
• MatterHackers
• Methods 3D
• Perception Robotics
• RampTech Engineering LLC
• Smart Manufacturing Leadership Coalition (SMLC)*
• Training Funding Partners
• Verisurf 3D Measurement

RESEARCH Universities
• Cal Poly Pomona*

WORKFORCE & TRAINING Workforce Development Boards/ AJCC
• America’s Job Center of California
• City of Los Angeles Workforce Investment Board*
• Goodwill Industries of Southern California
• LA Works – San Gabriel Valley*
• Orange County Workforce Investment Board*
• San Diego Workforce Partnership, Inc.*
• Southeast Los Angeles County Workforce Investment Board*
• South Bay Workforce Investment Board*
• Ventura County Workforce Development Board*
• Verdugo Workforce Investment Board*

Training Provider
• Aerospace Safety Professionals
• Vocademy: The Makerspace

School Districts
• Antelope Valley Union High School District
• Cerritos College*
• Chaffey College
• El Camino College*
• Glendale Community College*
• Golden West College
• Long Beach City College*
• East Los Angeles City College*
• Los Angeles City College*
• Los Angeles Harbor College*
• Los Angeles Mission College*
• Los Angeles Pierce College*
• Los Angeles Southwest College*
• Los Angeles Trade-Tech College*
• Los Angeles Valley College*
• West Los Angeles College*
• MiraCosta College*
• Saddleback College*

An * indicates an AMP SoCal founding partner.
ABOUT AMP SoCal

The Advanced Manufacturing Partnership of Southern California (AMP SoCal) is a collaboration of government, academia and industry united in the common goal of strengthening the industrial ecosystem for aerospace and defense manufacturers throughout the 10-county Southern California region. The Price School-USC Center for Economic Development leads the AMP SoCal effort, in partnership with the City of Los Angeles, and more than 150 companies and organizations. Together the AMP SoCal network leverages the combined knowledge, innovation and support of its members to grow and sustain the A&D industry and its supply chain. To learn more about how AMP SoCal is building a better future for the A&D industry, visit AMPSoCal.org.

facebook.com/ampsocal  twitter.com/amp_socal  linkedin.com/company/amp-socal

UPCOMING EVENTS

**AMP SoCal Innovation Forum: Exporting to Mexico for Aerospace Suppliers**
*October 16, 2018*  
8 AM - 10 AM  
USC Orange County Center (and Online)  
Irvine, CA

**California Economic Summit**  
*November 15-16, 2018*  
Hyatt Regency Sonoma Wine Country  
Santa Rosa, CA

**AeroDef Manufacturing Conference**  
*April 29- May 2, 2019*  
AMP SoCal Booth, Long Beach Convention Center  
Long Beach, CA

**Space Tech Expo USA**  
*May 21-22, 2019*  
AMP SoCal Booth, Pasadena Convention Center  
Pasadena, CA

**AMP SoCal Annual Summit**  
*2019*  
TBD  
Los Angeles, CA
California Aerospace and Defense

- Value Added: $18.7 Billion
- Average Wages: $100,000
- 17% National Employment: 102,630

Southern California

- DoD A&D Spending: $9.79 Billion
- Home to 15% of U.S. A&D Manufacturing Firms

SoCal Industry Cluster Employment

- 91,387
- 76,374
- 31,490
- 20,755

- A&D
- Agriculture
- Medical Device
- Biopharma

- Los Angeles County: $7.3 Billion
- San Diego County: $1.2 Billion

1,411 AS9100 Certified Firms

#1 Industry for Trade Value
PROUDLY SUPPORTING A&D MANUFACTURERS IN THE SOUTHERN TEN COUNTIES OF CALIFORNIA

CONTACT
ampsocal@usc.edu

AMP SoCal - USC Center for Economic Development
3335 S. Figueroa St. Unit A
Los Angeles, CA 90089-7273

AMPSoCal.org